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CONTENTS OF REEL 111

1) The Gardener's monthly and horticultural advertiser, v.1, 1859
MNS# PSt SNPaAg111.1

2) The Gardener's monthly and horticultural advertiser, v.2, 1860
MNS# PSt SNPaAg111.2

3) The Gardener's monthly and horticultural advertiser, v.3, 1861
MNS# PSt SNPaAg111.3

4) The Gardener's monthly and horticultural advertiser, v.4, 1862
MNS# PSt SNPaAg111.4

Title: The Gardener's monthly and horticultural advertiser, v. 1

Place of Publication: Philadelphia

Copyright Date: 1859

Master Negative Storage Number: MNS# PSt SNPaAg111.1

<2102113> * Form:serial 2 Input:HHS Edit:FMD
008 ENT: 980611 TYP: d DT1: 1859 DT2: 1875 FRE: m LAN: eng
010 sc 85001034
037 PSt SNPaAg111.1-115.1 $bPreservation Office, The Pennsylvania State University, Pattee Library, University Park, PA 16802-1805
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246 16 Gardener's monthly $f1860-
246 14 Gardener's monthly and advertiser horticultural $f1860-
260 Philadelphia [Pa. $bs.n. $c1859-1875]
300 17 v. $bill. $c26-36 cm.
310 Monthly
362 0 Vol. 1, no.1 (Jan. 1, 1859)-v. 17, [no. 12] (Dec. 1875).
500 Title from cover.
500 Some pages misnumbered
515 Vol. 10, [no. 1] (Jan. 1868)- called also new series; vol. 1, no. 1-
533 Microfilm $mv.1 (1859)-v.17 (1875) $bUniversity Park, Pa. : $cPennsylvania State University $d1998 $e5 microfilm reels ; 35 mm. $f(USAIN state and local literature preservation project. Pennsylvania) $f(Pennsylvania agricultural literature on microfilm)
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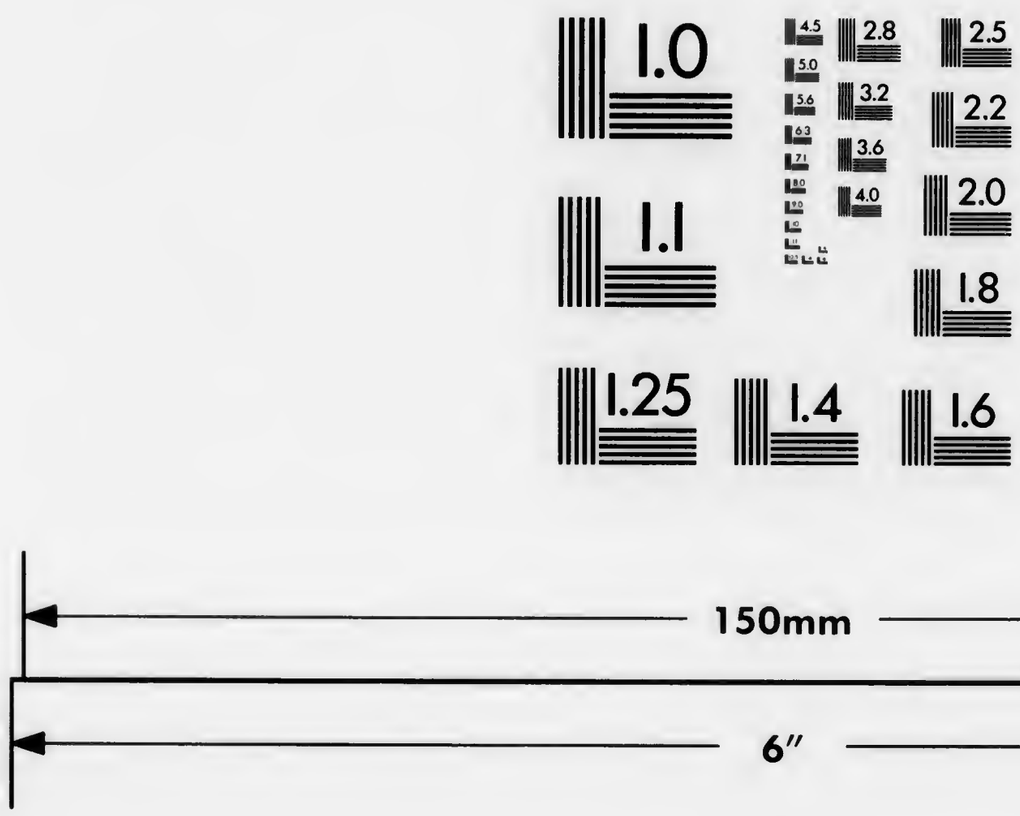

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Volume: 1, 1859

The Gardener's Monthly.

AND

HORTICULTURAL ADVERTISER.

Devoted

Horticulture, Arboriculture,

Botany and Rural Affairs.

EDITED BY

THOMAS MEEHAN,

VOL. I.—1859.

PUBLISHED AT

No. 23 NORTH SIXTH STREET, PHILADELPHIA.

G
SB1
G286
v. 1
1859
Rg. 11921

ILLUSTRATIONS.

A.

Acher Cherry, 78.
Allen Raspberry, 122.
Amateur Fruit Gatherer, 147.

B.

Bowood Muscat Grape, 109.
Begonia Rex, 170.

C.

Central Park, 9.
Culture of the Grape Vine in pots, 106.
Cheap Country House, 3 cuts, 184-'5.
Cheap Glass Houses, 116.
Cyanophyllum magnificum, 151.
Cryptomeria and Hot Houses of A. C. Pracht, 2 cuts, 153-'4.

D.

Democrat Pear, 8.
Design for a small Garden, 103, 180.
Des Nonnes, or Beurre de Brignais Pear, 173.
Drag Hoe, 40.

E.

Evergreen Hedges, 69.
Ericsson's Caloric Engine, 10.
Entrance Gates, 103.

F.

Floral Wreath, 60.
Fruit Ladder, 3 cuts, 100.
Fondante D'Automne Pear, 2 cuts, 104.
Fillmore Strawberry, 105.
Floral Design, 156.
Flower Trellis, 159.
Fern Pillars, 159.

G.

Garden Decorations, 3, 20, 69, 70.
" Walks, 2 cuts, 41.
" Labels, 5 cuts, 41.
" Seats, 7 cuts, 149.
" Seat, 159.
" Chair, 175.
Grafting, 5 cuts, 22.
" the vine, 24.
Golden Hamburg Grape, 109.
Gruver's Early Apple, 155.

H.

How to make Layers, 2 cuts, 86.
How Hot Air or Water circulates, 118.
Hornet Raspberry, 122.
Hicks' Apple, 156.

I.

Improving Cottage lots, 39.

L.

Libocedrus and Wellingtonia, 2 cuts, 87.
La Versaillaise Currant, 123.
'Long Grape,' 186.

M.

Manetti Rose stocks, 5 cuts, 37.
Measuring height of Trees, 41.
Model Cottage, 85.
Mendenhall's Dibbles, 86.
Manufacture of Slate, 2 cuts, 120.
Mather Pear, 155.
Maranta alba lineata, 189.
" micans, 189.
" regalis, 189.
" vittata, 189.

N.

New Aquarium, 59.
" Use for Old Trees, 2 cuts, 133.
" Weeping Norway Spruce, 135.
" Watering Tube, 141.
" Plant Protectors, 164.
" Garden Label, 168.

O.

Old Tree, 58.
Ornamental Greenhouses, 59.

P.

Plan for Villa Garden, 78.
Propagating Table, 19.
Passiflora Decaisneana, 21.
Plans of Cheap Cottages, 4 cuts, 21.
Plan of Fairmount Park, 57.
" for a Rose Garden, 154.
Protecting the Fig, 7.
Pinus patula, 169.
Platycerium grande, 170.
Protecting Transplanted Trees, 175.

Q.

Quercus fagiformis, or Beech Oak, 62.

R.

Rose of Jericho, 3 cuts, 83.
Rustic Adornments, 2 cuts, 85, 3 cuts, 98, 4 cuts, 116, 3 cuts, 132.
Richland Plum, 154.
Ravenswood Pear, 155.
Rustic Flower Baskets, 3 cuts, 165.

S.

Sir Joseph Paxton's Horticultural Buildings, 79.
Slate Boxes, 183.
Slate for Tree Boxes, 101.
Sonerilla margaritacea, 189.
Stead's Bouquet Stand, 12.
Susan's Spice Apple, 186.

T.

Training Fruit Trees, 7.
Tyes' Hyacinth Glasses, 29.
Thatch, 6 cuts, 36.
Things about Baltimore, 86.
" around Philadelphia, 104.
Transparent Raspberry, 122.
Thatching, 2 cuts, 132.
Transplanting Large Trees, 137.

V.

Vineries and Orchard Houses, 5 cuts, 180.

W.

Weeping Larch, 76.
Waltonian Plant Case, 9.
Weed, Seed and Ant Killer, 182.

INDEX.

A.

Ables monstrosa, 176.
Acclimatation, French Society of, 12.
Acorn and Chiccory Coffee, 44.
Acacia spectabilis, 88.
" onoides, 89.
Achimines New, 151.
Acknowledgement, 157.
Acknowledgement, 184.
Advertisements, 73.
" Horticultural, 121.
" Fall, 138.
Advertising, Perfection in, 141.
Adornments Rustic, 85, 98, 116.
Adenandra umbellata, 151.
Æsculus Californica, 55.
" Indica, 123.
Æschynanthus cordifolius, 151.
Aerides, Wrightianum, 174.
Agassiz's Collections of Natural History, 45.
Agapetes buxifolia, 55.
Ague, Plant for, 93.
Agave Jacquiniana, 88.
" maculosa, 151.
Agaradh, Dr., Obituary on, 108.
Agricultural and Horticultural Society, Mobile, 128.
Agriculture for the School and Farm, 121.
Agricultural Society, Penna. State, 143.
Agricultural Soc., The Exhibition of the State, 138.
Air or Water circulates, How hot, 118.
Aloe, a cure for burns, 46.
Alabama, Letter from, 66.
Allamanda violacea, 123.
American Peaches, 31.
Amaryllis, Cultivation of the, 38.
Amherstia nobilis, 78.
Androsace lanuginosa, 26.
Anna Grape, 27.
Anemone Japonica, 30.
Angræcum sesquipedalle, 123.
An awful place, 175.
Annuals, New, 173.
Aponageton distachyon, 26.
Apricot, the Kaisha, 13.
Apricots for Kentucky, 28.
Apples, new varieties of, 13.
" dwarfing, 24.
" dwarf, 27.
" for Kentucky, 28.
" in Oregon, 40.
" for Western N. York, 44.
" in June, 46.
" root grafting of, 67.
" Crab, 89.
" Scarce 89.
" Claude, new English, 134, and Pears, keeping, 142, 156.
" The Cider and the Benoni, 158.
" Rivers' mode of keeping, 159.
" from B. S. Ryder, 172.
Apple, Susan's Spice, 186.
" North American best, 187.
" Tree Borer, 28.
" Seedlings, to raise, 44.
" Jelly, to make, 45.
" Seed, to grow, 52.
" Preserves, 76.
" Baker, 89.
" New, 89.
" Royal Charlotte, 89.
" Transparent, 89.
" Trees, diseases in, 89. 109.
" Nantchalee, 122, 155.
" Trees for Fence posts, 141.
" Hicks' and other Notes, 158.
Apple, Gruver's Early, 155.
" Schæffer's, 155.
" Oskaloosa, 156.
" Hick's, 156.
" Seed, 157.
" New Black, 173.
" Schell, 173.
Apple-Pie melon, 22.
Apple Pie Melon, The, 181.
" " " Cooking, 188.
Aquarium, New, 59.
Arches, Live, 175.
Areca sapida, 174.
Art, Our, 124.
Arborvitæ, 73.
Arboretum at Washington, 27.
Asparagus, To Cook, 140.
" Forcing, 141.
" Beds, 90.
Austrian Pine, 5.
Azalea occidentalis, 55.
" indica gigantiflora, 25.

B.

Baker Apple, 89.
Baltimore, Weather in, 76.
" Things about, 86.
Banks, Planting river, 83.
Barnstown, Obituary on Dr. Jas. 11.
Barbarossa Grape, The, 134.
Barratt, Obituary on Dr. John P. 187.
Boronia Drummondii, 151.
Begonia lucinata, 42.
" Rex, 88.
" xanthina, 88.
" " Lazula, 135.
Begonias, New, 89.
Begonias, To propagate, 182.
Beurro Auguste, Pear, 89.
Beech Oak, Quercus fagiformis, Or, 62.
Bilbergia macrocalyx, 123.
Blackberry Wine, 131.
" New, 156.
Blaberopus veneatus, 186.
Bliss' new store, 187.
Books and Catalogues—Jan., 10. Feb., 25. March, 42. April, 60. May, 73. June, 90. July, 107. Aug., 121. Sept., 139. Oct., 159. Nov., 172. Dec.,
Botanical collector, 13.
Bouquet stands, Stead's, 12.
Botanic Gard'ns, Manchester, 24.
" " Kew, London. 70.
" " Something which they might do. 62.
" Society Royal, London, 96.
Botany, Lecture on, 175.
Bois de Boulogne, 101
Bowood Muscat, Grape, 109.
Box edging, clipping, 76.
Borders, Grape, 114.
Boxes, Slate, 124.
Bouquet plants for winter, cheap, 121.
" Flower, A beautiful, 139.
Boiler, Weathered and Cherevoys, 142.
" Polygalæfolia, 151.
Brachychiton Bidwilli, 151.
Brassica rapa, 71.
Brassavola fragrans, 25.
Burtonia scabra, 11.
Brooklyn, New Park in, 183.
Budding Knife, Fuller's, 158.
" Knives, 133.

C.

Carrot, Notes on the, 18.
Cacti, Propagating of, 11.
Carr, Obituary on Mrs. A. B., 11.
Cabbages from New York, 29.
Catalogues, Books, &c.—Jan., 10. Feb., 25. March, 42. April, 60. May, 74. June, 90. July, 107. Aug., 121. Sept., 139. Oct., 157. Nov., 172. Dec.,
Catawissa Raspberry, 4, 36,
Carburetted Hydrogen, effect on plants, 26,
Caladium, varieties of, 30.
Calecolaria amplexicaule, 30.
Calceolarias, 141.
Casabar Melon, The, 54,
Canada, Grape Culture in, 61.
" The June frost in, 123.
Catskins, 88.
Campanumæa Javanica, 88.
Camellias, Propagation of the, 42.
" Grafting, 92.
" Striking, 93.
Camellia, a large, 13.
" Pearl, 89.
Calumny, Honesty versus, 115.
Camellias, Collection of, 188.
Celery culture, 29.
" Diseases in,
Cemeteries, Destruction of trees in, 174.
Central Park, New York, 8, 28, 137, 174.
Chinese Sugar Cane, 187.
Charlton's Strawberry, 188.
Chandler & Son, 13.
Champagne, Rhubarb, 104, 121,
" Crab Apple, 154.
Chateau de Vervaine, in France, Fruit Garden of the, 125.
Cheirostemon-Platanoides, 174.
Chemist, Letter from, 157, 166.
Cherry, Black Tartarian, 14.
" Cerise, Acher, 78.
" Flemish, 93.
" Moyer's Honey Heart, 121.
" Ground, 157.
Cherries for Kentucky, 28.
Chinese Yam, 13, 45.
" Peach, 26.
Chlorine for germinating seed, 77.
Chicago, New Cemetery in, 76.
Chrysanthemum carinatum, 75, 110.
" Dwarf, 90.
Chufus, or earth almonds, 44.
Cirrhopetalum Cummingii, 11.
Cineraria amelloides, 110.
Clematis flammula, 12.
Clapton Nursery, London, 47.
Climbers, 115.
Clifton Park, Saracaria at, 120.
Climatology of the United States, 41, 120.
Climate, Canadian, 147.
Clianthus Dampierii, 92.
Closing Chapter for 1859, Our, 184.
Club Show, Smithfield, London, 101.
Cologyne elata, 11.
" Schilleriana, 25.
Cold in Canada, 45.
Columnea scandens, 74, 151.
Columbia, S. C., Fine trees in, 91.
Coleonema pulchrum, 135.
Compass plants, 45.
Communications, Jan., 2. Feb., 18. March, 34. April, 50. May, 66. June, 82. July, 98. Aug., 114. Sept., 130. Oct., 146. Nov., 164. Dec., 180.
Country House, A cheap, 184.
Congratulatory and explanatory, 6.
Conifers, Grafted, 92.
Cooking, Preserving Eggs for, 93.
Correspondence, 7.
Correspondents, To Readers and, 106.
Costus Verchaffeltianus, 25.
Country, Common objects of the, 130.
Corn, Preparing green for winter, 75.
Cottagers, Kale, 80.
Cottage lots, improving of, 39.
" Winter gardening, 6.
" A Model, 85.
Covering for floral design, 25.
Cranberry trade in Wisconsin, 28.
" Culture, 139.
Crops, Fruits, &c., 103.
Cryptomeria Japonica, a fine, 27.
Creation, The Young, 167.
Cryptomeria and Hort. houses of A. C. Pracht, Esq., 153.
Currants, Fine varieties of, 13.
" La Versaillaise, 123.
" To clean green, 149.
Cuttings, striking in Moss, 19.
" Rose and Grape, 60.
" Pots, Fungus in, 121.
" Evergreens from, 171.
Cuphea strigillosa, 30.
Curiosity, A, 77.
Curculio, Remedy against the, 91.
" The, 91.
" Again the, 91.
" Remedy, Mathews, 141.
Cucumbers, Large, 107.
Cure for wounds, 110.
Cyclamen, Culture of the, 3. 93.
Cypripedium Faireanum, 42.
Cyanophyllum magnificum, 151.

D.

Dasylirium Hartwegianum, 88.
Datura meteloides, 55.
Dahlia, The new Zelinda, 93.
Dahlias, New, 174-5.
Davis' Seedling Potato, 141.
Democrat Pear, 8.
Deodar Cedar Seed, 46.
Delaware Grape, History of the, 164.
" " 3, 5, 27, 75.
Dendrobium crepidatum, 11.
" albo sanguineum, 151.
Dendromecon rigidum, 151.
Des Nonnes, or Beurre de Brignais Pear, 173.
Devereaux Grape, 186.
Diana Grape, 27.
Dillenia speciosa, 42,
Diclytra spectabilis, 73.
Dioscorea, and other matters, 181.
Dipteracanthus calvascens, 74.
" affinis, 174.
Diploicna Dampierii, 74.
Dibbles, Mendenhall's, 86.
Dillwynia peduncularis, 135.
" floribunda, 135.
Dianthus Chinensis Heddewigii, 174.
Doronicum Bourgoi, 11.
Domestic Intelligence—Jan., 9. Feb., 26. March, 44. April, 61. May, 76. June, 91. July, — Aug., 124. Sept., 140. Oct., 158. Nov., 174. Dec. —
Draconas, To propagate, 182.
Dry Soil, Plant for a, 13.
Dried Whortleberries, 6.
Drag Hoe, 40.
Drag-hoes and spade forks, 134.
Drying Pumpkins, 45.
Drainage, Thorough, 107.
Dr. Uhler's mode of raising heat, 43, 73.
Dryas Drummondii, 74.
Dwarf Apples, 27.
" Prolific okra, 27.

E.

E. B. J. Madison, 157.
Editorial difficulties, 23.
Editor with money, 77.
Eichornia tricolor, 42.
Ellsworth's Nurseries, 28.
Elder bush, 44.
England, American Pears in, 93.
Entrance Gates, 102.
Entomology, 141.
Epiphyllums, culture of, 4.
Epigynium acuminatum, 42.
" Leucobotrys, 88.
Ericsson's caloric engine, 10.
Eugenia Ugni, 77.
Eureka Grape, 155.
Evergreens, Pruning, 25, 100.
" Raising from Seed, 32.
" To graft, 46.
" Hedges, 68.
" 60.
" Red spider on, 90.
" Protecting, 172.
Exochorda grandiflora, 55.
Evergreens, Hardy, near Boston, 187.

F.

Fairmount Park, the new Philadelphia, 57.
Fair at Lancaster, Pa., 96.
Fence posts, Apple trees for, 141.
Fern Pillars, 159.
Fig, protecting the, 6.
Figs, to dry, 120.
" Flue, 139.
Flower Garden, Hints for—Jan., 1. Feb., 19. March, 34. April, 49. May, 65. June, 81. July, 98. Aug., 113. Sept., 129. Oct., 145. Nov., —. Dec., —.
Flowering shrubs, 23.
Flower Markets, 68.
" Canadian Wild, 139.
" Trellis, 159.
" Baskets, Rustic, 165.
" Double, 171.
Flowers, Packing, 171.
Floral wreath, 60
" decoration, 152.
" design, 156.
Floral Wreaths, 183.
Flora of Oude, 80.
Fleming, Mr. 79.
Foreign Intelligence—Jan., 12. Feb., 29. March, 45. April, 62. May, 77. June, 92. July, 110. Aug., 125. Sept., 141. Oct., 159. Nov., 175. Dec.,
Foreign Correspondence, 14, 31, 46, 63, 94, 110, 126, 143, 176.
Forcing, Hints for Jan., 1. Feb., 18. March, 34. April, 50. May,—. June, 82. July,—. Aug.— Sept.— Oct., 146. Nov., 164. Dec., —
Forsythia suspensa, 11.
Forcing the vine, 25.
Fork vs the Spade, 55.
Foreign Grape, New, 156, 173.
Fruits in France, Pot, 188.
Fruit Garden, Hints for Jan., 1. Feb., 17. March, 34. April, 49. May, 65. June, 81. July, 98. Aug., 114. Sept., 129. Oct., 145. Nov., 162. Dec.,—
Franklin Grape, 43, 67, 73.
Fremontia Californica, 93.
Fruits for Kentucky, 28.
" Growing in Georgia, 28,
" in Alabama, 52.
" in the West. 73.
" &c., in Ohio, 133.
" in Indiana, 167.
" Crops, &c., 85.
Fruit trees, training of, 78.
" " Seeds of, 90.
" " Digging about, 93.
" Ladder, A., 100.
" Gatherer, the amateur, 147.
" Growers' Society of Western New York, 107, 128.
" Growers' Society of Eastern Pennsylvania, 166, 177.
" Growers, Troubles of, 169.
Fuchsia corrallias, 13.
" serratifolia, 45.
" simplicicaulis, 88.
" New, 89.
Fumaria, a fine new hardy, 93.
Fungus in Cutting-pots, 121.

G.

Garden, Design for a small, 180.
Garden Decorations, 3, 20, 69.
" Syringe, 9.
" Walks, 41.
" Labels, 41.
" Design for a Small, 103.
" Seat, 149, 159.
" New Horticultural, 160.
" Mexican Botanic, 176.
Gardens in Louisville, 28.
" Royal Botanic, Kew, 70.
" Kew, 88.
" Plans for Villa, 78.
Gardener, Honors to a, 115.
Gardener's Club, Chicago, 27.
" Society, " 128, 144.
Gardening in Alabama, 43.
" Landscape,
Galeotti, Obituary on M. H. G., 11.
Gas in the country, 12, 41.
" vs Trees, 91.
Gates, Entrance, 102.
Georgia, Letter from, 2.
Generation, phenomena of, 12.
George Peabody Rose, 73.
Geranium Scariet, 73,
German stocks, 79.
Ghishurt's Compound, 176.
Glass houses, Cheap, 116, 121.
Gloxinias, New, 151.
Glazed Muslin, 56.
Gooseberry, Mildew on the, 13.
" The mountain Seedling, 86.
Good joke, 45.
Gourd, varieties of the, 30.
Goethe and Meyer, 84.
Golden Hamburg Grape, 76, 109, 135.
Grafting Oranges, 14.
" Several hints on, 22.
" the Vine, 24.
" on the Bark, 30.
" Evergreens, 46.
" Grape vines, 53.
Grape, The Question, 8.
" Vines in pots, 10.
" " graftings, 53.
" Culture in Canada, 61.
" Vines in pots, 10.
" " " Culture of the, 106.
" Culture of the Dwarf in pots, 106.
" Vines in Pots, 10.
" " Distinctive characteristics of the foreign and native, 99.
Grape vines, the bark of for'gn, 171.
" Vine, What a, 174.
" Borders, 114.
" Hybrids, 77.
" Growers, Meeting of, Philadelphia, 177.
" Anna, 27.
" The Barbarossa, 134.
" Black Tennessee, 173.
" Clara, 27.
" Delware, 27, 75, 171.
" from Cleveland, New, 173.
" Diana, 27.
" Early Green Madeira, 109.
" Eureka, 155.
" The Franklin, 67.
" Golden Hamburg, 76, 135.
" Hartford Prolific, 19, 27.
" Herbemont, 27, 175.
" The King, 155.
" Lenoir. 173.
" Logan, 171.
" Lady Down's Seedling, 134.
" The Musiang, 166.
" Muscat Hamburg, 171.
" New, 89.
" " Foreign, 156, 173.
" Rebecca, 27, 172.
" Taylor, 155.
" Union Village. 27
" York Madeira, 27.
Grapes, New, 27.
" Baldwin's Early, 27.
" Bowood Muscat, 109.
" Canby's August, 27.
" El Paso, 27.
" Golden Hamburg, 109.
" Hyde's Eliza, 27.
" Propagating of, 11.
" in California, 28.
" Shanking of, 38.
" in the open air, Foreign, 61.
" Fine late, 122.
" Distinguishing Native from Foreign, 148.
Grafts. 73.
Grafted conifers, 92.
Graperies in Buffalo, 175.
Gravel walks and roads, Weed, seed and ant killer for, 182.
Grafting-cloth, Notes on, 183.
Grafting, a new trealtise on, 188.
Grape, Lenoir and Devereaux, 186.
" The Long, 186.
Green House, Hot House, and Stove, 185.
Greenhouses Moveable, 59.
" Ornamental, 59.
Green Fly, hot water for, 103.
Grevillea alpestris, 42.
Guano, Artificial, 147.
Gunnera scabra, 25.
Gustavia insignis, 23.

H.

Hartford Prolific Grape. 19, 27.
Half Evergreens, 41.
Hardenbergia Makoyana, 26.
" Comptoniana, 38.
Herbemont Grape, 27, 175.
Height of trees, 41.
Hedges, Evergreen, 68.
" in the South, 11, 19, 75.
" Pyrus japonica, honey Locust, 53.
Herapath, Obituary on Mr., 44.
Heat and moisture in forcing, 29.
Heat, High bottom, 188.
Hedychiums, Culture of, 51.
Henfrey, Obituary on Arthur, 187.
Henderson's "Bouquet," No. 5 of, 88.
Herbaceous plants, 138, 168, 172
Hints for January, 1. Feb., 17. March, 34. April, 49. May, 65. June, 81. July, 97. Aug., 113. Sept., 129. Oct., 145. Nov., 162. Dec., 179.
Hilton near Wilmington, 76.
Hibiscus radiatus, 88.
Hibbertia Cunninghamii, 88.
H. N. S. No. 21, 156.
Hot and Green house, Hints for January, 2. Feb., 18. March, 34. April, 50. May, 66. June, 82. July, — Aug. 114. Sept., 130. Oct., 146. Nov., 163. Dec. —
Hotbeds, 29.
" Dr. Uhler's, 43, 55.
" Renewing heat in old, 54.
Horticulture, Influence of, 6.
" Conservative influence of, 56.
" in Tennessee, 148.
" For Ladies, 124.
" At the Farmer's High School of Pa. Amateur, 181.
Hort. Soc's, Brooklyn, 177.
" " Brockhill, Canada, 95.
" " Cincinnati, 16, 32, 48, 64, 80, 96, 111, 160.
" " Frankford Workingmens, 144.
" " Genesee Valley, 64, 144.
" " Hamilton, Canada, 112.
" " Hartford, 144.
" " Hartford, Conn., 80,
" " Illinois, 32.
" " Kentucky, 160.
" " of Morrisania, 32.
" " Massachusetts, 48, 64, 95, 112.
" " Meramec, 96.
" " Mississippi Valley, 128.
" " of Montreal, 64.
" " in Missouri, 64.
" " New York, 177.
" " Orleans, France, 16.
" " Pennsylvania, 16, 32, 47, 64, 80, 95, 111, 127, 143, 176.
" " of Southern Illinois, 128.
" " Susquehanna & Chemung, 157.
" " Toronto, 95.
" " Waukegan, 144.
" " Westchester, (Pa) 127.
" " West Alabama, 27.
" " White Plains, 32.
" " Influence of, 54.
" " Hints for, 146.
" Soc., Notice of the Spring Exhibition of the Cincinnati, 101.
" Books, 4.
" Buildings, Sir Joseph Paxton's, 79.
" Advertisements, 121.
" Exhibition, Kingston, Upper Canada, 144.
Hollyhocks, 28.
Hooker, Visit of Dr., 41.
Honey Locust Hedges, 53.
Hornbeam, the American, 91.
Horse radish, culture of, 180.
House, Orchard, 93.
Hot water, Downward circulation of, 180.
Horticultural progress in the South, 187.
" Society, London, 188.
Horsfield, Obit'y on Thos., 187.
Horticultural Societies, Jan., 16, Feb., 32. March, 47. April, 63. May, 80. June, 95. July, 111. Aug., 128. Sept., 143. Oct., 160. Nov., 176. Dec.—
Hoe, the Drag, 101.
Hoes, New, 166.
Honesty vs Calumny, 115.
Howardia Caracasensis, 123.
Hoo Sung, 124.
Hotela japonica, 135.
Hubbard Squash, 77.
Humboldt, Obituary on Baron Von, 91, 108.
Humboldt, Alexander Von, 103.
Hyacinths, to choose, 14.
Hyacinth Glasses, Tyes', 29.
Hybridizing, 165.

I.

Illairea canarinoides, 42.
Ilex cassine, 77.
Illinois, from, 85.
Impositions, 187.
Immortelles, 8.
Influence of horticulture, 6.
Ingersoll, Residence of Captain H., 7.
Insects, Protection of plants from, 5.
Insects, Destruction of, 12.
Insects, Plants against, 188.
Inga macrophylla, 55.
Inventors, Notice to, 138.
Iowa, Letter from, 98.
Isotoma senecioides, 25.
Isabella Gray, Rose, 59.
Ivy, grown in beds, 76.

J.

Japan Persimmons, 26.
" Maple, 77.
Jasminum grandiflorum, 14.
Jelly, to make Red Currant, 158.
Juanulloa exima, 55.

K.

Kew, Royal Botanic Garden at, 70.
" Gardens, 88.
King Grape, The, 155.

L.

Labels, Tree, 157.
Language of Flowers, 45.
Laurestinus, Bloomings, 60.
Larch, how to make a weeping, 76.
" The weeping, 153.
Landscape Gardening, a treatise on, 58.
Laurenciana rose, 85.
Layers, how to make, 86.
Lardner, Obituary on Dr. Dionysius, 108.
Ladies, Horticulture for, 124.
Lady Down's Seed'g Grape, 134.
Label, a new garden, 168.
Labels, Page's improved, 172.
Leaf blight, 13.
Lettuce, New, 31.
" Green Co's, 120.
Legislative Agricultural Meeting, 48.
Letters, Private, 121.
Lemonia spectabilis, 186.
Lenoir Grape, 173, 186.
Literary Notices, 26.
Linum grandiflorum rubrum, 46.
" pubescens, Sibthorpianum, 151.
Linden's Catalogue, 79.
Lime, Uses of in gardening, 66.
" Rubbish, Hardy Grapes, 185.
Libocedrus and Wellingtonia, 87.
Live Oak, Large, 174.
Lonicera stipulata, 26.
Long Grape, The, 186.
Louisville Gardens, 28.
Locust Roots, Poisonous, 126.
Lobelia Trigonicaulis, 173.
Lupinus Menziesii, 42.
Lysimachia nutans, 74.

M.

Marvel of Peru, 3.
Manchester Botanic Garden, 24.
Manetti Rose Stocks, 37.
Marly Le Roy, 69.
Massachusetts Hort. Soc. 74.
Mail, Seeds by, 90.
Manure, fresh urine as, 86.
Maples, Borers in, 91.
Madeira Grape, Early Green, 109.
Mangoes, Cucumber, 126.
Maupay, Obituary on D., 139.
Magnolia, New, 175,
Merveille des Quatre Saisons Raspberry, 30.
Meyenia erecta, 55.
Meyer, Goethe and, 84.
Meconopsis simplicifolia, 89.
Melon, Mexican Cashaw, 90.
Mesembryanthemum crystallinum, 110.
Mella Azedarach, History of the, 175.
Mignonette for windows, 11.
" 24.
Mice and Rats, to destroy, 13.
" Destroy the, 52.
Microscopists Companion, 74.
Mildew, Lime and Sulphur for, 83.
Milk-pan, Pratt's Patent, 91.
Minomor, A, 107.
Mowing Machines, 13.
Morren, Obituary on Prof., 44.
Moss, Striking cuttings in, 52.
Monotoca elliptica, 88.

Monochætum ensiferum, 173.
Mundie, Obituary on Mr. 75.
Mushroom Spawn, to make, 117.
" How to grow, 117.
Mushrooms, 139.
" Poisonous, 174.
Mustang Grape, The, 168.
Mulberry, Bigert's Everbearing, 157.
Myosotidium nobile, 174.

N.

Native trees, 4.
New Plants,—Jan., 11. Feb., 25. March, 42. April, 55. May, 74. June, 88. July, 109. Aug., 123, Sept., 135. Oct., 151. Nov., 173. Dec., 186.
New Holland Pitcher Plant, 14.
" Grapes, 27.
" Vegetable, 79.
New Fruits,—Jan., — Feb., — March,— April.,— May,— June, 89. July, 40. Aug., 122. Sept., 134. Oct., 154. Nov., 173. Dec., 186.
New York, The Central park in, 98.
Neumann, Obituary on M., 44.
Note little things, 152.
Nursery, Hints for Jan., 1. Feb., 18. March.,— April, 50. May, — June, 81. July, 97. Aug., — Sept.,— Oct.,— Nov., 164. Dec.—
Nursery, Fraser's Lea Bridge, London, 142.
" in Illinois, Largest, 175.
" Fine Illinois, 175.
" Peach and Apple, 171.
Nurseries, List of Periodicals and, 86.
Nurserymen, Our List of, 120.
Nuttall, Obituary on Thomas S. 173.

O.

Oaks. Dr. Kotschy, 88.
Obituary, 11, 44, 61, 75, 90, 108, 139, 173.
Œnothera bistorta Vietchiana, 55.
Œolanthus Livingstonii, 74.
Oil Scrapings, 138.
Okra, Dwarf Prolific, 27.
Old Tree, An, 58.
Orchis floea, 25.
Orchard House, 93.
" " Merits of an, 45.
" " New, 77.
" " and Forcing, 146.
Orchards in Canada, 76.
Our Contributors, 40.
Oregon, 76.
Orange trees, to renovate sickly, 92.
Oranges, Cochin China, 142.
Osage Orange, topiary work, 67.
Ouvirandra Bernieriana, 55.

P.

Paint with singular preservative qualities, 140.
Pampas Grass, 13.
Passiflora Decaisneana, 21.
Paradise Stocks for Apples, 24.
Parthenogenesis, 84.
Paper, A Pennsylvania, 107.
" Our, 118.
Park, Irving, 125.
" Harris, 129.
Palm, 156.
Pavettas, To propagate, 152.
Pavetta Caffra, 186.
Peaches, 3, 71.
" for Kentucky, 28.
" in South Carolina, 141.
" in pots, 149.
Peach houses, 13.
" Chinese, 26.
" Blow Potato, 141.
" Borer, Gas tar for the, 168.
Pear growing in the South, 187.
Pear, Beurre D'Arenberg, 99.
" the Democrat, 8, 157.
" Des Nonnes, or Beurre de Brignais, 173.
" Fondante D'Automne, 104.
" Gen. Toribon, 166.
" The Morgan, 109.
" Muskingum, 155.
" Mather, 155.
" Nabours, 155.
" Schuman, 157.
" trees on Quince stocks, 34.
" Culture, 68.
Pears, varieties of, 13.
" for exhibition, 14.
" " Orchard house, 14.
" " Kentucky, 28.
" Dwarf, 59, 60, 183.
" to get late, 78.
" Sowing, 125.
" Keeping Apples and, 142.
" at Cincinnati, 158.
Peculiarities of the Raspberry, 24.
Peanut, Cultivation of the, 26.
Persimmons, by N. P. Willis, 27.
Pelargonium, The, 39.
Pelargoniums, New, 151.
Perpetual Strawberries, 40.
Pentstemon cordifolius, 16.
Petunia, History of the, 131.
Philadendron erubescens, 25.
Phyllocactus angulliger, 88.
Philadelphia, Things around, 104, 119.
Pices Nordmanniana, 89.
Pie Melon, 8.
Pines from seeds and cuttings, 12.
" New hardy, 79.
Pine " native, 124.
" " weeping white, 156.
Pimelea elegans, 74.
Pinus Sylvestris Spiralis, 90.
Pits, Protecting, 171.
Plants for a dry soil, 13.
" of Amoor region, 79.
" Herbaceous, 138, 168, 172.
" Rosary, &c., Protecting, 171.
" Common names of, 159, 185.
Plants against Insects, 188.
Plant Houses, New method of heating, 134.
" The new lawn, 139.
" Collector, Return of an English, 160.
" Protectors, New, 164.
Plan of a cheap cottage, 21.
Platycodon, 26.
Plectocomia Assamica, 88.
Plocostemma lasianthum, 74.
Plums for Kentucky, 28.
Plum trees, Salt for, 91.
" Richland, 154.
" Knots on the, 157.
Potatoes, second growth of, 14.
" Sweet, 60.
" Improved varieties of, 141.
Potato, Davis' seedling, 141.
" Peach Blow, 141.
" State of Maine, 141.
" Strawberry, 141.
Poinciana Gilliesii, 46, 151.
Poisonous Locust Roots, 126.
Pomological Society's List, American, 56.
Pomegranate, History of the double white, 166.
Poppy, The, 53.
Pots, Porus vs Painted, 82.
Practice vs Theory, 19.
Prairies, Shelter on the, 91.
Preparing green corn for winter, 75.
Primula Stuartii, 74.
Profitable crops to raise, New and, 63.
Propagating Table, 19.
" " 51.
" " Sand for, 61.
" " Beds, fungus in, 89.
Propagate, Pavettas, Draccunas, Begonias, &c., To, 182.
Prunus triloba, 13.
Pruning, Root, 92.
" " Evergreens, 100.
Pteris argyræa, 174.
Publisher's card, 6, 56, 152, 169, 184.
Public Benefactors, 10.
" Garden, The, 20.
Pyrus japonica Hedges, 53.
Pyrularia oleifera, 125.

Q.

Questions and Answers—Jan., 11. Feb., 25. March, 42. April, 60. May, 73. June, 89. July, 107. Aug., 120. Sept., 138. Oct., 151. Nov., 173. Dec., 185.
Quercus fagiformis, or Beech Oak, 62.
Quince Trees, Salt for, 91.

R.

Raisins in California, 44.
Rain water for plants, 77.
Rake, New Garden, 183.
Rambles, Notes made on, 137, 153, 169, 184.
Raspberry, Peculiarities of the, 24.
" Allen, 122.
" Bagley's Everbearing, 173.
" Hornet, 122, 139.
" Merveille des Quatre Saisons, 30.
" or Souchetti, White Transparent, 122.
" Watson's Seedling, 139.
Raspberries, Notes on, 142.
" Rivers' Monthly & Allen, 172.
Rats, 61.
Rebecca Grape, 27, 172.
Rhipsalis sarmentacea, 174.
Rhododendrons, 14.
Rhododendron, azaleoides, crispiflorum, 26.
" calophyllum, 55.
" Kendrickii, 173.
" Moulmeinensis,—74.
" nobile pallidiflorum, 55.
" Smithii, 151.
" Thompsonii, 11.
" Vietchianum, 11.
" Winsorii, 42.
Rhubarb Champagne, 104, 121.
" Wine, 139.
Richland Plum, 2.
Rigidella Flammea, 77.
Ringing and Puddling, new notions. 154.
Rivers' Monthly and Allen Raspberries, 172.
Root grafts, Tying, 27.
" grafting Apples, 67.
" pruning, 92.
Roots of plants, Insects around the, 93.
Roses, Propagating of, 11.
" Superior varieties of, 13.
" New, 80, 93.
" 90.
Rose, Cuttings, 157, 172.
" America, 60, 172.
" George Peabody, 73.
" Isabella Gray, 59.
" of Jericho, The, 83.
" Lawrenciana, 85.
" New yellow, 89.
" Garden, Plan for a, 154.
Rubus nutans, 74.
Rustic adornments, 85, 98, 116.
" " of homes of taste, 13.
" " Thatching &, 131.

S.

Salt as a fertilizer, 21.
Salvia candelabrum, 42.
Sabbatia campestris, 52.
Sater, Obituary on Henry, 75.
Sanseviera cylindrica, 75, 88.
Saponaria atocoides, 186.
Scarlet Geranium, 73.
Science, Dutch encouragement of, 126.
Science, Government aid to, 138.
Scrapings, Oil, 139.
Seeds of Evergreens, 73.
" Germination of, 110.
Seed, To freshen exotic, 46.
" Red Cedar, 60.
" Mountain Ash, 172.
" Trade of Boston, 61.
" Beds, Preparation of, 110.
Selling soils, 14.
Shrubbery, 72.
Shade Tree Association, Union Springs, 96.
Shanking of Grapes, 38.
Slate, Manufacture of, 120.
" Boxes, 124, 183.
Societie De La Haute, Marne, France, 64.
" Royal De flore, of Bruxelles, The, 177.
Soil, Improvement of the, 100.
Soja hispida, or Oleaginous Pea, 110.
Sonerila margaritacea, 88.
Southern trees and gardens, 77.
Spiræa grandiflora, 14.
Spiræas, 73.
Sphagnum, Striking cuttings in, 13.
Spathodea campanulata, 55, 75, 110.
Span-roofed houses, and width of laps, Aspect of, 90.
Spruce, New weeping Norway, 135.
State of Maine Potato, 141.
Stephanophysum Baikiei, 110.
Stocks for roses, 14.
St. Louis Fair, Profit of the, 28.
Strangeria paradoxa, 151.
Strawberries, Perpetual, 40, 158.
" Native, 77.
" &c., 90, 106, 123.
" Forcing, 92.
" Selected, 157.
" 167.
" In California, 174.
" Cutting off the leaf of, 175.
Starting seeds early, 44.
Strobilanthus sabiniana, 74.
Summer managem't of vine, 72.
Summer, Canvas shades for, 133.
Surface, Manuring, 51.
Strawberry, Albany seedling, 116, 131, 156.
" A large, 174.
" Athlete, 155.
" Another promising seedling, 156.
" Beds, 130.
" Cutter, 173.
" Delices D'Automne, 83, 107, 172.
" Downer's prolific seedling, 107.
" Entire-leaved, 156.
" Felton's improved Albany seedling, 107.
" The Fillmore, 105, 149.
" Germantown seedling, 121, 172.
" Lady finger, 107.
" Notes on the, 115.
" New English, 89, 109.
" Oscar, new " 155.
" Peabody's seed'g, 107.
" Potato, 141.
" Plants, 165.
Subsoil Ground, 147.
Susan's Spice Apple, 186.
Sweet Potatoes, to make, 45.
Swainsonia lessertiæfolia, 25.
Syagrus cocoides, 25.

T.

Tachladenus carinatus, 75, 88.
Talk under the Porch, 146, 182.
Taxodium sempervirens, New use for, 175.
Taylor Grape, 155.
Tea in South Carolina, 140.
" Rose, extraordinary growth of a, 183.
Tennessee Grape, Black, 173.
Tests of merit, 13.
Texas, Letter from, 82.
Thatch, 35.
Thatching, 67.
Thomasia stipulacea, 74.
Thomas, Obituary on David, 187.
Thuja aurea, 45.
Thuja gigantea, 89.
Thunbergia Harrisii, 11.
" laurifolia, 11, 55.
Thyrsacanthus rutilans, 80.
Tobacco, Substitute for, 79.
Tomato plants, 76.
" &c., Experiments with the, 147.
" The culture of the, 101, 131.
Tomatoes, &c., Protecting from the worm, 84.
" Disease in, 121.
" Green, 124.
" a la mode, 134.
Trees, Protecting from Mice, 20.
" Two remarkable, 46.
" In Paris, Transplanting large, 117.
" Winter protect'n for, 132.
" A new use for old, 133.
" Transplanting large, 136, 181.
" Shading the trunks of Fruit, 140.
" Premium for Timber, 158.
" Protecting transplanted, 175.
Torenia pulcherrima, 55.
Tradescantia discolor, 55.
Tree boxes, Slate for, 101.
" Seed, Preserving and planting, 188.
Training, an anecdote, 40.
Transplanting, The philosophy of, 102.
Trenching, 158.
" Ground, Is it beneficial? 50.
Tritoma Uvaria, 13.
Tropics, The drouth in the, 91.
Tropœolum Lobbi, 110.
Turnip fly, Cures for the, 51.
" Crops, Reasons for large, 175.
Tydæa amabilis, 11.

U.

Uroskinnera spectabili 42.

V

Vegetable Garden, Hints for Jan., 1. Feb., 17. March, 33. April, 49. May, 66. June, 81. July, 97. Aug., 114. Sept., 129. Oct., 145. Nov., 163. Dec.,
Vegetable forcing houses, 3.
Vegetation, Moonlight on, 92.
" Artificial light on, 175.
" in Greece, something about, 125.
" in Greece, 175.
Verbena. History of the, 38, 54.
" Roots, Insects on, 172.
Verbascum multiflorum, 88.
Vermifuge, 93.
Vine borders, regulating heat of, 5.
" Grafting the, 24.
" Forcing the, 25.
" Growing in Alabama, 37.
" Summer management of, 72.
Vines from eyes, 39.
Vintage in Missouri, 44.
Vinegar, a good recipe, 175.
Vitality of seed, 14.
Viola pedunculata, 55.
Virginia Creeper, The, 2.
Violets in winter, with cultural remarks, 92.
Vriesia psittacina, 151.

W.

Wax tree, the new Japan, 187.
Waltonian Plant Case, 9.
Watson, Obituary on Dr. G., 11.
Washington Territory, Fruits in, 91.
Watering tube, New, 141.
Walks, Edging for, 59.
Weeping Holly, 13.
" White Pine, 22.
Weather, The, 75.
" in Baltimore, 76.
" Crops, &c., 86.
" June, 103.
Wellingtonia, 91.
" Libocedrus and, 87.
Wells, Obituary on Joseph, 139.
Window gardening, 34.
Wine making in Connecticut, 38.
" " " Mass., 174.
" Rhubarb, 139.
Wounds, Cure for, 110.
Work, Dr. Vogel's, 162.

END OF VOLUME I.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. JANUARY 1, 1859. VOL. I.---NO. 1.

CALENDAR.

First Month, January, 1859, 31 Days.

Moon's Phases		Boston.		Philad'a.		Baltim're		Charl't'n	
	d	h m		h m		h m		h m	
New.	4	0.42 mor.		0.25 mor.		0.19 mor.		0. 7 mor.	
First Quarter.	12	2.39 mor.		2.22 mor.		2.16 mor.		2. 4 mor.	
Full.	18	7. 5 eve.		6.48 eve.		6.42 eve.		6.30 eve.	
Last Quarter.	25	4. 1 eve.		3.44 eve.		3.38 eve.		3.26 eve.	
Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	4	7.30	4.40	7.22	4.48	7.19	4.52	7.3	5. 8
	12	7.28	4.49	7.21	4.56	7.18	4.59	7.2	5.15
	18	7.24	4.56	7.19	5. 3	7.15	5. 6	7.1	5.19
	25	7.19	5.04	7.14	5.11	7.11	5.13	7.0	5.25

This Calendar will answer for the sun for any place in the same latitude

Hints for January.

FLOWER GARDEN.

At this season of the year we can give few "hints" beyond what we have already given in our Specimen Number, and which we presume most of our subscribers have read.

Any alterations or improvements that may be contemplated at the return of spring, should now be well weighed before the busy season commences. The importance of having all things well studied in advance, and of getting every thing ready to hand, that no time may be lost when the time comes to act, need scarcely be urged.

Hyacinths, or other hardy bulbous roots that may not have yet been planted, may still be put in where the ground continues open. The beds of all such bulbs should be slightly protected with manure or litter, and be carefully watched for mice and vermin, which are likely to avail themselves of the shelter and feed on the roots.

Evergreens set out last fall in windy or exposed situations, will be benefited by a shelter of cedar branches, corn-stalks, or mats, set against them.—Whether hardy or tender, all will be benefited thereby.

Lawns that are impoverished by several seasons' mowings, will be improved by a good top dressing.—This may be applied any time after the leaves are gathered up, and before the snow falls. Soot, wood-ashes, guano, or any prepared manure, is best for this purpose. Barnyard manure is objectionable as generally containing many seeds of weeds.

Flowers for bedding should be pretty much decided on now, as to what are to be principally planted, and how arranged, as the plants can, in many cases, be propagated through the winter. It is found here that stove-plants, on the average, make better bedding plants than the green-house plants usually employed in England. Some Begonias, parviflora, for instance, do well. Browallia elata makes a good blue; Oxalis floribunda, pink; Ruellia formosa, scarlet; Zauchneria Californica is hardy, but makes an admirable scarlet bedder, as also does Delphinium formosum, blue; Tritoma uvaria, Canna Warcewiczii, and Phygelius capensis, are admirable border plants, but do not commence to bloom till August.—Many of the stove climbers make beautiful climbing vines in the open border. Physianthus albens, Stephanotus floribundus, Mandevillea suaveolens, Manettia glabra, and Passiflora cerulea, all grow well and flower freely in the fall.

FRUIT GARDEN.

Although much stress was laid on the advantage of draining and trenching in our Specimen Number, it will bear reiteration, that this is the basis—the very subsoil of success. At this season of the year it is generally a momentuous question with the generously disposed near all large cities, What shall be done with the unemployed? When you are called upon with a subscription-list in behalf of the unemployed, and are tempted to set your name down as a donor, don't do it. Reserve your charity for the sick and the feeble. To the strong man say, "Come with me to my garden, and trench me an acre two feet deep, for which I will pay $50." You will get it done twenty inches at least, your laborer will earn a dollar a day and thank you for preserving at the same time his self-respect, and you will get your fifty dollars back again the next season, and that, too, with good interest.

If half the money spent on giving employment to our poor last winter, by digging holes in the roads one day and filling them up the next, or in simple charity, had been used for the permanent improvement of the soil in this way, the productive capacity of such soil would have been doubled, and lasting good realized to the community.

When ground is trenched, it should be left during the winter in high ridges, so that the frost can operate on it, and in the spring it will be found very light, mellow, and well pulverized. If your ground is stiff and clayey, it can now be improved by spreading sand or coal-ashes on it, and digging it in. Manure can now also be hauled out and left in heaps, ready for spreading when spring opens. And every opportunity which open weather offers should be improved by getting ground dug.

VEGETABLE GARDEN.

As in the Fruit and Flower Garden, so in this department very little can be said of this month more than has already been in the Specimen Number. The preparing of manure ready for spring operations, at every favorable opportunity, should not be forgotten. Next to draining and subsoiling, nothing is of more importance than this.

Much has been said of guano, phosphates, &c.,—all very well in certain cases,—but nothing is so well adapted to the permanent improvement of soil, as manure composed in the main of decomposing vegetable matter. It is always light and porous, thereby allowing air to circulate freely through the soil; it absorbs moisture, which in dry weather is given off to the drier soil slowly, to the advantage of the plants near by,—and, what is not a small point in its favor, it aids in giving a dark black color to the soil, which renders it so much warmer in early spring; and, by so much, better adapted to the early raising of vegetables. It is also a good rule to have the manure well decomposed before using it. There are a few things which do not object to fresh manure, and a still fewer number that might, perhaps, prefer it; but the major part do best in thoroughly fermented material.—Leaves, litter, and refuse vegetable matter of all kinds, should be got together at every favorable opportunity, and well mixed in with manure.

Cabbages and lettuces in frames for protection through the winter, should have all the air possible whenever the thermometer is above the freezing point; when it is below, they need not be uncovered. They require no light when there is not heat enough to make them grow. Examine for mice occasionally. If noticed, soak peas in water till they swell, then roll in arsenic, and bury in the soil. They prefer these to lettuce when so prepared.

NURSERY.

Those who have commenced to heat, will be busy propagating Grapes by eyes, and Rhododendrons, Camellias and other plants, by grafting about the end of the month. The great secret of propagating grapes from eyes successfully, is not to keep them too warm at first after being cut ready for propagating; indeed, if the eyes are cut ready, and put in a heap or in a pot afterwards, and set for a week under the damp stage of a cool greenhouse, before being put in the propagating-boxes, all the better. The harder the kind is to root from eyes, the longer it should be kept out of the soil,—say two weeks for a "hard case." The most intractable yield under this treatment, and their eyes root readily. It is a good plan to keep all cuttings rather cool for some days after potting, increasing the heat with the length of time they may have been in. Atmospheric humidity is very important for all kinds of cuttings, provided there is heat with it. If the air is so dry that cuttings have to be repeatedly watered to keep them from wilting, they will soon rot. In the open air, where there is little snow, and and the winds cold and severe, any fall-planted stock or stuff laid in, should have a little litter placed over them. Where a supply of roots can be secured, apples may be root-grafted, as well as glycines, maples, roses, and many kinds of scarce plants which it is desirable to increase rapidly. In root-grafting it is best to use some composition to exclude damp, though many do not employ it. Cuttings of most kinds of ornamental shrubs may be made in the winter, and buried in the soil out of doors, ready to be set out when the spring weather arrives.

FORCING.

Where *Lettuce* is grown with a slight heat, care must be taken to give it plenty of light, or it will "draw," as gardeners term it, and be nearly worthless. The rule with all forced things is, that the warmer they are kept, the more light they should receive. *Radishes*, as well as Lettuce and Cauliflower, must not have a higher temperature than 55 deg. at this season,—too much heat makes them run to seed in these dark days.

Grapes started as directed last month for the earliest crop, will now be starting into leaf, when the temperature may be raised to 60 or 65 deg. Those trained permanently to rafters will require a slightly different mode of treatment from those raised in pots. In pot-vines the object is to get all the fruit possible from the vine; on the permanent vines we have also to look to the preparing of the plant for the next

year's crop. A vine that has been properly managed, should have the bearing shoots at the bottom of the cane produce nearly as fine bunches as those at the top. If the vine pushes strongly at the top and weakly below, very little top-growth should be allowed, and as much as possible below,—the more leaves and shoots allowed at the lower parts of a cane, the stronger it will eventually become. Every care should be taken to preserve the health of the leaves, —on that much of success depends. The syringe should be often used; it discourages insects, and promotes cleanliness; and care should be had that no gas escapes from the flues. Red spider is likely to prove a formidable enemy, and should be well watched. Thrip does not often prove troublesome in early houses, but when it does, is easily destroyed by three successive light doses of tobacco-smoke. As the grapes show flower, they may be stopped two or three buds above the bunch. Those on the rafters may be thinned according to the strength of the vine. Too great a crop often injures the prospects of the next season. In pot vines every bunch may be left on that the plant is capable of bringing to perfection, as the future injury of the vine is of no great consequence. As pot vines grow, they should be treated liberally to manure water. Well-decayed cow-dung, steeped in rain-water, makes the best liquid for the grape vine. It is not customary to let any shoots grow from pot-vines, but those bearing fruit,—the whole energy of the plant is driven into the fruit, though, as before observed, every care should be taken to preserve the *main* leaves. *The leaves from the laterals are of very little value.*

Peaches, *Nectarines* and *Apricots*, started in a low temperature last month, will now be swelling their buds, and should be kept well syringed, and the temperature slightly increased as the leaves unfold.

Strawberries started early, ought now to be in flower, and when they are this much forward, another set may be introduced to succeed them as they ripen. They must be kept close to the glass, and get plenty of manure-water. They are very easy to force, the attacks of the red spider being the chief obstacle. Frequent syringing with sulphur-water is the best remedy.—Beans may be forced in the same house with the Strawberries, and require about the same treatment, having only the hottest part of the house to themselves.

Cucumbers, where they are required early, may be started at the end of the month;—they do best in a dung-frame. The temperature must be kept above 60 deg. for them to do well. The best soil for Cucumbers is a well-decayed turfy loam, mixed with about a third of decayed wood from the bottom of an old wood-pile. In a very cold climate it is very hard to maintain a proper heat with the common dung-pit without much labor, and perhaps hardly worth the trouble so early. They can be raised, though not quite so well, in the early grape or other fruit houses.

HOT AND GREENHOUSE.

Temperature at this season about 55 or 65 deg. for the Hothouse. It is better, however, not to keep so high a temperature than to have to give much side air to either this or the Greenhouse. What benefit is gained by such free admission of air, is more than lost by the sudden escape of so large a quantity of moist air, as that course of practice entails. Confined air in glass houses is full of moisture, and few persons have any idea how very different it is in this respect after a sudden draught of side air has been admitted through. These sudden changes from moist to dry in the condition of the atmosphere of plant houses, is one of the chief causes of mildew and many other plant diseases. Every one has noticed how well plants often seem to thrive in the green slimy pots in the houses of some slovenly or short-funded nurseryman, and go away mostly with the conviction that plants do best in dirty pots. But it is the moist atmosphere —regularly and unchangeably moist—which favors the slime, that the plants desire, and all this may be obtained without a total neglect of cleanliness. Top air may be freely given in the hothouse with great benefit, as the plants are now beginning to grow vigorously, and flower freely.

In the greenhouse, air may be given in fine weather; but if the temperature is not allowed to go much above 45 deg., much will not be required. The stereotyped advice to give air freely on all occasions when not actually freezing, is about on a par with the absurd practice that lays the foundation of consumption in a child, by turning it out almost naked in frosty weather to render it hardy. Many strike their *Fuchsias* now, from which they desire to make very fine specimen plants. All kinds of plants that are required for spring or summer blooming, should be propagated whenever the time permits. All growing plants, as Calceolarias, Cinerarias, Chinese Primrose, Geraniums, and so on, should be potted as often as the pots become filled with roots. Plants which have a growing season, and one of rest, as Rhododendrons, Azaleas, Camellias, &c., should be potted if they require it, just before they commence to grow, which is usually about the end of this month. In potting, a well-drained pot is of great importance. The pots should be near one-fourth filled with old potsherds, broken small, and moss placed over to keep out the soil.

Windows and Frames.

The dry air of sitting-rooms is the great obstacle to the perfection of window plants. The plants should be sprinkled or syringed with water as often as practicable, and the leaves washed as often as any insects or dust appear on them. In warm rooms, they should be kept in the coolest parts, and as near the light as possible. For hanging plants there is now an increasing taste, as they afford so much scope for arranging the forms, and for beautifying the windows. Linaria Cymbalaria or the Kenilworth ivy, variegated spider wort (Tradescantia variegata), money wort (Lysimachia nummularia), the creeping saxifrage (Saxifraga sarmentosa), and common Ivy are amongst the most useful of commoner things. For those who are successful with choicer things, there is nothing prettier than the New Holland Kennedyia Marryattæ, red; or K. monophylla, blue.

Communications.

THE RICHLAND PLUM.

We have often been asked for an account of this Plum, and beyond the fact, that we knew it to be a very hardy and vigorous kind, and usually bearing an abundant crop of pretty fine fruit, we knew nothing further of its history. Whenever speaking with a resident of Bucks County about plums, the invariable answer has been—

"The Richland Plum is the only one that bears freely with us. All the others get destroyed by the curculio."

We have an idea, that rather than not fulfil its destiny by depositing its larvæ to preserve its race somewhere, the curculio would attack the Richland, if no other were grown. But our friends won't have it so. Supposing our friend, J. G. Youngken, might know something of its history, we applied to him, and have been favored with his answer:

"The Richland Plum originated on the farm of the late Randall Elden, in Richland Township, Bucks County, forty years ago or more, near an old spring-house on the property. The tree is very hardy and vigorous, and a most abundant bearer. The fruit has somewhat the character of the old Damson Plum, and is, doubtless, derived from it. It is a medium-sized fruit, of an oblong shape, green on one side, and on the other purple, with numerous red dots. The quality of the fruit is not first-rate, but 'very good.' We have all the best known and most popular kinds of plums, and all suffer severely from the curculio,—but the Richland never. It makes no difference whether other kinds are growing near it or not. Josiah G. Youngken.

Richlandtown, Bucks Co., Pa."

LETTER FROM GEORGIA.

Macon, Georgia.

Dear Sir:

Your favor is received, and I shall be very much pleased to do any thing I can for you in this section of the country. I shall not probably be able to be so useful to you as you expect; for with our hot climate and my regular duties, I have little time for correspondence.

We have to contend with a climate very hard on Horticulture in the summer season. The thermometer is frequently 110 deg., and the soil so hot, that a person with thin shoes on cannot stand still. With your love of trees, I am sure you would be delighted to spend a few days down here, if only to see how gloriously some that are rare with you grow in their native places. *Sterculia platanifolia*, for instance, that I never saw in your neighborhood, is a beautiful tree in the South. *Pinkneya pubens* is a beautiful thing. It grows about two hundred miles south of this, on the margins of wet swamps, amongst *Azaleas* and *Andromedas;* it grows as a spreading bush, about fifteen or twenty feet high when in perfection. *Halesia diptera* is another beautiful object. It grows about seventy-five miles from here, but is rather scarce. It is found on shady and very rich borders of streams, in a strong and rich muddy clay. It attains a height of from twenty-five to thirty feet, more like a tree than *H. tetraptera*, with large, broad oval leaves, and a much larger and more pure white flower than *H. tetraptera*. *Gordonia* is growing on the Altamaha River, about one hundred miles below, but very scarce.

Allow me, however, to draw your attention to a few others of our indigenous plants, as, *Erythrina herbacea; Schrankia uncinata*, sensitive like *Mimosa pudica*, perennial, with a very strong root, which can be easily protected with you in winter, as the top dies off. The same is the case with *Passiflora incarnata*, my most troublesome weed. *Hypericum amœnum vel aureum* is also to be met with,—a hardy, woody shrub, about two feet high, and a most beautiful yellow flower, I think the finest Hypericum.—Besides these, I am in the possession of a most beautiful little native flower, only, as far as I know, found on one sandy place in Georgia, nowhere described, and in the possession of no gardener. It is undoubtedly a *Polygonum*, with large clusters of small white flowers, and blooming from June till frost. It resembles an *Erica*, between Gracilis and Bowiana, and is the most beautiful thing for bouquets you ever beheld. It is perennial, with a remarkable foliage, like that of *Mesembryanthemum auratinum*, evergreen here, and throwing up plenty of flower-stems two feet high. In fact, I must consider it one of the greatest acquisitions in Floriculture. I have named it *Polygonum teretifolium*.

Horticulture here is very different from that science with you, and the best English gardener will certainly make a complete failure here at first. There was a time when I thought that I knew many things. That time has passed, thanks to God! I do not know any thing now,—a complete "Know-Nothing," —but I am now beginning to learn.

THE VIRGINIA CREEPER,

Or, *Ampelopsis hederacea*, and by some called the *Five-leaved ivy*, is one of our most common wild plants, and is very useful for planting against dwellings and out-houses. It adheres most tenaciously to either wood, stone, or a plastered wall, and although not evergreen like the ivy, yet its beautiful fresh green leaves during the summer, which turn to a light crimson in the fall, render it highly ornamental. Its appearance after it drops its leaves in the winter, so closely resembles the "Poison vine," or *Rhus toxicodendron*, that it deters many from transplanting it; but it may be readily distinguished by making an incision with a knife, and observing the color of the wood. The wood of the five-leaved ivy is of a *yellowish green color*, and the three-leaved or poisonous variety is *white*. Let me recommend your readers to plant it against all their out-houses, as it imparts a grace to an otherwise unsightly object.

Yours, Marilandica.

THE DELAWARE GRAPE.

by N. Longworth, Esq., Cincinnati, Ohio.

Editor of the Gardener's Monthly:

I cannot believe the Delaware a foreign Grape, for it is more hardy than the Catawba and Isabella. I have tested most of the European wine Grapes, and have never found one that will stand the winters in this latitude. I know of but one reason for believing it a foreign Grape. I have never seen a foreign vine that was not of more vigorous growth than it is here. If it should prove to make a good wine, from its delicate growth here, I should plant the rows only three feet apart, and the plants about two feet apart in the rows, as many are planted in Europe. For our best wine Grapes, we must look to our best Fox Grapes, of which a thousand of different qualities can be found. And by raising from the seed, we may raise some of great value. The Catawba belongs to the Fox family, and would be of greater value if it always had a sufficient Fox aroma and flavor. This fall I had five kinds of Fox grapes sent me from different States. The berries of all, larger than any foreign Grapes, raised under glass; and all of them with a thinner skin and softer pulp than I have ever seen in any Fox Grape, except the Catawba.

Most, if not all, of the common Fox Grapes drop from the bunches as they ripen, and yield but little wurt. Where this is the case, they are of no value. I also received from Tennessee some bunches of a native Grape, resembling the Herbemont, and I deem superior to it; the bunch much larger than the Delaware, and berry larger, and, as far as I could judge, (where the bunches had been picked five weeks from the vine,) I believe it will prove of greater value than the Delaware. It was found on the Cumberland Mountain. Some of the bunches measured about seven inches in length, and were compact. I shall plant many thousand Grape seed of our best native Grapes this fall. I have had seedlings to bear fruit the third year. This gives encouragement, even to old persons, to plant seed. It will be our own fault if we do not, by collecting our best native Grapes and planting their seed, soon surpass the best wine and table Grapes of Europe. Common sense taught me this more than forty years since, as our country is covered with thousands of varieties of native Grape, where a single native vine is seldom seen in Europe.

N. Longworth.

[Mr. Longworth's communication will be read with much interest. Our own opinion, founded only on the botanical characters of the plant, has always been that the Delaware Grape is of undoubted native origin; but so many of our chief pomologists hold a contrary opinion from other reasons, that we are anxious to see its origin clearly traced, and hope any of our friends in possession of facts will forward them for the common benefit.—Ed.]

PEACHES.

by A. P., Baltimore, Md.

The failure of Peaches on my trees this year was not owing to unfavorable weather during their blossoming or later, but solely to the mild weather in January and frost in February and March. I examined the branches on which the fruit rotted, and found the sap-vessels bursted, and the epidermis black along the branch where exposed to the sun, also cracks in the outer bark, from which the gum oozed only.—From this I can only infer that the trees were full of sap when frost struck them, and wherever it thawed suddenly, destroyed the sap-vessels, which, when their full activity was required to mature the fruit, were inadequate to furnish a supply of sufficient quantity and quality. Trees and branches which bore well and free from rot, I found also free from the injury here mentioned. A. P.

[It is well worthy of inquiry whether more of the diseases of Peach trees are not to be attributed to severe winters, than we generally suppose. It is an ascertained fact that the wood of a Peach tree is often killed, while the bark will get through the winter uninjured. Such trees will live, and make a new layer of wood over the injured part, but are never healthy afterwards. We have observed this long ago, but we are not aware that much attention has been given to the fact. Col. Hodge, of Buffalo, we have some indistinct recollection, wrote some time ago on the subject, but remember nothing further from any other party.—Ed.]

GARDEN DECORATIONS.

By D.

I send you a few more designs for rustic decorations, taken from an elegant work recently published in London, entitled "Sketches of Rustic Work," by T. J. Ricauti, Architect.

Fig. 1.

Fig. 1 is a Flower-stand or Basket, supported on four pillars or posts.

Fig. 2.

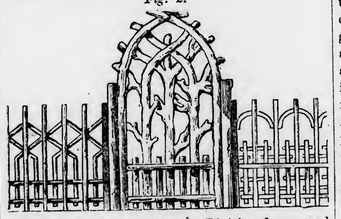


Fig. 2 includes two designs for Division-fences, and a gateway for the pleasure-ground.

Fig. 3.

Fig. 3 is a remarkably tasteful design for a Garden Seat or Summer-house in the Gothic style. The roof should be thatched to give the proper effect.

Yours respectfully, D.

THE MARVEL OF PERU.

Mr. Editor:

Your correspondent "Well-wisher," in his article on the Marvel of Peru, as the Friends say, "speaks my mind" exactly. As an encouragement for him and others to persevere in its cultivation, I will state that *Le Bon Jardiniere* mentions the fact that the root of one plant attained a weight of 45 kilogrammes, or over 100 pounds averdupois! The French call it the *Belle de Nuit*, or the Belle of the Night.

Yours respectfully, J. McR.

CULTURE OF THE CYCLAMEN.

by a working gardener.

Dear Sir:

I received the Specimen Number of your paper, and was right glad to find that you had started a gardener's magazine. I shall be very glad to send you a line occasionally, you may be sure, though I cannot tell you much about novelties here. We have some very neatly kept places about here, but very little in the way of fine gardening, though there is, I think, a taste growing fast for it. Our greenhouse is, I think, the only one ever seen about here, and that is small, but gives me much pleasure. I do not think I could stay here at all but for it, after being amongst so many fine things in your neighborhood; but the place is, in other respects, comfortable, and, on the whole, I like it pretty well. I have many things that you would, perhaps, call old, that I am sure you would envy if you saw, old as they are. I have, for instance, some half a dozen Cyclamens, just out of flower, which I would not exchange, I think, for your best air plants. It strikes me that you could not recommend any thing better for the thousands who love flowers that I suppose will take your paper, and yet have no greenhouse. The kind I grow—*C. Europæum*, called also, I think, *C. hederæfolium*, and *C. Autumnale*—is very nearly hardy, and so easily grown, that you cannot well kill it You may give it too much water, or give it none, live it well. Then it will flower in the shade or in the sun; it is not at all particular; and keep it where you will, it is always curious and beautiful. I usually treat mine in this way:—As soon as the plants have done flowering, I set them in any shady place, and give them less water, and decrease the quantity till about April or May they get none at all, and as soon as the leaves dry away, I set the pot under a shelf or in a shed, or any place where they will be dryish, but not too hot, so as to make the bulb shrivel. About August, or as soon as the bulb seems to show signs of pushing, I take it out and replant in fresh soil. I find coarse turfy loam, with a small portion of coarse manure to suit it very well. This is firmly pressed in the pot, and the bulb set hard on the surface and well watered. It soon comes into bloom, and in September and October I would proudly say, "Beat it if you can." If you have no greenhouse,—nothing but a single window,—you had better have a Cyclamen before any thing,—at least, this is my idea. I used to be very successful in other places with other kinds of Cyclamen, such as the Persian and the Round-leaved, and with them could have some kind or other in flower most of the year. I wish I had them again.

Any thing I think I am good at growing I will send you an account of as I get time, and I want you, in turn, to think of us. We are more of farmers here than of gardeners; that is, though flowers and fruits are prized, we have only the commoner things. If you continue as you have begun, as you say plain and practical, we shall have no cause to complain.

Leesville, October 25th, 1858.

[Our friend is right. The Cyclamen ought to be in every window. Who will be the first florist to raise a stock for market? for there it is the million get their flowers. It can be raised from seed as easy as a pansy, or, as the young ladies will say, "Johnny Jump-up."—Ed.]

CHEAP VEGETABLE FORCING HOUSES.

by schuylkill.

Dear Sir:—

Since I wrote a description for your "Specimen Number," of a cheap frame or pit I had built for flowers, a vegetable-grower from the "Neck," who has had great experience in growing vegetables for market, paid me a visit, and after examining my pit carefully, said that as soon as he could possibly spare the time and the means, he intended to put up one just like it, as he was satisfied that he could force Salad, Radishes, &c., much more easily and cheaply by fire-heat than with an ordinary hotbed, and ended by saying that if the house was on his place, that he could afford to pay me, for a single year's use of it, as much as it cost altogether, and then make money. On my asking

him how he could afford to do so, he said that he could raise more than one head of Lettuce under each pane of 8x10 glass, and that during the month of January he could easily get 18 cents a-piece for them; and as they come off, he could plant Radishes, which also pay well, and end by setting it out with Early York Cabbage, and perhaps Tomato plants, which also command a good price. My frame has 1384 panes of 8x10 glass in it, and with one Salad plant to a pane, would, at the rate of 18 cents, produce just $250, and the other crops would about pay the expenses. My frame cost about $125. SCHUYLKILL.

[Our opinion is, that the time will soon come when forcing vegetables in houses built for the purpose, on the same principle as our correspondent's plant-house, will be one of the most profitable and best businesses near many of our large towns; and no garden of any pretension to excellence will be without them. On the old systems, a hundred dollars go but a little way towards the commonest cucumber or cauliflower frame, which most gardeners possess. As a rule, vegetables do not succeed so well forced by fire-heat as by that furnished through fermenting materials. Where these can be obtained, they might be used in connection with fire-heat, at a small additional cost at the building of the house, as a pit for containing the material would have to be added. Still the first cost of such a house would be less than our correspondent's in one respect, as the plants requiring to be very near the glass, there would be a saving in height. If such vegetable-forcing could be gone into extensively, it would pay to have eight or ten houses all heated by hot-water pipes from one boiler set in the centre of the lot. Hot water does not pay on a small scale. Dr. Uhler has given us the idea of cheap fermenting materials, and Schuylkill cheap houses; who will start us on cheap boilers?—ED.]

CULTURE OF EPIPHYLLUMS.

BY RICHARD FETTERS, CAMDEN, N.J.

I ATTRIBUTE my success in the growth of my *Epiphyllum truncatums* pretty much to the soil I employ. This is composed of a turfy loam, from a sandy common, and horse-droppings *fresh from the stables*. I use two parts of loam to one part of the horse-droppings, thoroughly mixed and pressed firm into the pots.

I generally re-pot my Epiphyllums early in spring; but if at any part of the year any appear unhealthy, I take them out of the soil, wash the roots, and re-pot at once with fresh earth.

I generally keep them under glass altogether, summer and winter. I do not, however, keep them very warm at any time,—employing but a cool greenhouse for their culture.

[MR. FETTERS' reputation as a grower of these plants is well known. The employment of *fresh* horse-droppings in plant culture will be novel to many of our cultivators, who, with ourselves, will feel under obligation to our friend for his information.—ED.]

OUR NATIVE TREES.

BY H., WEST CHESTER, PA.

DOWNING happily said "A man born on the banks of one of the noblest and most fruitful rivers in America, and whose best days have been spent in gardens and orchards, may perhaps be pardoned for talking about fruit trees;" and by virtue of the same logic, one who claims to be a native of a county memorable as being the pioneer in botanical science, and who has always been an ardent admirer of our forest trees, may at least cherish a desire to be heard.

In the following list I wish to direct the attention of planters to a few of our most beautiful, but neglected, forest-trees, feeling confident they will assuredly repay the trouble and expense of moving; but in the present age, when every horticultural periodical teems with the praises of novelties from abroad; with glowing descriptions of the magnificent Yews, the graceful Deodars, the stately Firs, or the grand old Cedars of Lebanon; a novice is certain to catch the *mania*, and consequently plant them all, to meet with disappointment in the end. We must, therefore, very naturally direct our attention to those deserving forest trees that have been as household words with us from infancy, which, in the enthusiastic thirst for novelty, we have overlooked; not, perhaps, with disrespect, but with that everlasting trait of Yankee character—a desire to possess something new.

Our native Oaks, which are among the most majestic in the world, have always occupied the foremost ranks in the list of American trees, and a selection from this genus could not but please the most fastidious; as the sublime proportions of the *alba*, the brilliant Autumn foliage of the *coccinea*, the thick glossy leaves of the *nigra*, or pyramidal growth of the *palustris*, complete all that one could wish for in a collection of trees.

The Tulip-tree, (Liriodendron tulipifera,) notwithstanding its clean, smooth bark, beautiful foliage, and handsome flowers, is very seldom used for ornamental purposes in this country; whilst, on the contrary, it forms a very prominent feature in all European parks and pleasure grounds, consequently commanding a high price. It is a tree that should be justly appreciated by all that have ample space to allow its full development as a single specimen on a lawn; and in such situations its manifold beauties become apparent to every one.

The common white flowering Dogwood (*Cornus Florida*) is another pretty tree, that is usually admired in its native localities, but seldom, if ever, cultivated and does certainly deserve more attention than is usually bestowed on it. A beautiful specimen close to my window,—and which, by the way, is one of the favorites in my collection,—waves its few last remnants of richly-colored leaves, apparently, in token of assent to the encomium I am penning on its merits.

A large portion of the Magnolia family has been assiduously cultivated ever since the days of Bartram and Marshall; but, at the same time, losing sight of one as desirable a species as belongs to that class. I allude to the *glauca*, or Sweet-scented Magnolia; and why it should be left "to *waste its sweetness on the desert air*," is a profound mystery to me; for certainly a tree possessing so many excellencies as this, should be entitled to more than passing admiration. At the commencement of summer the flowers generally expand, filling the air with the most delicious fragrance for several weeks in succession, which give place to a complete coat of shining, scarlet berries, suspended by silken threads from the numerous red cones.

I might write on, and fill sheet after sheet, describing the many beautiful trees with which Nature has so bounteously decked our hillsides and vallies; but as such is not my intention at the present time, I will finish these hasty notes by advocating the culture of two species that are found growing plentifully in our very midst, although utterly neglected in the ornamental departments of our grounds; they are the Sour Gum (*Nyssa multiflora*) and the Sweet Gum (*Liquidambar styraciflua*).

The former is usually found growing in low and rather moist soils, but will succeed on high situations, and if successfully transplanted, becomes one of the most splendid deciduous trees. The leaves are a dark, shining green, almost resembling an evergreen, until changed by the frosts of autumn, when they become a most gorgeous crimson.

It is worthy of remark, that the parasitic Mistletoe is found growing generally on this tree.

In regard to the Sweet Gum for lawn-planting, I may safely assert, that it has no superior. This species is a tree of the largest size and unexceptionable shape. The leaves are mostly five-lobed, deep and pointed, and the bark partially covered with corky excrescences, which creates quite an unique appearance.

Like the foregoing, the Sweet Gum also contributes its rich colors in decorating the autumnal landscape.

And now, in conclusion, I wish to impress upon the minds of all lovers of trees, the necessity of establishing Arboretums in different sections of our country, for the purpose of testing every known species and *marked* variety that will stand our winters without protection; for we can never perfectly arrive at a just conclusion or proper appreciation of our own forest trees, until such a course shall be pursued. It has long been a subject for the building of *air-castles* with me; and, as a start in the right direction has been made in St. Louis, I trust the "good time coming" will doubtless arrive here before long; and my brightest hopes will be realized when we may be awakened to a just view of the same subject.

Very respectfully, H.

[ON transplanting the Sour Gum, it will succeed if cut to the ground, when it will throw up strong and vigorous shoots.—ED.]

THE CATAWISSA RASPBERRY.

DEAR SIR:

I believe I cannot be said to be one partial to novelties, merely because they are new. I have rather the reputation of being severe on most new introductions, as I get disgusted often with the severe trumpeting most new things receive. Thus it was with the *Catawissa Raspberry*. I smiled when I found my neighbors paying their dollar a plant for it, and ventured an occasional hint that "a fool and his money were soon parted;" but when, last fall, I found that they had good raspberries on their table, and I had none, I bethought me, who was the fool then? At last, (it being, I think, about the middle of October,) happening to be on a visit to a neighbor of yours in Germantown, I saw a single bush literally loaded with fruit, and through the generosity of its owner, was permitted to eat freely thereof. This decided me that I was the humbugged, and the last spring I set out half a dozen, from which I have had a fair supply of good fruit the past three months, and even this day (Nov. 1st) have gathered no mean quantity, considering all things.

Now, sir, I am rather surprised to find, by a report of the Pomological Convention which I have read, that that body considers it worthless, and should be glad if you could tell me why. I freely admit that the fruit will not compare in flavor with such kinds as Brinckle's Orange; but do we eat these in October? I would exclaim with Portia:

> "How many things by season seasoned are
> To their right praise and true perfection!
> The nightingale, if she should sing by day,
> When every goose is cackling, would be thought
> No better a musician than the wren."

It is the *season* which, to me, gives the Catawissa all its value, and I do not see why it should be so thoroughly condemned. Yours, FRANKFORD.

[WE can scarcely answer our correspondent's inquiry to our own satisfaction, but believe it was considered worthless in comparison with the *Merveille de Quatre Saisons*, and perhaps some other of the newer imported French and English kinds. In this section of the country, however, we have not seen any of these in fruit, and it is, therefore, uncertain how they will do. The Catawissa does do well here, and no one can mistake in planting it. Whether or not these other kinds do eventually prove superior in productiveness or flavor, this kind will always have an advantage in being derived from an indigenous stock, which will render its hardiness incontestible.

There are some who have no faith in ever-bearing fruits,—not so much from any experience in their culture, as from a prior conviction that it is unnatural for a fruit-tree to be continually bearing, without exhausting itself; but our Perpetual Carnations, Roses and other plants, as well as many kinds of tropical fruits, show that this reasoning is untenable.—ED.]

HORTICULTURAL BOOKS, like Geographies and Maps, soon become obsolete; and it is in Periodicals alone that we have to look for all the recent improvements and inventions.

RASPAIL ON THE PROTECTION OF PLANTS FROM INSECTS.

MR. EDITOR:—

Upon looking over the "Revue Complementaire des Sciences Apliquées à la Medecine et Pharmacie, à l' Agriculture, &c., par F. V. Raspail, Bruxelles, 1854, 1855," my attention has been called to an article by the author, on the "Use of Aloes as a Preventive of the Attack of Insects upon Vegetables."

I consider the subject a highly important one. As I have never seen it in print in this country, I take the liberty of furnishing you with a translation, trusting that it may prove of sufficient value to merit a place in your journal.

I would say, in advance, that Mons. Raspail ranks among the very first chemists of Europe. As an agricultural chemist, and as a close and accurate observer, no man is more worthy of attention. He is emphatically the Chemist of Gardeners; embellishing his science by a life of practical usefulness, and rendering himself dear to all who know him, by an urbanity which never fails. His article may, perhaps, give us a clue to a method of ridding the Plum tree of its pest, the curculio. I shall certainly make the experiment the coming season, upon my own trees, with a reasonable hope of success.

In the number for September, 1854, Mons. Raspail says:

"Some months since I published in the journals, and more recently in the 'Fermier Veterinaire,' a method of preserving and freeing plants of their parasites, by means of a simple infusion of aloes. Thus the trunk and branches of an apple tree, covered with the wooly-coated plant louse (*pucerons lanigera*) were rid of these vermin by a single washing with a solution of aloes; and the year following, the new brood made their appearance but for a few days, as the washing had not been repeated. Upon Peach trees, the leaves of which were effected by that form of diseased swelling, called by gardeners "curl," we have seen these injured leaves giving place in a short time to a new and luxuriant vegetation, simply from the application to their cracked trunks of a coating of clay, tempered with a solution of aloes. With regard to these trees, the disease did not come from the attacks of the woolly-coated plant louse, as I did not observe a single individual upon them at the time of the diseased limbs. I had heretofore imagined this disease due to the presence and attack of these insects in the cracks of the trunks.

"This year, the storm of May 5th having blighted two of these trees throughout, and another near them, in part, all the leaves being blackened or carbonized, so to speak, in a single day, I applied to their trunks the remedy which had preserved other trees, and enveloped them in a strong coat of clay, tempered with a solution of aloes. The success surpassed my hopes; one of the three was injured to the core, and we had reduced it almost to the bark in order to withdraw the dead portion. But new branches covered with foliage, put forth upon the old ones long before the flow of sap in August, and not a single Aphis was found upon the lower surface of the leaves; not an ant roamed over the branches in search of them; and the ant is very fond of their eggs.

"Observe, that I do not wash the branches; and consequently the leaves, in putting out, could not have coated themselves with the aloes from the effects of rain. Nevertheless, parasitic insects refused to feed upon the leaves, as though they had been coated with gall.

"Is it not, therefore, certain that the trees were imbued with aloes through the sap? Did not the trunk and roots absorb this substance in order to transmit it to the leaves through the circulation? And why not, since roots can convey to the sap arsenic, mercury, and other metals?

"All this leads me to believe that we will be able to preserve certain vegetables from their parasites, by watering their roots with a solution of aloes. We may thus communicate to them a dose of bitterness sufficient to disgust the insects, although inappreciable to our palates."

In the number for February, 1855, in speaking of the dangers of preparing seed with arsenic to protect it from attacks of birds and insects, Mons. Raspail says:

"Why, then, use poison alike injurious to man and to parasitic animals, when we have at hand a substance which drives away insects, and cannot possibly injure him who uses it? I speak of aloes.

"Dissolve three ounces of aloes in 145 gallons of water. This quantity of liquid will serve to prepare the seed for eight or ten acres of land, at least, if you do not waste it; and I can assure you, this preparation will protect from the attack of insects, not only the seed, but also the future plant. My experience this year with trees which formerly were devoured every year by insects, leaves me no doubt upon the subject: this preparation with aloes will produce certainly the effect on the crops which a single watering with this substance produces on the growth of fruit trees."

Mons. Raspail has given the result of some experiments made upon the same subject since the above papers were written by him. I have, as yet, not had an opportunity of seeing these papers. When I do, if agreeable to you, I will make them the subject of a future communication.

I am very truly yours, W. M. UHLER, M.D.

FALLS OF SCHUYLKILL, Phila.

[THE only notice we have ever seen of M. Raspail's experiments was, we believe, in the London *Gardener's Chronicle*, about the time of their first publication in France. The subject has since been overlooked, but is well worthy of further experiment.—Dr. Uhler has our thanks for introducing it, and our readers will share with us the hope that he will again favor us, as promised.—ED.]

NEW METHOD OF REGULATING THE TEMPERATURE OF THE BORDERS OF COLD VINERIES.

BY WILLIAM BRIGHT.

Logan Nursery, Old York Road, Phila.

ONE of the chief points in the management of Vineries, as all intelligent gardeners are aware, is to control and regulate the temperature of the borders, so as to give the roots an early start in the spring, and to put them into a state of repose early in the fall. If the growth of roots be too luxuriant in the fall, in consequence of excessive heat in the border, immature roots and wood will be the result, greatly to the detriment of the vine the ensuing season. So if the vine, by frost, prematurely lose its foliage, then the main roots cannot be matured, and a good "break" of buds cannot be expected in the spring. There must be a perfect unity of action between the upper extremity of the vine and its roots to ensure the highest degree of success in grape culture.

In the fall, as we all know, the temperature of the atmosphere will often fall to 40° Fahrenheit, while the earth two feet under the surface is at 65°. On or about the 15th of November, 1857, the thermometer fell to 17°, and the foliage of many vines in cold houses was suddenly cut off, while the bottom heat of the borders was at 60°. Immature roots, which could not be expected to keep, were produced. Such vines must, of course, "break" weakly in the spring; their great feeders are mainly destroyed, and they must create them again in the spring before they can make strong growth.

In April the solar heat is often 75°, while the temperature of the earth is little higher than the freezing point. In such cases, the canes are, of course, unduly excited into action, while the roots are comparatively dormant, and the natural balance of the vine or the nice unity of action between the root and the wood, which it is so important to preserve, is destroyed.

To attain the most perfect success in vine culture, it would be desirable to keep the border heat, in spring, about ten degrees above the solar heat, and to reduce the temperature of the border in autumn in the same proportion. As soon as the grape crop is matured, we should hasten, by all proper means, the ripening of roots and wood,—the border should be dried and cooled, and the roots thrown into a state of repose. As soon as the roots cease their functional action, the upper wood will be in a state of repose.—So, in the spring, a quick heat in the border will start the roots at the same time with the canes, and a healthy growth of roots and wood must be the result of such harmonious action.

How to accomplish this very desirable object is the question. I have done it very successfully within a few years past, by means of *Atmospheric Conductors*, or "air pipes," as they may be called, to conduct the warm air in spring and the cool air in autumn to the *bottom of the borders*, thus making Nature supply heat to the roots, as well as the tops of the vine, or assist in cooling the borders, as required by the changing temperature of the seasons. This is a simple thing, but a very admirable and valuable one in practice.

My atmospheric conductors, or air pipes, (my men *will* call them "air drains,") I make about four inches square, and set them six or eight feet apart. They pass from the *outside* to the *inside* of the house, so as to conduct the common atmospheric air to the bottom of the vine borders, rising within the house about four feet beyond the vines. The openings of the pipes, inside the house, have plugs fitted to them to check the passage of the air when desired. The air passes very freely through these conductors, and affords the very best front air ventilation to the house, without bringing the currents of air immediately in contact with the foliage, which is always to be avoided if possible.

Now for the practical working of these air conductors. When the thermometer sinks to 28°, in October and November, and the vine borders are at from 60° to 75°, the atmosphere of one such night passing under the vine borders, through these conductors, will cool the borders through three feet of soil, ten degrees, and three such nights will reduce the temperature of the borders twenty degrees. In the same way in spring, the atmosphere, warmed by solar heat, passing under the borders, through these pipes, will raise the temperature from about 40° to 60°, (or 20°) in a few days, whereas, without such a contrivance, the vines will be stimulated into action by solar heat, while the roots remain dormant, and the most disastrous results will ensue.

I claim that these atmospheric conductors are capable of raising and lowering the temperature of vine borders 20° at least, as the temperature of the atmosphere varies, spring and fall; the very 20° it is so important to control,—the very point in temperature where the functional action of the vine begins and ends. If we can control the temperature of the borders, and make them nearly correspond with that of the canes at all seasons, without artificial heat, it is a grand point gained, as all will admit. This object I believe I have perfectly achieved, as above described, and the result is a great triumph in grape culture, as may well be imagined. Well ripened roots and wood are obtained in the fall, and a strong "break" in the spring, with abundance of feeders at the bottom in full action at the moment the buds start, making an early and strong growth of wood, and perfecting a fine crop of fruit early in the season, without those miserable failures that so often attend grape culture in the cold vinery. I consider this method of controlling the temperature of vine borders of immense value to gardeners and amateurs, and have no doubt it will be extensively adopted.

As it is difficult, without illustrations, to explain the method of constructing atmospheric conductors, in all their details, I will not attempt it here, but will be happy to give details and working plans to any person who may desire it.

Yours respectfully, W. BRIGHT.

[THE subject treated of by Mr. Bright is of great importance to grape-growers, and we have no doubt that his suggestions will be extensively followed.—From his long and varied experience, Mr. B.'s opinions are entitled to great weight, and we hope he will favor us with the details and working plans, which we shall be most happy to insert in a subsequent number.—ED.]

DELAWARE GRAPE.

THE family of Mr. Steele, after particular inquiry, have failed to elicit from Mr. Provost any further particulars concerning the history of this Grape.

Unless found identical with some foreign variety, its particular origin will probably forever remain a mystery.

They have, however, demonstrated this season, that, with ordinary care, these grapes make excellent raisins.

Mr. S., with true horticultural liberality, has distributed cuttings among his friends, who will try their success in its culture. J. K. E.

DOWNINGTON, PA., December 10, 1858.

LARGE AUSTRIAN PINE.

ON the grounds of H. Ingersoll, Esq., near Philadelphia, is a fine specimen of this Pine, twenty-one feet high, and its branches extending to over seventeen feet in diameter. Has any one of our friends a better?

The Gardener's Monthly.

PHILADELPHIA, JANUARY 1, 1859.

PUBLISHER'S CARD.

THE Publisher feels bound to comply with the very general desire which has been expressed, that the form or shape of this periodical should be changed from that of the Specimen Number to one more convenient for use and better adapted to binding. In making this change, the Publisher has taken the opportunity of still further increasing its size and the amount of its reading matter. He would also call attention to the consequent change in the rates per column for advertising, which are, however, carefully based on the rates charged in the Specimen Number. The office of the paper has been removed to the spacious and commodious building No. 23 *North* Sixth Street, where will be kept a record of gardeners wanting situations, and where any catalogues of seeds, plants, grafts, fruit or implements, for distribution or examination, will be gratefully received.

All *business* communications should be addressed to the "Publisher of the *Gardener's Monthly*," No. 23 North Sixth Street, Philadelphia, and communications to the Editor, to Thomas Meehan, Germantown, Philadelphia.

CONGRATULATORY AND EXPLANATORY.

IT is customary at the *end* of a volume or season, for an editor, if he has been very successful in his labors, to return thanks to those kind friends to whom he has been indebted for their support. We desire to reverse this practice in this instance, and thank them in the beginning. We had no idea that our friends would rally so numerously and so enthusiastically around us as they have done, and we can only attribute their great interest in our cause to their conviction that we shall continue as our Specimen Number indicates, to lay before them reliable practical information on horticultural topics, and on horticultural topics *alone*. Several friends have been pleased specially to express their approval of that part of our "platform" referring to what information we shall *not* give; and we will again repeat, that we know no party, no section, no clique. With the country, religion, or politics of any individuals, we have nothing to do; nor shall any such allusions be by any one indulged in. We know "no North, no South," and expect to make our paper as useful and fully as welcome to our Canadian friends, or to those of California, Florida or Texas, as to those of Massachusetts, Pennsylvania or Maryland. The *Gardener's Monthly* will be *horticultural* in religion, in politics *horticultural*, and in nationality it claims to be a citizen of the whole *horticultural* world.

COTTAGE WINTER GARDENING.

DURING the winter, it is pleasant to see any thing green and flourishing in our rooms. If the cottager cannot afford the time to attend to a window full of flowering plants, let him at least procure a small keg, and with an auger bore it full of holes. Then fill it with good earth, and plant a parsley root in each of the holes. It will soon, if properly and regularly watered, form a perfect mass of green, and also serve to flavor his soups and stews. He can also procure some carrots, cut off the points or lower halves, and turn them with the top down, and scoop out a portion of the inside, taking care to leave all of the top, or crown of the root, and fill the cavity with water, hang them up anywhere by a string; they will soon grow and form very beautiful and interesting objects. He can also in February or March sow some tomatoes, egg plants, peppers, cabbage and lettuce in boxes of earth in his windows, and when planting time comes, he will have a good supply of his own.

GRIFFIN'S ALMA LETTUCE is a new variety of the *Cos* kind, that requires no tying up.

INFLUENCE OF HORTICULTURE.

THE fall elections are past, and every voter feels a degree of satisfaction when he reflects that he has done his share, as he thinks, towards the prosperity of his country. Aside from those with whom politics is a trade, and a means of subsistence, the whole community is moved with the spirit of patriotism; and, however variously individuals may vote, the main object of all is the greatness, the prosperity, and the happiness of our beloved country.

A great writer says that there is not a more honorable station in society, than that of a truly virtuous, wise, and able statesman. The man who can lead a nation to the highest pitch of commercial greatness,—who can so frame laws that shall prevent might from triumphing over right, and reconcile and induce the most conflicting interests to work together in harmony to produce the greatest good to the greatest number,—who can lead his country with a strong arm safely and firmly through any danger that may threaten it from within or without,—is, indeed, one to be esteemed, and loved, and venerated. But yet we envy not the glory of such a position, in the face of our opportunities as Horticulturists. The greatest amount of wealth or freedom will not render a nation happy. All that we possess can be only measured by the capacity to enjoy; and the owner of untold thousands, confined to his counting-room, in a great measure, from birth to death, with scarcely the knowledge of the existence of the rose or geranium, dies poorer than the toiling mechanic who daily spends an hour in his little yard with his half-a-dozen fruits or flowers.

Envy the statesman? No, indeed! Let them who, in the innocence of their hearts, believe that to make men individually wealthy and free, is to make their country glorious and great, still pursue their useful and honorable career. Let it be our's to teach the masses how to enjoy life,—how to employ the wealth which wise laws and a free constitution have enabled them to accumulate,—how to turn to the greatest advantage the valued liberties which even the humblest sons of toil possess.

In gardening alone we have a source of the purest enjoyment adapted to every capacity. No man can be dull, melancholy or miserable, who really and and truly loves flowers; and no man who cultivates a garden for its own sake, will be, to any great extent, vicious and immoral. The humanizing influence of gardening is proverbial. Not only to ourselves do we owe it as a duty to cultivate a taste for Horticulture; we owe it, also, to our fellows and to our country,—to virtue, morality and happiness,—to use every means in our power to develope and extend the taste to all around us. "The man," says our valued friend, W. C. Strong, in a private letter now before us, "who can get hold of the humbler classes, and diffuse such a love of gardening amongst them as distinguishes the English cottager, such a man will do a work that will entitle him to the everlasting gratitude of the nation. The influence of a pretty home, surrounded with plants and fruits and flowers, —why, if our people really can have the benefit of this, we shall indeed become a great nation, in spite of selfish rulers and hungry politicians. But will it ever be?" Indeed, my friend, it will. It rests with each one of us, and all of us, individually by our example, collectively in our societies, and more than all, in our literature. We have but to go at it with a will. The soil is here, and of unexampled fertility; let each do but his own share of seed-sowing, and the most abundant harvest will soon smile on our efforts.

There are individuals, as there ever have and always will be, to whom the love of gardening is an unknown enjoyment: not only amongst the humbler classes, but also with the wealthiest and, in many respects, refined. It is quite possible for one to be so wedded to the pursuit of the means of happiness,—that is, wealth,—as to have no desire for its enjoyment; indeed, to be so far in love with his privation, as to be like the French prisoner of the Bastile, quite pleased with his fate. Horace, in one of his odes, tells a good story of one Alphius, an old usurer, who, getting disgusted with his calling, and suddenly enamored with a country life, starts into gardening, and amuses himself by training and pruning his vines, and "gladly gathering the grafted pear."

"Ut gaudet insitiva decorpens pyra."

But finding, contrary to the opinion of the late Pomological Convention, that "Pears will *not* pay," he collects in all his money on the ides, (middle of the month,) and puts it out again on the calends, (first,)

"Relegit Idibus pecuniam
Quaerit Calendis ponere,"

and thus he returns to his old habits again.

The descendants of Alphius will probably never entirely cease to be; but we can do much towards proving to many of them, that ignorance of such matters is any thing but the bliss they suppose it is.

DRIED WHORTLEBERRIES.

DRIED Whortleberries form an excellent substitute in puddings, cakes, or even mince-pies, for the imported *Currant*, which, by the way, is not a Currant at all, but a small seedless raisin or grape. We have had an opportunity recently, through the kindness of a friend, of tasting them cooked in a variety of ways, and have no hesitation in saying that they are not only an excellent substitute for, but we think quite equal to, the imported currant for cakes and puddings, and we have no doubt they are equally good in mince-pies. The best judges might easily be deceived by them. The seed—which in the ripe fruit is so hard as to be quite disagreeable to eat—seems to dry up during the dessicating process, and is scarcely perceptible. For several years past the Zante *Currant* crop has been almost a failure, and the price has risen in consequence, so that the retail price for two or three years past in this vicinity has been from 30 to 37 cts. per pound, and is now from 15 to 20. We should suppose that dried whortleberries could be furnished at about 8 or 10 cts.

We commend this subject to the particular attention of our New Jersey and Delaware friends, where the fruit is so abundant. They are dried in the sun just like cherries.

SHALL WE TRAIN OUR FRUIT TREES?

WHEN an European gardener comes to this continent, he soon abandons his practice of training fruit trees. He considers it so much waste time. When a "greenhorn" arrives, and inquires for the trained trees he has heretofore prided himself in understanding so thoroughly, his professional pride falls to zero when coolly told by his acclimated friend, that it is "all nonsense." "It is all very well to talk of training in a country where it is all-important to lead into every leaf and branch all the sun and light you can get; but in this country we have too much of the good thing, and so the less you have to do with training, the better."

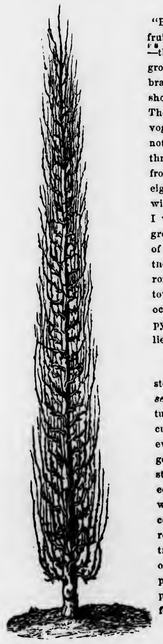
Supposing that the sole object of training is the admission of sun and air, this reasoning is plausible, and the abandonment of the practice not surprising; but is there no other object to be gained which training may compass?

Passing, last fall, through the well-kept kitchen garden of George R. Smith, Esq., North Philadelphia, we were treated to a fine show of Peaches, and we think Nectarines also, in tolerable abundance, from trees on the west front of the kitchen garden wall,—while the standard trees in the immediate neighborhood were entirely fruitless. The warmth of the wall had, no doubt, protected them from injurious spring frosts, and, in some measure, from the attacks of insects. It is extra trouble, undoubtedly; but now that we are beginning to be innocent of the extravagance our forefathers indulged in, of raising Peaches, Plums and Apricots, by the bushel, and we have to practise the eremitic virtues in our bill of fare, from necessity, and not from choice, it becomes a pertinent question, whether such extra labor will not "pay," after all.

By training trees,—whether on walls, or boards,

or fences, to arbors, or stakes, or poles, or in a shape they may of themselves sustain,—we place them, in a great measure, under our control. We can guard and protect them more easily from all injurious influences. Nor is this all. The recent development of the true principles of summer-pruning,—or rather the better acquaintance we all have made with the advantages of this practice in our luxuriant, growth-producing climate,—is closely connected with training.

To dwarf trees,—or, in other words, to make them assume shapes that will admit of a great number being grown on a small space,—we have, so far, depended nearly altogether on employing stocks of weaker growing kinds. But all this may be nearly as well accomplished by pruning and training. In a recent number of the *London Cottage Gardener*, a correspondent writing from France, gives very interesting accounts of the extent training is there resorted to with this object. We have been so much interested in his account of the *en fuseau* mode of training, that we have taken the trouble to procure a sketch of it from another source, to accompany the description the writer gives. He says:



"Before the Revolution of 1793, fruit trees were grown *en fuseau* —that is to say, on single stems grown to any height without branches, but furnished with shoots from top to bottom.—They have again come into vogue. That they bear well is not to be doubted, for trees of three and four years old, and from three to seven, and even eight feet high, were covered with fruit from top to bottom. I would advise our fruit tree growers to cultivate this style of tree, so well calculated for the small gardens in the environs of London, and our large towns. Eight of them would occupy no more room than three pyramidal trees, or two espaliers, and are remarkably pretty.

"The Peach trees with single stems, is the same idea—a *fuseau* against a wall. I saw it turned to another purpose, more curious and ornamental, however, than useful, or advantageous. Half a dozen single-stemmed Pear trees were planted in a circle, in the centre of which is a trellis of wire, (necessarily circular,) round and round of which the six trees are trained, equi-distant from each other. The different Pears, appearing thus to be one tree, produced a very pleasing effect."

It is not our intention in this article to go into the details of training; but as we have given a sketch of the *en fuseau* mode, it will not be out of place to say a few words as to the manner in which trees are produced in that form.

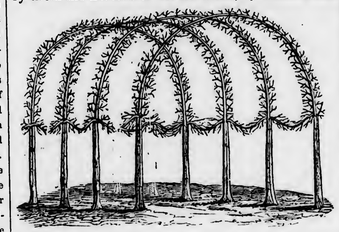
A young and vigorous plant is taken, and cut off at a point much higher than is usual to form a pyramid, say some four or six feet high, according to the vigor of the plant, as it is desirable to develope the stem-buds rather into weak branchlets, than vigorous shoots. During the summer the plant grows as seems best to itself, the only care being to see that a leading shoot is encouraged to predominate.

At the second pruning the leading shoot is cut in the same manner as the stem was at the first; and the very vigorous shoots that will spring out just beneath where the first season's cut was made, are taken out altogether. The less vigorous shoots below these are cut to within a few inches of their base, and the lowest left nearly or quite entire; care being taken to preserve the fusiform shape of the tree. As before, the shoots are left to themselves during the summer, taking care only to remove those which are disposed to interfere with the leading one.

At the third winter's pruning, any vigorous shoots that may strike out from the main stem, and seem likely to compete with the main side branches left, are cut away; what new branches are made on that season's stem are operated on as the former year's growths were, and so on in each successive year. By this system the whole length of the main stem is clothed with branches, covered with a dense mass of branchlets; and if sometimes vigorous shoots appear, they have only to be taken out.

In our climate, we should have most to fear from the greater force of the sap in the upper shoots, rendering thereby the lower ones feeble; but the weakening effects of summer pinching on a strong-growing shoot, and thereby strengthening any weaker ones that may be below, is now so well understood by our principal cultivators,—probably even more so than by the French gardeners themselves,—that this obstacle could be easily overcome.

The French are very ingenious in training trees.—Many of their modes are, doubtless, more curious than useful. Below we give a sketch of a plan called by them the *Berceau* or cradle mode, by which some



very pretty natural arbors might be made. The trees are planted in two parallel rows, and the tops inarched or grafted by approach.

AT a recent visit to the beautiful country-seat of Captain H. Ingersoll, at Green Lane, on the line of the North Pennsylvania Railroad, we were much struck with the luxuriance and beauty of several specimens of the rare *Linum grandiflorum rubrum*, flowering in the open air. We were the more pleased as our own attempts at cultivating it have proved a complete failure,—the plant dying out soon after the first few flowers had been produced. We have heard that in England they do not succeed well with it, believing that it will not stand the sun. Here it is growing in a very exposed situation, and one both very hot and dry. If our cultivators can approach to the great success Mrs. Ingersoll has achieved, it must become very popular as a bedding-plant. A Nierembergia gracilis, covered with reddish crimson flowers, conveys exactly the idea of it.

Though our visit was very hurried, and occupied but a few minutes, we could easily fill a page with an account of the many interesting objects that adorn these grounds; as well as by dwelling on the delicate beauty of the grounds themselves, and the rare taste that pervades every part of them. Objects of interest crowd on each other so unexpectedly, and yet so naturally, that the most weary traveller would scarcely care to rest till he had walked through and around them. A stranger can but enter these grounds, to instantly feel why our great Downing so delighted in them.

The finest *Kolreuteria paniculata* we have ever seen is here. It is probably twenty feet high, and its head very dense; and the thousands of seed-vessels attest how glorious must have been its beauty when it was in its fullest bloom. The best specimen of *Austrian Pine* here is worth, in these railroad times, a long day's journey to see. The numerous cones with which it is studded, add much to its charms. The elegance of a fine bush of *Cunninghamia Sinensis* strikes the commonest observer. It stands here very well, indeed.

One of the chief pleasures derivable from the pursuit of Arboriculture is in seeing our *protegees* grow; but what shall we say when we can watch this nascent power in the place itself? And yet this is but a feeble idea; for it always seems to us with every visit, that a new place has been formed with the general features of the old one, rather than that it is the full-grown idea we knew before only in a juvenile state.

Since we had last the opportunity of enjoying ourself here, some large masses of Rhododendrons have been formed, and promise, to use a theatrical expression—an immense success. If the promises which have so successfully budded forth, advance to a fruition, we shall not long have cause to envy our Transatlantic friends. The idea that the native country of a plant is not fitted for its growth, is an absurdity too palpable to need refutation. Mrs. Ingersoll attributes her success mainly to the proper preparation of the soil. It was trenched two feet deep, and mixed with sawdust, leaves, and any refuse vegetable matter at hand. The object—namely, to have a cool, moist soil in the dryest weather—being thus effectually obtained. This was also aided by a mulching of short grass.

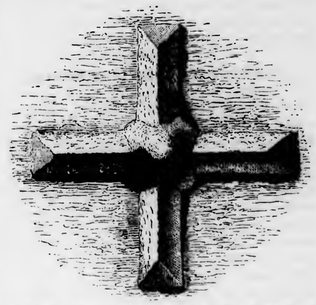
If we were pleased with the beauty of the grounds, we were no less gratified with the improvements manifest in other departments. A fine orchard-house is in a fair way of completion, built on the same principle as that described in our Specimen Number by our friend "Schuylkill." It is divided in three sections, one of them designed for very early forcing. Every thing is very strong and substantial; a single eye having been had to have every arrangement perfect.

CORRESPONDENCE.

WE are gratified in being able to announce to our readers that we have secured the services of two regular correspondents in England,—persons who, from their long and practical experience, are eminently qualified for the position, and who have peculiar facilities for obtaining the earliest and most reliable information on horticultural affairs. We are also in hopes of obtaining one in Paris.

PROTECTING THE FIG.

THE Fig tree, in many of our city gardens, stands the winters perfectly well without protection; and with but very slight protection, could be grown much further North. We annex a cut of the mode adopted for this purpose in the North of Europe.



The Fig tree is kept by pruning rather dwarf and encouraged to branch near the ground, and in the fall the shoots or branches are tied in four bundles of equal size. A circular mound of earth is then thrown up around the base of the tree, and then the four bundles of branches are bent carefully down and covered about a foot or eighteen inches deep, so that when completed, the earth will present the appearance as shown in the engraving annexed.

THE GRAPE QUESTION.

Of all subjects that at present excite the attention of Pomologists, the Grape stands pre-eminent. "What is the best Grape?" "Which of the new ones do you prefer?" "What is the hardiest?" And the answers vary with every State. The whole subject needs a thorough overhauling. New kinds are becoming as plentiful as blackberries, and the purchaser is thoroughly bewildered in his attempts to choose. Supposing he does decide, and plants what, after much thought, he believes to be the best: a season is scarcely over, and his plant about ready to bear, when he is advised to root out his standard kind and replant with some *Fox River Seedling*, or somebody's *Muscat Superba*, and so he plods through life, noted as a grape-grower, but without enjoying the fruit of his vine.

Now, this is all wrong; but how is it to be remedied? Simply by fixing a standard of excellence, and by the purchaser taking care to ascertain whether any new candidate for his favor is fully up to the requirements of that standard. If a new grape does not possess any one point in which it is superior to other grapes, it should not be named or noticed. It is not enough that it is "a superb" grape, or an "abundant-bearing grape," or a "hardy grape," or a grape that the celebrated Professor Brown, or White, or what-not, pronounces "the finest he ever tasted, or saw, or heard of,"—the test should be: how and in what respect is it better than others we already have?

What, then, is the test of a superior grape?

1st. It should be adapted to the climate in which it is to be grown.

2nd. It should be a free and abundant bearer.

3rd. It should be of superior flavor.

The first is very important. If it be as good as a Hamburg, and bear like a Chicken Grape, and yet mildew in summer, or freeze down in winter, it is worthless.

Leaving out for the present the few who think a Fox Grape the perfection of flavor, there can be no doubt that, so far, we have been unable to produce a native grape of "Hamburg" excellence. The difficulty with the foreign kinds is said to be with the climate. When the pioneer of grape culture in this country, Nicholas Longworth, first experimented at Cincinnati, the foreign varieties were first attempted, and utterly failed; but our country is large, and there may be other sections where they may thrive to perfection. We have of late years taken it for granted that a foreign grape will not do here anywhere, and no further cry is necessary to put down a new grape, than that it has foreign sap in its vessels. "Foreign grapes are not hardy," it is said; hence the importance of tracing its origin. Now, it is a singular fact, and one well worthy of deep reflection, that *wherever the foreign grape does not mildew, it is perfectly hardy.* Whenever the leaves of a plant fall off prematurely, by mildew or otherwise, the wood cannot ripen; and a grape in this condition, native or foreign, has a small chance to get through even a Virginian winter. But do all foreign grapes mildew? As with pears we have a Bartlett or a Louise Bonne de Jersey, that equal, at least, any native kind, why may there not be a few grapes of similar merit? Mr. Elhanan Keyser, one of the most respected members of the Pennsylvania Horticultural Society, and an active member of its Fruit Committee, has a *Black Hamburg* in his city yard bearing abundant annual crops; but yet, a few miles out, where the great aridity and sudden changes so favorable to mildew, are more potent, the *Black Hamburg* is very uncertain.

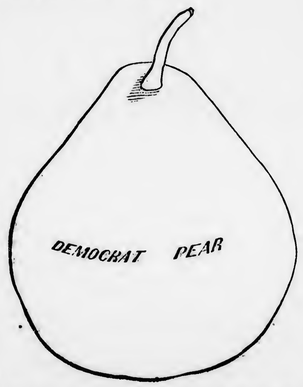
The *Canadian Chief*, which in its place of origin stands unharmed a most rigorous winter, mildews here so badly, that a simple white frost kills it to the ground; while the *Brinckle*, a variety of undoubtedly foreign derivation, within a few feet of it, dies off with its foliage as red as a gum-tree, and its wood of an iron hardness. The *Clara*, also, probably another scion from a foreign stock, and which for its well-sustained merit the Pennsylvania Horticultural Society has recently again awarded a handsome premium, seems here, at least, free from mildew, and, as a consequence, perfectly hardy. Some of the imported foreign kinds, also, if fairly tested, might also be available. In the garden of Mr. William Saunders we recently noticed a *Zinfindal* remarkably healthy, equal to the hardiest native kinds for fine foliage.

There is plenty of room for further experiments in this matter; and we hope and trust our observing readers will forward any facts they may come across.

We have tasted scores of new unnamed grapes this year, that our friends have introduced to us; but we do not think any of them superior to others already out. For general purposes, the *Isabella* will yet hold its own for a while; the *Concord* and *Diana*, perhaps, contesting its right to a place in a Northern climate; and amongst the newer ones the *Rebecca* and the *Delaware*—some of the more recent introductions, will perhaps, quite supersede these; we hope they will be extensively tried, so that we may soon learn their *universal* character.

THE DEMOCRAT PEAR.

About the end of August last, we received from our friend, Josiah G. Youngken, of Richlandtown, Bucks County, a collection of Pears of his section, among which one marked "The Democrat" struck us as being very distinct and superior to any August Pear known to cultivators generally. Equal to the Ott in flavor, and double its size; rivalling, in this last respect, the Beurre Giffard; we have no doubt of its becoming extremely popular.



We had the accompanying drawing taken from an average specimen, and wrote to Mr. Youngken for its history, who says:

"The *Democrat* originated in Hanover Township, Lehigh County. It was so named by Mr. Fry, and is now generally known under that name. A Mr. Houpt claims, however, to have originally brought the grafts from Moore Township. It is the best pear I know of in its season. It ripens about the end of August, nearly as large as the White Doyenne, and, like that variety, with a profusion of dots over its greenish yellow surface.

Besides its superior flavor, it has the advantage of being a regular and abundant bearer, knowing no alternate season of rest, and a strong grower besides. Another thing which I think recommends it strongly is, that like the Louise Bonne de Jersey, Duchess, Bartlett, and a few others, it usually comes into bearing the second year after grafting."

The Immortelles, which are imported from France, and sold now in such large quantities in the streets for winter bouquets, *Le Bon Jardinier* says, are all of one species, *Gnaphalium orientale*, which is a light yellow. The others are colored artificially.

PIE MELON.

At a recent meeting of the Pennsylvania Horticultural Society, Mr. E. Tatnall, of Wilmington, Del., exhibited some specimens of a Melon, which closely resembles stewed apples, when boiled, both in appearance and taste. The seed was brought to this country from California, and is said to have been brought *there* by the Chinese.

The Secretary of the Society had some of it boiled after taking off the outer rind, and we had an opportunity of tasting it, and found it to resemble stewed apples so closely, that we might easily have been imposed on by it. We consider it quite an acquisition to our gardens. We have distributed a few seeds to some of our Jersey friends, whose soil is well adapted to the growth of melons, and hope to hear a good account of them next season. We hope Mr. Tatnall will favor us with a more satisfactory account of its origin and mode of culture.

CENTRAL PARK, NEW YORK.

The great work of the age is the Central Park of New York. In another year it will be thrown open to the people. It will stand for ages a memorial of the sagacity, taste and energy of the men who have built up that city and made it the metropolis of our country. The men who have spent years of toil in their devotion to this public pleasure ground, have their reward in the consciousness of having conferred great and lasting benefits on the toiling millions of the city. Thousands will visit this beautiful creation of nature and art; and while enjoying the beautiful scenes spread out before them, will feel the pride of ownership in it, though no other foot of God's earth be theirs. Little children in their gambols, and age, resting under the well-shaded walks, will bless the memory of the men to whom they are indebted for so much rational enjoyment.

It is now more than seven years since the first official steps were taken to provide a Park for New York. On the 5th day of April, 1851, Ambrose C. Kingsland, the Mayor of the city, in a special message to the Board of Aldermen, urged the necessity of securing an ample area of ground for the purposes of public recreation. Mr. A. J. Downing followed this up by an able article in his magazine, "The Horticulturist," deploring the fact that New York, and American cities generally, were voluntarily and ignorantly living in a state of complete forgetfulness of nature and her innocent recreations. He referred to the manner in which the population of the cities in France and Germany pass their afternoons and evenings together in beautiful parks and gardens, and pointed out the importance of the social influences of such places in elevating the tastes of the masses of the people.—The municipal bodies of the city seconded the views of the Mayor, and at once procured the necessary legislation. On the 11th of July, 1851, an act of Assembly authorized the city to take a tract of land on the East River for a Park. This tract is known as "Jones' Woods." Subsequently a more central situation was preferred, and the Legislature passed, on the 23d of July, 1853, an act for taking the ground now known as Central Park. Under this act five Commissioners of Estimate and Assessment were appointed to assess the value of the lands taken for the Park, and to assess the owners of the adjoining lands for the benefit they would derive from the improvement. These Commissioners were appointed in November, 1853, and two years were occupied in the task imposed on them. Their report was confirmed by Judge Harris, of the Supreme Court, on the 5th of February, 1856. The lands taken for the Park extend from Fifty-ninth Street to One Hundred and Sixth Street, lying between the Fifth and Eighth Avenues. The lower line is about five miles from the Battery, and the upper line about the same distance from the upper end of the island. The Park will be about two miles and a half in length, and over half a mile in width. 776 acres of land are embraced within these limits. 7520 city lots were taken, and

their value assessed at five millions one hundred and eleven thousand four hundred and twenty-six dollars and thirty cents. About ten acres belonging to the State, upon which the Arsenal stands, were subsequently purchased by the city for $300,000. In the centre of this area stands the Croton Reservoir, covering 33 acres, and the grounds reserved for the new reservoir, covering 107 acres. The cost of surveys and other incidental expenses up to the date of the confirmation of the Report of the Commissioners amounted to about $58,000. The amount assessed on property owners in the vicinity of the Park, for benefit received, is $1,600,000. The law of 1856, for the regulation and government of the Park, provided that no plan for the laying out of the grounds should be be adopted, of which the entire expense, when funded, should require for the payment of the annual interest a greater sum than one hundred thousand dollars per annum.

The entire cost of this Park will be as follows:

Cost of 776 acres, ...	$5,111,426 30
" 10 " subsequently purchased, .	300,000 00
Surveys and other expenses, - . . .	58,000 00
Amount appropriated for improvements, .	1,500,000 00
Total amount already appropriated, . .	$6,969,426 30

In the above statement is not included the value of the 33 acres occupied by the Croton Reservoir, which belonged to the city, and which will probably increase the amount to *Seven and a half millions* of dollars, and it is thought by some that, before the entire plan is carried out, it will cost *Ten millions of dollars*. Truly this may be called a gigantic undertaking.

The surface of the ground embraced within the Park is much broken by rocky hills, and at present presents a rugged aspect. The upper portion is the most elevating, presenting some grand views of the surrounding country. There are many fine trees interspersed over the ground. The Commissioners appointed to lay out the grounds offered the following sums for designs:

For the First, - - - -	$2000
For the Second, - - - -	1000
For the Third, - - - -	750
For the Fourth, - - - -	500

Topographical plans were furnished to all applicants. On the 1st of March, 1858, the plans were opened by the Commissioners. There were thirty-three competitors. The design of Calvert Vaux and Frederick Law Ohnsted obtained the first premium, and the work of improvement is now in active progress under the superintendance of these skilful gentlemen.

From two to three thousand men are employed on the work, blasting rocks, making roads and walks, and constructing the new reservoir, which is to be made to present the appearance of a beautiful lake of irregular shape, and encircled by a drive of more than a mile in length. A Parade Ground of fifty acres has been set apart for the use of the military, and provision made for play grounds, also a flower garden, skating ponds, &c. In the upper portion an Arboretum will be formed. Immense numbers of trees are under cultivation in beds, ready to set out in their appropriate places. A substantial stone wall encloses the whole Park. Messrs. Park and Olmsted have the heads to understand, and the hearts to appreciate, the great work upon which they are engaged, and they are rapidly pushing forward the improvement of the ground. When completed, it will be the chief point of attraction in the city, and thousands of strangers will be attracted to that great mart of commerce to enjoy the pleasure of a drive or stroll through this splendid public pleasure ground.

To Robert J. Dillon, Esq., of the New York bar, more than perhaps to any other citizen, is New York indebted for this great improvement. From the first he has given his whole heart and soul to the cause, and as one of the Commissioners for laying out the grounds, his zeal is still daily manifested by the time and labor he gives to the good work. We annex, from the *N. Y. Tribune* of Dec. 1st, an account of the progress that has already been made towards the completion of this noble enterprize.

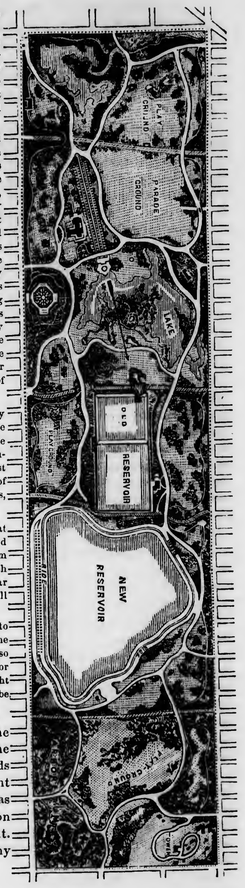
"The Central Park is destined to be one of the chief ornaments of our city and sources of rational, refining, healthful enjoyment for its inhabitants. Ultimately, it will be surrounded by the mansions of the wealthy, including some who will be drawn hither from the West Indies and from different portions of the continent in part by its attractions.—When it shall have been completed, according to the plan adopted by the Commissioners and its trees and shrubbery shall have had time to acquire strength and foliage, not to say maturity, there will be nothing in America to compare with it; and we doubt that even Europe can show a Park so adapted to every legitimate need and so perfect in all its appointments as this one.

"We urge our citizens, who have time and means, to visit the Park occasionally and watch its progress. The current impression that, as yet, it is a mere chaos, is far from the truth. A great deal of work has been perfected, though no quarter of the Park is absolutely finished. Still, there is a great deal on which the eye of uncultivated taste and enlightened philanthropy may rest with genuine satisfaction. The walks, shrubbery, &c., on the considerable area of elevated ground near the centre of the Park, are nearly completed, and are admirable. These will be fully ready for public use and enjoyment next season. The Skating Pond of twenty acres, just south of them, is to be filled and in order so soon as the weather will permit—it is hoped by Christmas, at furthest. It is now practicable to drive for considerable distances through the south part, while the Grand Promenade, fully made under foot, is being rapidly lined with thrifty elms, thirty to forty feet high, brought from the heart of Westchester, with their roots and branches nearly perfect, by Mr. Jesse Ryder, the contractor. We are to have wild birds singing in the branches of these trees next June. Some of the Bridges across ravines and hollows are finished, and others nearly so; they are mainly of a fine red brick, and make a very handsome appearance. In short, we believe every one who now visits the Park for the first time will be astonished to find so much work so well done, considering the time employed and the money expended, and will concur in our judgment that the city never before paid out money of which so large a proportion went directly into the pockets of day-laborers, who had given full value for it.

"But the foundation of all improvements of this kind must be the Draining, whereby grounds otherwise boggy or marshy at all seasons, with more that are turned into mire by tramping over them at wet seasons, are rendered firm, hard and dry for over three hundred days in each year and readily traversable at all times. Even the Bois de Boulogne is seriously lessened in value by its imperfect drainage. As ours is perhaps the first instance in America of thorough drainage on so large a scale, we believe an account of the process will prove instructive to thousands who have, if not farms, at least gardens, lawns and walks, which they would gladly render dry and solid at all times.

"About 150 acres of the Park have already been drained, leaving some 250 more that are to be. The residue consists of rocky or precipitous grounds, which do not need and do not admit of drainage. The bases of the drainage system are two ponds—one of them the Skating Pond already alluded to; the other lying south-east of it, near the Fifth Avenue. These Ponds will receive the drainage of most of the Park, which will go far to countervail their loss by evaporation. Whenever more water shall be needed, it will be drawn from the great Croton Reservoir within the Park.

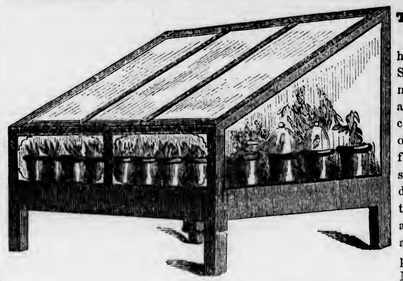
"The drains traverse the grounds at distances of forty feet apart, and are from four to five feet in depth, according to the undulations of the surface, (of which the level of the drains can, of course, take no account). In some places, the underlying rock comes so near the surface as to compel shallower drainage than four feet. About sixteen miles, or five thousand rods of drains in all, have already been constructed. The Tiles are bought at the Tile Works in Albany, it having been found impracticable to allow them to be made on the ground, as was at first intended."



Before closing this already lengthy article, we would seize the opportunity of expressing our gratification that the Corporation of the City of Philadelphia has at length taken the initiatory steps towards the improvement of Fairmount Park, which embraces within its present limits about 130 acres. The tenants have been ordered off, and it has been placed under the care of a Superintendent, and the Committee on City Property are advertising for a plan or plans for its improvement. We annex a copy of it, and commend it to the attention of our many able landscape gardeners and rural architects.

NOTICE.—Plans for the Improvement of Fairmount Park, Philadelphia, (Lemon Hill and Sedgely Estates,) are hereby invited, under the authority of an ordinance of the City Councils. A premium of $500 will be awarded to the author of the plan which is selected, and $250 will be paid to the author of the plan next in excellence. Every plan must be accompanied by an estimate, and must be sent to this Office on or before February 15, 1859. The selection will be made by the Committee on City Property. Those who desire to compete are invited to call at this office, where further information will be furnished.

J. M. CHRISTOPHER, Commissioner City Property.



THE WALTONIAN PLANT CASE.

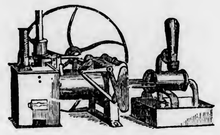
Our readers will be glad to learn, from his advertisement, that Mr. James Daniels, Seedsman, of this city, has commenced the manufacture and sale of this very useful and interesting article. It is very fully discussed in Hibberd's "Rustic Adornments of Homes of Taste." It is a glazed case or frame, made to fit a window, and the heat supplied from a small lamp and boiler underneath it. It is very useful for propagating plants from cuttings and seeds, and also for the growth of ferns, lycopydia, and, in fact, of almost every variety of plants. We have examined those made by Mr. Daniels, and find them to be very carefully and substantially made, and, in some respects, superior to those originally invented by Mr. Walton.

Garden Syringe.—J. Taylor & Sons, Warwick Lane, Newgate Street, London, have invented and patented a garden syringe. It is of the same shape and size as the common hand syringe, with the addition of a piece of small flexible gutta percha or gum elastic tube, which is inserted in the side of the syringe, and which supplies it with water from the bucket, effecting thereby a considerable saving of time.

ERICSSON'S CALORIC ENGINE.

In our Specimen Number we called attention to this engine, as it appeared to us, from its simplicity and economy, to be well adapted to driving machinery, and particularly to pumping water for agricultural, horticultural, manufacturing and domestic purposes.

At the invitation of Messrs. Canby & Brother, Plumbers, of No. 321 Arch Street, in this city, we were present at the first trial of one of these engines, which they had procured from the makers for the purpose of introducing them here to pump water.—We will endeavor briefly to describe it.



The motive *power* is derived from the expansion of rarified or heated air in a close chamber over the furnace. This expansion drives the piston to one end of the cylinder, when a valve opens and allows the heated air to escape. This process is repeated on the opposite side of the piston, and this imparts a reciprocating motion to the piston and connecting-rod and a rotary motion to a heavy fly-wheel.

The machine occupies a space of four feet long by two feet wide and three feet high, exclusive of the fly-wheel, and has a cylinder of twelve inches diameter, and its power is rated at 8 *man*-power, which is equivalent to 1 3-5 horse-power. The fire-box is 11½ inches by 9 inches, and the fire (which is of nut size Anthracite coal) is but 3½ inches in depth, so that the consumption of fuel is so small as to be scarcely calculated. The pump attached to the machine was 3 inches in diameter, and 5½ inches stroke, and would consequently throw one-fifth of a gallon per stroke, and with 60 revolutions per minute, which was its rate of speed while forcing water to an elevation of 75 feet, would give 720 gallons per hour, or 17,280 gallons in 24 hours. The cost of this machine was $350; with an 8 inch cylinder, $250; 18 inch 3 horse-power, $550; 24 inch, 5 horse-power, $750.—The expense of running a 12 inch machine is, by actual experiment under our own supervision as follows:—

Interest on cost, $350—$21, or	7	cents per working day.
Wear and tear about .	10	" " "
Oil " .	3	" " "
Coal, 48 lbs., at $1.50 per ton,	12	" " "
Total expense per 10 hours, .	32	"

The attendance required is so little as not to be noticed. The result is, that for 32 cents per day of 10 hours, we obtain the labor of 8 men, or of one man for 4 cents per day!

Incredible as this result may appear, it is nevertheless the result of careful and accurate experiment. The only item that cannot be relied on, is the allowance for wear and tear, which can only be ascertained by long use; but we think our allowance is sufficient to cover, in which opinion one of our first machinists concurs.

Seventy engines have been already built, and fifty are now ordered and in course of construction.

The manufacturer refers, by permission, to a large number of highly respectable persons in New York, Boston, Baltimore and elsewhere, who have the machines in use.

GRAPE VINES FOR FRUITING IN POTS.

We are often asked where these can be had for "fruiting next season?" We refer our readers to Mr. Bright's advertisement. We have recently visited his establishment, and were much pleased with the superior appearance of his vines and evergreens.

PUBLIC BENEFACTORS.

The *Honesdale Democrat*, of November 17th, has an able article from its editorial pen, on the relative positions of public benefactors, and general growlers at public improvements. The subject is one of general interest, and should be discussed in all our principal towns and cities. The *Democrat* truly says:

"The value of real estate in any locality depends upon two considerations—the opportunity for making money and pleasantness of residence. People who have their fortunes to make, commonly find any place, if not pleasant, at least tolerable, where money can be rapidly accumulated; but as people prosper, they prefer a pleasant locality to an unpleasant one, though not a few prefer a place be made pleasant and desirable at other people's expense, rather than at their own.

"Public squares, pavements, water-works, hotels, trees, academies, libraries, churches—set them in what order of precedence you will—are what add to the respectability and desirableness of a town. These all cost money, and the few must create them for the many. Would the citizens of Honesdale consent to have their pavements and trees removed on condition of having the money refunded they have cost? Let who will take these works in hand, some will growl. There are those who want the advantages of all improvements, but do not want to pay for them. Some do not want the use of any improvements. They prefer to jog on in the old way, and do not wish any body should go faster than they do. Such people should live in a community by themselves; for then they would have nothing to growl about and nobody to growl at Who would want to live with them?"

We are proud to say for the horticultural community, that, as a rule, it may be ranked with the most liberal of public benefactors. In our city, the numerous public gifts of trees, attest this fact. The late Elliott Cresson left a large legacy in the hands of the city, for the express purpose of planting shade-trees; and our nurserymen have not been behind with their public donations. It is, perhaps, fortunate for their public spirit that their true interest is closely connected with their generosity. If every nurseryman, in every town in the Union, were to present their fellow citizens with trees and shrubs for a public park or square gratis, he could not invest his means to better advantage.

BOOKS, CATALOGUES, &C.

We have to acknowledge the receipt at the office of The Trade List of *Josiah Hoopes*, West Chester, Pa. Rich in Raspberries and Strawberries.

"Small Fruits" of *Joshua Pierce*, Washington, D. C. Offers 9 kinds of Currants by the 100.

Freeman & Kendall, Ravenswood, L. I., N. Y., Small Fruits.

Lewis Ellsworth & Co., Napierville, Ill. Wholesale Catalogue. In addition to a very fine list of Fruit and Ornamental Trees, are Greenhouse and Bedding plants. A fine Illinois Catalogue.

S. Moulson, Rochester, N. Y. "List of leading items." Not only the names, but the quantities of each on hand are given—Pears, "Bartlett 4973; Chaumontelle 73," and so on. One may judge what is most popular in Rochester by such a list.

W. T. & E. Smith, Geneva, N. Y. Principally Fruits. Offered in very large quantities.

H. E. Hooker & Co., Rochester, N. Y. Mostly Fruits in large quantities, and names given of select kinds largely grown.

John Saul, Washington City. Trade List. Fruit and Ornamental Trees and Shrubs in very great variety. Strawberries—all the native and foreign varieties. An extensive list. Also Fruit and Tree Seeds.

Parsons & Co., Flushing, N. Y. Descriptive Catalogue. A very full list of both Trees and Shrubs, and Hot and Greenhouse plants.

W. Reid, Elizabethtown, N. J. Wholesale Price List. Evergreens very varied in kinds and sizes.

Maxwell, Bristol & Co., Dansville, N. Y. Wholesale Price List neatly got up, and the Plum offered extensively.

Thorp, Smith & Hanchett, Syracuse, N. Y. A large and varied stock.

Simpson, Ten Brook & Co., Vincennes, Ind. Catalogue of Fruit and Ornamental Trees. We are pleased to find so fine a list, and one so neat and correctly printed emanate from this quarter.

T. A. Mauge, Augusta, Geo., appears to grow mostly Roses, and these extensively.

T. K. Phœnix, Bloomington, Ill. Wholesale List of Fruit and Ornamentals, as well as Bulbs and Greenhouse Plants.

S. T. Kelsey & Co., Great Valley, N. Y. Wholesale List includes Evergreens from the woods.

Isaac Jackson & Co., Jennerville, Pa. A very large List of Strawberries.

R. Buist's Catalogue of Bulbous Roots, Philadelphia, Pa. One of the most extensive lists published.

C. Reagles & Son, Schenectady, N. Y. Supplementary Priced Catalogue—extensively in Plums.

E. C. Frost, Havana, N. Y. Fruits, Stocks, Scions, and Tree Seeds.

John Gerney's List of Vegetable Seeds, Philadelphia, Pa.

Dr. E. Taylor, "Covedale Nurseries," don't say where, but we presume at Cleveland, Ohio. Stock very extensive and varied.

A. Frost & Co., Rochester, N. Y. Trade List offers nearly every thing in quantities, and has a Map on the cover, that the purchaser may lose no time in his attempts to find the spot where they grow.

W. C. Strong, Brighton, near Boston, Mass. Supplementary Price List. In New Plants its motto seems "excelsior."

T. W. Elliott, St. Louis, Mo., (successor to John Sègerson & Bro.,) offers a General List.

Gardner Mendenhall, Richmond, Ind. Not only Fruits and Ornamentals, but also a fine collection of greenhouse and bedding plants.

Andrew Bridgeman's List of Bulbous Roots, 876 Broadway, N. Y. A full list of Hyacinths, with the colors of each fully described.

W. R. Prince & Co., Flushing, N. Y. Catalogues Nos. 1 to 16 embraces every thing desirable in the whole range of Horticulture. Fruits large and small, Grape Vines, Evergreen and Deciduous Trees and Shrubs, Vegetable and Flower Seeds, &c.

J. L. Darlington & Co., West Chester, Pa. Wholesale Price List—largely of Peach trees.

P. J. Berkmans, Augusta, Geo. Descriptive Catalogue. A very valuable one, the descriptions of Fruit being very minute, and the lists, especially of Peaches, quite extensive.

T. C. Maxwell & Bro., Geneva, N. Y. Wholesale Price List. Fruits, Stocks and Ornamental Trees.

R. Buist, Philadelphia. Rural Annual for gratuitous circulation, contains a large amount of very useful Horticultural information.

D. Landreth & Sons, Philadelphia, Pa.; St. Louis, Mo.; and Charleston, S. C. Rural Register contains, amongst other useful matter, a Calendar of operations of great value, also for gratuitous circulation.

J. H. Van Buren, Clarksville, Geo. A full List of Fruits adapted to that section.

Dr. Joseph Taylor, Newport, Ky. Wholesale Catalogue. A full list both of common and rare things.

Exercises at the Opening of the People's College, Havana, N. Y. Thanks to Col. Frost for his favor.—Glad to see him so much "mixed up" with it, as we feel the students will not, at any rate, be encouraged to forget Botany and Gardening.

C. W. Grant, Iona, near Peekskill, Westchester Co., N. Y. A Descriptive Catalogue of Grape Vines. This is really valuable on account of the information it contains as to the origin and distinctive character of the leading varieties of Grape Vines, particularly the new kinds. The typography is also remarkably well executed.

John W. Adams, Portland, Maine. Wholesale List of Native Evergreen and Deciduous Trees, Small Fruits, &c.

A. W. Corson, Plymouth Meeting, Montgomery County, Pa., Catalogue of Forest Trees, &c. Every one who wishes to see what is "in the country," should get this. Not even our best European nurseries have so complete a collection. Of Willows alone we count 33 species.

HEDGES IN THE SOUTH.

We notice in the *Houston Weekly Telegraph* (Texas) of October 6th, a very interesting letter on agricultural matters from Mr. Thomas Affleck. Mr. A. is well known as the pioneer of Horticulture in the extreme South-west; and for his superior knowledge and the energy with which it is both practised and disseminated for the benefit of others, is deservedly esteemed. We extract his remarks on hedges, which will very much interest our Southern readers:

"I am by no means wedded to this particular plant, the *Cherokee Rose*,* so called; but would be glad indeed to find another better adapted to the purpose. In the *double white microphylla* Rose, I think we have one equally as well, perhaps better, suited to the stiff black prairie lands, because equally hardy, well armed and impervious, yet not so rampant. For rich bottom lands I prefer the so-called *Chickasaw* Rose,† which resembles the Cherokee, but with smaller, closer evergreen foliage and less rampant habit. Upon the whole, however, the Cherokee may prove the safest, if the experience of hundreds running through a period of fifty years or more in South Carolina, Georgia, Mississippi, &c., goes for any thing, and especially considering the thousands of miles of thorough fence of this plant which exist. That it will suit equally well all soils and localities may well be doubted. For the low sea-coast prairie the *Gutsachet* or *Weesatchie* will, no doubt, prove to be the better hedging plant. For the thinner and poor upland prairies it is more than probable that the Osage Orange will be the best adapted. I had great confidence in the native *Cock's spur Hawthorn* until this season, when it has been almost entirely destroyed by a small insect of the Aphis family, which operates under the leaf, and which has been very destructive to the Quince trees. And from dread of this same insect, I say nothing of the *Pyracantha* thorn, though as yet no damage has been done. In Western Texas, the *Yucca* or Spanish bayonet, and the *Opuntia* or Prickly Pear, either separate or mixed together, in the end could, I feel confident, be made to form an impassable barrier. There is a small tree here, of the *Rhamnus* or Buckthorn family,§ called by some India-rubber tree, of which, too, good hedges could be made.

"In this, however, it is not a question of what skill or industry could or might do, but of what may be done economically and profitably. The plant which, when made into a hedge, *must* receive a certain and very considerable expenditure of labor *annually* to keep it in the form and serve the purpose of a fence, is of doubtful value here for that object. That some labor *ought to be* bestowed on a hedge of any kind, at least once a year, is sure.—But that plant will best serve our purposes, which will hold its own through a year of neglect, should circumstances compel its being neglected, and will still continue to form a good fence, and may again be brought into its proper form as a perfect hedge, so soon as circumstances will permit the bestowal of the labor needful. In the three roses named, I think we have these plants—Cherokee, Chickasaw, and white Microphylla."

[* *Rosa lævigata*. † Probably *R. lucida*. ‡ Probably *Mimosa strigillosa*. § Perhaps *Sageretia Michauxii*.—Ed.]

NEW PLANTS.

"Hooker's Botanical Magazine," describes the following new plants:

Rhododendron Vietchianum.—Probably the most beautiful of all the East Indian species. The flowers are five inches across, of a pure white, and beautifully crisped around the edges. It has something the appearance of an Azalea, resembling in this respect Rh. Gibsoni, now called by botanists R. formosum.

Dendrobium crepidatum.—Something in the way of D. Pierardii, but the flowers have a yellowish tinge. Probably from Eastern Bengal.

Doronicum Bourgæi.—An ornamental greenhouse plant, resembling a purple Cineraria, and may prove the parent of a new tribe of florists' flowers. Native of the Canary Islands.

Forsythia suspensa.—The common Golden Bell (F. viridissima) is now well known. The present species much resembles it, but has larger and darker yellow flowers, and the leaves have a great tendency to become trifoliate. This hardy shrub is from Japan.

Cirrhopetalum Cumminghii.—A small-growing epiphytal orchid from the Phillipine Islands. Its heads of pink and white flowers are borne on reddish stems some six inches long.

Rhododendron Thompsonii.—This is described as a charming species. The flowers are medium size, and of a very dark scarlet, and certainly very showy. From the Sikkim Himalayas.

Thunbergia Harrisii.—Not of so dark a color as T. laurifolia, but bloom in much larger clusters, and, apparently, more freely. It flowers in winter and early spring, and is a native of the East Indies.

Tydœa amabilis.—Tydœa picta, once Achimenes picta, is well known. This has also beautifully veined leaves, and spotted flowers, of a much darker scarlet than picta, and much more showy.

Burtonia scabra.—A very showy hard-wooded Australian plant, with narrow rosemary-like leaves, and flowers of the shape and appearance of Polygala oppositifolia.

Cœlogyne elata.—An orchidea from Nepal, with whitish flowers, but not particularly handsome.

New Dahlias.—The London Horticultural Society, September 2nd, from a large number of seedlings, awarded First-class Certificates to Keyne's *Golden Drop*, Dod's *Lady Hulse*, and Salter's *Egerie*.

New Rose, Noisette Triomphe de Rennes, is said to be superior to Isabella Gray.

Thundergia laurifolia.—In the notices of New Plants in our Specimen Number we expressed a fear that this beautiful species would be, like the others, a shy bloomer. Mr. Pollock, of this city, assures us, that he has a plant in full flower, and that he considers it a remarkably free bloomer.

Obituary.

Died, in this city, about the 1st November, Dr. Gavin Watson, formerly Secretary of the Penna. Horticultural Society, Member of the Academy of Natural Sciences, and an eminent Botanist.

We regret to announce the death of Mrs. Ann Bartram Carr, the last of the distinguished Bartram Botanists. Mrs. Carr inherited the fondness for Botany and Gardening for which her forefathers are so famous. So closely allied are these names with the history of American Botany and Horticulture, that a memoir of the lady will be read with much interest by our readers. We are gratified to announce that we have the promise of a notice from the pen of one of our esteemed Botanical friends, which will probably be ready for our next number.

Died, May '20, Dr. James Barnston, Professor of Botany in McGill College, Montreal, Canada. Dr. Barnston was a Fellow of the Royal Botanic Society of Edinburgh, Scotland, and ranked among the first botanists of the age. The past year has been particularly fatal to the votaries of Botany.

M. Henri Guillaume Galeotti, a distinguished Belgian Botanist, died in Brussels recently. He spent five years in Mexico and Central America, and was instrumental in introducing an immense number of new plants into European collections.

It is with sincere regret that we announce the death of David Townsend, of West Chester, Pennsylvania, which event took place at his residence in that borough, on Monday, the 6th of December. His age was 71 years. For the following facts in regard to his life we are indebted to the West Chester *Republican:*

"In the early years of his life he was actively engaged in various ways: and in 1817 was elected Cashier of the Bank of Chester County, which office he held until 1849, a period of 32 years, when ill health compelled him to resign the position, and he retired to a private residence on the border of the town where his time was occupied in beautifying the grounds around his dwelling. To his good taste and open-handed liberality the borough of West Chester is indebted for many of our most valuable improvements. He was a projector of the Chester County Cabinet of Natural Science, having been Secretary and Treasurer of it from the time it was organized until within the last few years of his life. In this institution he was known as one of the best of our botanists, his attainments in this beautiful science being such as to receive the compliment of having a new genus (*Townsendia*) named for him. This handsome tribute was the more valuable as it came unsolicited through the hands of Sir William Hooker, of Kew Gardens, England, one the most celebrated botanists of the age. No man has been taken from our midst who was so universally esteemed, and the intelligence of his death, although long expected has called forth a general expression of sorrow and regret."

Our friend, Dr. Darlington, (to whose kindness we are indebted for the above extract,) in a letter now before us, signifies his intention of preparing a fuller notice of his friend, Mr. Townsend, embracing an account of his services in the cause of science and the public good, which he very kindly offers to place at our disposal. It is not necessary for us to say that his offer will be most gladly accepted.

Questions and Answers.

Propagating Grapes, Roses, Cacti, &c.—Can Remontants and Climbing Roses be advantageously propagated from cuttings of ripe wood? If so, please give the *modus operandi*.

The details of propagating Grapes from eyes, cultivation of the Cactus and treatment through the whole year, and description of varieties.

Answers to the above will be interesting to many of your readers, and oblige H.

Waukesha, Wisconsin.

[Rose cuttings do not strike readily if *quite ripe;* that is, taken off in winter; but if chosen about the fall of the leaf, nothing is easier. Make the cutting of three or four eyes in length, cutting it off under an eye. Insert one-third of its length in any soil that will permit the water to pass freely away, and yet keep steadily moist,—gardeners use silver, or fine sand washed,—set them in full exposure to the light; the leaves being off, no bell-glass is necessary, and the sun at this season will be all in their favor.

Grape shoots of last year's growth—the strongest that can be had—are selected for propagating by eyes. Put the shoots in a warm, damp cellar, or other dark place, two or three weeks before wishing to use them. To prepare for planting, cut the shoots into sections, so that one eye is left to each shoot, and about half an inch of the shoot, both above and below the eye; some split these shoots vertically, but this is of no practical importance. When ready, get a pan or box of *well-drained* sandy soil; nearly fill with the earth; set on the eyes, buds uppermost, nearly touching each other, and cover so that the tops of the buds are barely visible above the soil. Then place in a heat of 60°, and they will grow freely.

The divisions or "varieties" of Cacti principally are into Epiphyllum, Cereus, Opuntia, Echinocactus, and Mammillaria. The first have generally flat, leafy stems; the second, upright, angular stems; the third, flat, thick, fleshy stems; the fourth, globular stems, or single heads, with rows of vertical ribs; and the fifth the same as the last, except the ribs are broken up into protuberances supporting the spines, which are called teats or *mammæ*.

Epiphyllums have the showiest flowers, and are most popular; they are easily raised from cuttings. Mr. Fetter's article in another column gives their mode of culture and treatment. All the other kinds require pretty much similar treatment. Our own practice is to pot in May into rich loam, pressing the soil firmly, and then plunge the pots into the open ground, "and leave the rest to nature," who waters and cares for them till October, or the return of frost, when they are housed, and are sparingly watered through the winter.]

MIGNIONETTE FOR WINDOWS.

Perceiving by your Specimen Number that your ideas are not above noticing window-gardening, and that you express your readiness to inform us on points we may lack knowledge of, I should be much obliged if you would give me some hints about the proper management of Mignionette to bloom in the house in winter. I can manage to bloom my plants, but the leaves mostly fall off, and the plants have a very miserable appearance. Mrs. J. B. R.

[The leaves may fall through the plants being kept too dry, or from the room being warm and dry, or from the attacks of Red Spider. Mignionette should be sown in well-drained pots or boxes, full one-third of the depth being filled with small stones or broken pots, and moss or some such material placed over to keep the soil from mixing through them. The soil should be very fresh, as old or sour soil is "distasteful," especially to this plant. It should be rather sandy than otherwise, and have a little well-decayed manure of any kind well mixed with the soil before sowing. After sowing, the pot or box should not be kept inside the room any more than can be helped till the plants are well up and strong, and even when in-

troduced inside the house, should have all the air possible in fine weather. A close, warm, dry air is very unfavorable. If the leaves appear with decayed spots on them, the Red Spider is probably at work, and for a few plants under a lady's fostering hand, no better way of getting rid of them could be suggested, than to sponge over and under the leaves occasionally with water in which flower of sulphur had been strewn. Spider or not, the Mignionette is a plant that will soon show gratitude for such attention in its vigorous growth. If the pots are well drained, and the plant growing freely, it will take a daily watering; but this can only be judged by observation,—whenever the soil is pale, it is probably dry, and should be watered.—Ed.]

Pines from Seeds and Cuttings.—I notice, with pleasure, that you propose to introduce a department of "*Inquiries and Answers*" into the "Monthly;" and as I am particularly interested in the following, I submit them for your consideration:

1st. What peculiar treatment is necessary for success in raising Evergreens, such as Pines, Cedars, Firs, Spruces, &c., from seed?

2nd. Can any of the above be grown from cuttings? and if so, in what manner should they be treated?

Truly yours, Geo. C. Merrifield.

[Pines, and most evergreens, grow naturally in climates possessing a moist atmosphere and free air; and in practice it is found that young seedlings cannot be raised successfully in a dry place. If we sow the seed early in spring, they usually grow as freely as Cabbage; but as soon as the dry days come, the moisture escapes too rapidly from the succulent stems, and, in gardeners' phrase, they "damp off." Where the *air* can be kept *regularly moist*, and yet free air be given, success is easy. A cold frame, set to a northern aspect, is an excellent place to raise Coniferæ in. In dry weather, the sash may be left nearly on, which will prevent the escape of moisture, giving air principally in moist weather. The boxes or pans should be well drained,—this is important. The seeds should not be sown too thickly together. The closer they are together, the more likely to damp. If these precautions are taken, Pines may be sown at any season of the year.

Evergreens are easily raised from cuttings. Pines, Firs and Spruces, strike best from the present season's growth, taken off just at the junction with the old wood, and when it is nearly ripe,—usually about the first week in August. Such wood in a slight heat will root in *three weeks*, and as certainly as Gooseberries. If no heat is at command, they will be well-rooted by spring. Of course, protect them from frost. Plants so raised, after they have made one year's growth, should be cut to the ground; they will then make good leaders, and be as good as seedlings. Cedars, Junipers, and broad-leaved evergreens may be put in all through the winter, if the pans can be protected from frost.]

Clematis flammula—F., Toledo, Ohio.—This plant is difficult to raise by the ordinary process. If the seed is good, which can readily be ascertained by examining with a pen-knife before sowing, it may be sown in a box and placed in a pit or frame, or under a greenhouse stage, where it can be kept regularly moist, and if in the "drip," so much the better. In February they will all be sprouted, and must then at once be brought up to the light. *They never germinate well in the light.*

We are under obligations to many friends for various favors, which we shall more fully acknowledge hereafter.

Mr. Walter Elder has our thanks for his very encouraging letter. And to Mr. Pantlen we are much indebted for a set of reliable foreign periodicals.

An article on "Thatching" has been kindly promised us by J. C. S.; and, to accompany which, we expect to have the illustrations ready for our next number.

Foreign Intelligence.

PHENOMENA OF GENERATION.

At the Royal Institute, London, recently, Prof. Huxley delivered a lecture on this subject. It was a discourse on what has been called Parthenogenesis or Agamogenesis; in other words, the reproduction of species without a union of sexes,—a phenomenon seen in aphides or plant-lice, as well as in a few other animals of low organization. There is, moreover, an Euphorbiaceous plant (*Coelebogyne ilicifolia*) at Kew Gardens, which annually produces fertile seeds, although the female organs only are present, and no plant having male flowers exists in the gardens; indeed, no male plant has ever yet been seen. Professor Owen has attempted to explain the phenomenon of Agamogenesis by asserting that some part of the primitive germ mass is retained unchanged throughout the succession of animals, and that this germ mass possesses a peculiar force by virtue of which it gives rise to independent organisms. Professor Huxley objects to this hypothesis, that it is at direct variance with the results of observation; and that if it were true, it does not explain the phenomena. It is better when we are ignorant to say so, rather than to retard the progress of inquiry by inventing baseless hypotheses that explain nothing.—*Practical Mechanic's Journal, London.*

STEAD'S PYRAMIDAL BOUQUET STAND.

This most ingenious contrivance,—the invention of Mr. Daniel Stead, of Huddersfield, England, and sold in London by Messrs. Henderson, of St. John's Wood, London,—is thus described in "Hibberd's Rustic Adornments of Homes of Taste:"—

"It consists of a pyramidal cylinder of metal, pierced with holes at uniform distances, and within it is another cylinder, fitting so as *nearly to touch* the outer one, and with just enough space between to receive the stalks of the flowers which are inserted in the holes. At the top of the outer cylinder is a tubular orifice, stopped with a small tube reaching to the bottom of the cylinder. The small tube is lifted out, and a little water poured into the central bore or tube, and then the small tube is again inserted, and a little water poured into that also. The flowers are then inserted according to the fancy of the decorator, and as each flower has but an inch stem, they sit close to the outer cylinder, touching the inner one, and by the process of capillary attraction, get from it just enough moisture, without being actually wet, as serves to sustain their freshness of color and odor for a considerable length of time. With the addition of a glass shade over it, the lower edge of which is immersed in water, most flowers will keep near a month. Nothing can be more simple in use though so thoroughly philosophical in construction, as this Bouquet Stand."

DESTRUCTION OF INSECTS.

A patent has been applied for in England for a mode of destroying insects on turnips and other plants, by brushes, which revolve on an axle and deposit them in a cell or trough filled with a glutinous composition.

This reminds us of the old way of getting rid of the mealy bug, by immersing the plant in a solution of glue. Speaking of mealy bugs, cannot some of our distinguished entomologists invent *some* feasible way of exterminating them? Any one who can accomplish this, "deserves well of his country." Should any of our entomologists require some adult specimens to experiment on, Horticulturists can supply them at short notice.

THE FRENCH SOCIETY OF ACCLIMATISATION.

In 1854 the Society purchased half of the only herd of yaks which had been imported into Europe, and this animal has been, by its means, successfully acclimatised. In 1855 the Society distributed several hundred thousand bulbs of the yam, which is now largely cultivated, and which, it is hoped, may ultimately be a successful rival to the potato. The cultivation of the *Sorghum saccharatum* has been largely promoted by means of the Society's efforts. This now furnishes to the central and southern districts of France a very excellent and abundant food for cattle; and it is hoped that, owing to the sweetness and purity of its juice, it will afford to the southern provinces a source of profit equal to that which the cultivation of beet-root has afforded to those of the north. The Society has become possessed of a large number of young plants of the loza, a kind of buckthorn, from which is extracted the beautiful Chinese green, and which is found to resist even the severest winters known in Paris. Two flocks of the Angora goat, so remarkable for the fineness of its hair, have been imported, and these animals are found to increase in numbers each year, without showing any sign of degeneracy in the breed. Not only has this Society succeeded in acclimatising that species of silkworm which feeds on the castor-oil plant, but it has also been able to modify the food of these worms, and to substitute the leaf of the common teasel for that of the castor-oil plant, which is difficult to cultivate in France; and the regulation of the time of hatching has been so far effected, as to make the production of the worm itself almost contemporaneous with that of the leaf on which it feeds. By the assistance of a large number of French missionaries the propagation in the open air of another species of silkworm, which feeds on oak-leaves, has almost been effected. Two new kinds of the Chinese oak are now growing in the nursery gardens at the Jardin des Plantes. The white Chinese nettle, from which it is said that fabrics of a stronger and more glossy character than those made from ordinary flax and hemp may be manufactured, is now being cultivated under the auspices of the Society. The cultivation of a species of pea, which produces oil in great abundance, and is found to be an excellent article of food, is very largely promoted by the Society, which has, moreover, received living specimens of the trees known as the wax-tree and the varnish-tree, with the insects that inhabit them. With the view of restoring the fine qualities of the potato, which have been, to a great extent, lost by too extensive cultivation in Europe and by disease, the Society has imported a large number of roots taken from the sides of the Cordillera Mountains. A piece of land in the Bois de Boulogne has been granted by the city of Paris to this Society, with the view of establishing zoological and botanical gardens, in which may be acclimatised foreign animals and vegetables, that may produce articles either of utility or luxury.—The expenses are to be borne by a company, which is in course of formation.—*Practical Mechanic's Journal, London.*

GAS IN THE COUNTRY.

A very important improvement has recently been made in England in the construction of portable gas-works for domestic use. It consists in the mode of charging and emptying the retorts, which is effected by an endless Archimedean screw, which revolves in a hopper previously filled with bituminous coal, and which gradually conveys the coal through the retort until it is decomposed, and then, by the same screw, is discharged in the form of coke at the other end of the retort. The hydraulic main is also arranged so that it answers the purpose of purifyer, cooler, condenser, and all. We consider this invention of so much importance, that we have written to the inventor for further information as to its cost, &c. When coal can be furnished at about $5 per ton, the gas will cost about $1.00 per 1000 feet.

[From the Hamburger Garten und Blumenzeitung.]

STRIKING CUTTINGS IN SPHAGNUM.

For some time past, *Sphagnum* has been used in Holland, instead of earth or sand, for the purpose of striking cuttings, and up to this time we have heard of scarcely a single failure, and its success has been most complete. The best kind of Sphagnum for the purpose is the *acutifolium*. It is much preferable to any other on account of its being more tender. The sphagnum should be well dried and reduced to powder by rubbing it between the hands. Fill the cuttings pots or boxes with it, and after watering it well, insert the cuttings. It dries less quickly than earth or sand, and preserves an uniform humidity, and the callus and root fibres are developed more rapidly. Plants, such as *Artocarpus, Dillenia, Aralia, Myristica, Quassia*, &c., that usually require to root in sand several months, only require three or four weeks in *sphagnum*.

Sphagnum is a coarse kind of moss, of which several species grow abundantly in our swamps, and is that usually employed by nurserymen for packing.

Chandler & Sons.—The old and highly-respectable firm of Chandler & Sons, Vauxhall, London, the celebrated Camellia-growers, after a business experience of sixty years, has retired from business, and is succeeded by Messrs. Milne, Arnott & Co.

Mowing Machines.—A Committee of the London Horticultural Society has decided that Green's Patent Lawn Mowers, manufactured at Leeds, in Yorkshire, are superior to all others in lightness of draught, amount and quality of work, and in durability. The *Gardener's Chronicle* also says that the grass in the arboretum and elsewhere at Chiswick, is in excellent condition. It is kept in order by means of one of Green's Two-feet Mowing Machines, which does its work very satisfactorily, and, compared with the scythe, effects a saving of at least one-half. Swift's Mower, made at New York, is, no doubt, just as good.

Rustic Adornments for Homes of Taste, is the title of a work by Shirley Hibberd, and published by Groombridge & Sons, No. 5 Paternoster Row, London. Price 14 shillings. Elegantly Illustrated. It is also advertised by some of our booksellers.

Tests of Merit.—The Premiums at the Exhibitions of Rabbits in England are awarded in proportion to the *length of the ears*. If *featherless bipeds* were judged by the same criterion, the competition would be strong and close.

Plant for a Dry Soil.—Achillea Millefolium, the common Yarrow, it is said, will stay green where all other herbage dries up. Those who do not object to white clover, or any thing but pure grass in their lawns, would find an advantage in employing it.

Fine Currants.—The following is reported of some currants exhibited before the Lon. Pomol. Society by Mr. Paul. Three of them are already introduced here, and it will be interesting to know all that is said of them:

The Raby Castle Red.—A variety so generally well-known and esteemed as to require no comment or description.

Long Grape.—Also well-known as a large and useful, long-bunched, and large-berried variety, rather pale in color.

Brown's Seedling.—A very distinct, but little-known variety, having a long bunch; berries large and full colored; flesh more solid than the *Old Dutch*; flavor, very peculiar, having a slight smack of the *Black Currant*. It was considered likely to be valuable for culinary purposes.

Versailles Red.—A new kind, very little known, but promising remarkable characteristics, the fruit being deep crimson in color, bunches rather short, berries very large and transparent, and remarkably regular in size; the flavor was good, and, altogether, it was considered a very showy kind for dessert.

The Sikkim Rhododendrons have, for the most part, proved hardy in England.

Superior Roses.—At the late Grand National Rose Show, held in London July 1st, the best twenty-four embraced the following list:

Madame de Cambeceres (large, deep rose), *Caroline de Sansal* (light flesh, fine), *Duchess of Norfolk* (dark), *La Fontaine* (rosy red, and one of the very best), *Souvenir de Leveson Gower* (a charming deep-red rose), *William Griffith* (a favorite), *Devoniensis* (ditto), *Prince Leon* (a rosy crimson), *Eugene Desgaches* (Tea, large pale rose), *Boula de Nanteuil* (one of the best of the old dark French or Gallic Roses), *Madame Andry* (another charming light crimson), *Louis Perrony* (an universal favorite), *Jules Margottin* (a splendid flower, of a glossy pink color), *Lælia* (the largest Rose ever exhibited, a rich rose-color), *Lord Raglan* (one of the very finest, and very dark), *Souvenir d'un Ami* (Tea, a favorite with all growers), *Gloire de Dijon* (one of the best of the Tea Roses, a fine light buff), *Docteur Leprestre* (a Bourbon, another splendid crimson), *Madame Vidot* (one of the finest-shaped among the Hybrid Perpetuals, and a match Rose to *Madam Rivers*), *Victor de Trouillard* (purplish crimson, fine), *Souvenir de la Reine* (carmine), *Cloth of Gold*, and *Alexandrine Bachmetoff*) a splendid deep-colored Rose).

Mice and Rats.—Mr. Glenny says:—Mice and rats are very easily destroyed if we set about it in earnest. Get live plaster of Paris and flour, mix them dry in equal quantities, lay it in dry places, and sprinkle a little sugar amongst it. Both rats and mice eat ravenously, the plaster sets firm directly after it is moistened, becomes a lump inside them, and kills to a certainty.

Large Camellia.—A correspondent of the *Church Journal*, New York, in Portugal, describes a Camellia near Cintra, of immense size, capable, he says, of shading two hundred persons!

Mildew in the Gooseberry.—Professor Berkley, the great cryptogamic Botanist, says of the gooseberry mildew:—"Our American friends should take a lesson from the grape mildew in behalf of their gooseberries. As the disease in its first stage, like the grape mildew, is an *Oidium*, there is every reason to believe that the same treatment will have similar results, and as sulphur (at least sublimed sulphur) properly applied, is a sure remedy in the one case, we have no doubt about about its efficacy in the other.—We have in Great Britain an allied Fungus which attacks gooseberries. It seldom, however, does any material injury, and never assumes the dense matted form of the *Sphærotheca*.

We have before us the numbers of the "Illustrirte Garten Zeitung," published in Stutgart, from January to September, too late, however, to translate for this number some of the very useful matter it contains.—We give, however, the following brief account of the novelties described in them:—

Eucharis Amazonica. A fine plant of the Pancratium family, from New Grenada. The flowers are in clusters, of a pure white, and near three inches across. Stove plant.

Lyscimachia nutans. Very different in appearance from the forms of "Moneywort" in cultivation with us. This is an erect growing species, bearing spikes of crimson flowers three inches in length. Probably hardy.

Queen of Verbenas. (Reine des Vervaines.) The most beautiful ever raised. Truss four inches across. Each flower as perfectly round as a Phlox Drummondii. The body of the flower is a delicate pink, and there is a margin of white all around the edges.

Horse-shoe Geranium. (The French term *Zonale* is very appropriate.) *Henriette Lebois.* Remarkably pretty. Flowers white, with a fine scarlet eye.

Fuchsias cheiranthiflora; as "Double as a Rose;" *tricoler* has a scarlet *tube*, a white *corolla*, and blue *petals; Madame Miellez*, resembling "Venus de medici," but nearly double the size.

Gentiana Fortuni is said to be the handsomest of the 153 species described.

Fuchsia corallina, now common, is said to make one of the best conservatory plants for training to pillars.

Peach Houses, now popular in England, they find well adapted also for forcing Asparagus, Seakale and Rhubarb, at the same time.

Dahlia Prizes.—At the National Dahlia Show in London, September 24th, $500 were awarded in premiums. Premiums are heavy in England. At a local Horticultural Show, (Brighton and Sussex,) September 15th, $1500 were offered.

The Earliest Strawberry with the English is the May Queen.

The Chinese Yam, Dr. Lindley says, has proved extremely valuable in England, and its culture will extend. It is said that the female has been received in France, and hopes are entertained of improvement from seedlings.

The "Deutches Magazin," published, in Stutgart, amongst other beautiful illustrations, has a plate of the new Fuchsia *Prince Frederick William*, which is truly a flower of "magnificent proportions" and fine rich color.

New Apples.—"Webb's Kitchen Russet" is spoken highly of in England as one of the best for long keeping. The "Stamford Pippin" is also recommended as a good table fruit, keeping till March or Arpril.

Pears.—Huyshes Bergamot and Huyshes Victoria are also much valued as superior new Pears.

The Kaisha Apricot, the London Pomological Society pronounced "mealy and pasty, and inferior to the Moorpark." Dr. Lindley, and some of the best English gardeners, think a few more such decisions will shake confidence in the judgment of the Society.

Deodar Cedar Cones have been produced perfect on a tree in Devonshire.

Tritoma (*Kniphofia*) uvaria the *Gardener's Chronicle* pronounces to be the most beautiful hardy perennial seen in a visit to Kew Gardens.

Prunus triloba, one of the handsomest hardy plants seen in the north of China by Mr. Fortune, is now advertised for sale in England.

The Leaf Blight in the Pear, Mr. Berkely, in the *Gardener's Chronicle*, still thinks, is caused by a minute fungus.

The Pampas Grass.—The male variety is said to be very inferior in beauty to the female.

The Flore des Serres of M. Van Houtte is to appear, in future, with more regularity than it has lately done.

The One-Boiler System of Mr. Weeks, of London, is to be applied to the heating of the whole of M. Van Houtte's immense glass establishment.

A Weeping Holly has been produced in England. This will be a valuable plant to introduce south of Philadelphia.

The Oscar Strawberry, highly recommended by the London Fruit Committee of the Horticultural Society as a fine new kind, is to be sent out next season.

Botanical Collector for S. Africa.—Dr. Pappe has been appointed by the Colonial Government of the Cape of Good Hope to this office, with the liberal salary of £400 per year. We may look for novelties from this quarter.

Second Growth of Potatoes. — Potatoes that make a second growth of tuber, never boil well.—Mr. Cuthill, a well-known English grower, recommends to cut off the vines, if, after a spell of dry weather sufficient to nearly ripen them, a rain would likely make the tubers sprout again.

Black Tartarian Cherry and B. Circassian are considered synonymous by all our Pomologists. The London Pomological Society has decided that they are distinct. They describe the Black Circassian as obtuse, or bluntly ovate, and very wide at the stalk end; the Black Tartarian as more slender and tapering in shape, and smaller in size.

A new plant house has just been completed in the Edinburg Botanic Garden, at an expense of £6000 sterling.

Selling Soils.—In London there are establishments for the sale of silver sand and peat for gardeners' use. It would often be an accommodation to our gardeners to be able to purchase these articles in small quantities.

It is a very common opinion that neither Birch nor Beech trees are liable to be struck by lightning. Mr. McNab, of the Edinburg Botanic Society, stated recently that he had made extensive inquiry concerning the matter, and had never heard of an instance.

Rhododendrons.—When Dr. Hooker explored the Sikkim Himalaya, he discovered there forty-three species of Rhododendrons, thirty of which were considered new. Mr. Booth visited shortly after the adjacent mountains of Bootan, and added sixteen to the number of novelties. The mountains of the East Indies seem very prolific in these beautiful plants.

New Vegetable.—"Turner's Cottager's Kale," Dr. Lindley pronounces new and invaluable, being unsurpassed for sweetness and tenderness.

Jasminum grandiflorum the English consider one of their best winter-blooming plants.

Pears for Exhibition are produced in France of an immense size, by budding a *flower-bud* of any desired kind into a strong-growing barren shoot of some other tree. They call it "greffes de boutons a fruit."

Grafting Oranges.—The same ingenious cultivators strike Oranges from leaves, and afterwards graft a scion on the rooted leaf stalk.

To Choose Hyacinths.—Buy before October.—Choose hard, solid roots, with sound bottoms, and those which have not sprouted much. They should be rather flat to be superior. Extra size is no criterion.

Orchard House Pears.—Dwarf Pears are extensively grown in pots for orchard house culture in England.

Vitality of Seeds.—The idea is prevalent that some seeds will keep good a long time. The *Ag. Gazette* gives the result of some experiments. The first figure shows the number sown, and the second the number that grew. All three year old seed:—Parsley, 130—42; Carraway, 600—2; Parsnip, 300—20; Carrot, 300—79; Stocks, 600—236; Candy tuft, 100—11; Rape, 450—323; Turnip, 900—325; Cabbage, 150—11.

Stock for Roses.—The "Descartes" is extensively employed in England.

Spiræa grandiflora flowers in April and May in large spikes of a beautiful white, and these are uninjured by frost.

The New Holland Pitcher Plant, Cephalotus follicularis, has been found by Mr. Bain to strike readily from root cuttings.

Foreign Correspondence.

From our Regular Correspondent.

Royal Botanic Garden, Kew, London.

The British Pomological Society held a meeting in St. James' Hall on Thursday, October 28th, R. Hogg, Esq., as Chairman.

The display of Fruit was very fine and numerous, and, in most cases, accompanied by filled forms, with information of situation and circumstances of growth, &c. The Muscat Hamburg Grape was sent by Mr. Henderson, of the Pine Apple Nurseries, London, grown in a greenhouse without fire-heat. This is an excellent new white grape, having a Muscat flavor. The size of the berries and bunches are similar to the Hamburg; hence its name. It is equally free and hardy. Out-door Grapes were unusually fine and well ripened. Several seedling Pears and Apples were sent, none of which appeared to possess superior merit to sorts already in general cultivation.

The same Society held a meeting on Thursday, October 7th, at St. James' Hall, Robert Hogg, Esq., Vice-President, (and author of "British Pomology," "The Vegetable Kingdom," &c., and co-editor of the "Cottage Gardener,") in the Chair.

The object of the Society is to judge and report on the merit of Fruit, a duty faithfully carried out by the energetic perseverance of the intelligent Committee and Officers of the Society, who have done much to discard the inferior Fruits from cultivation, and introduce only such varieties as possess merit.—The meeting was well attended, and the display of Fruit magnificent, accompanied with numerous carefully filled up forms, in response to the advertisement that information should accompany the specimens, of the locality, soil, situation, stocks, &c.—Desert Apples and Pears were very numerous and fine, for which extra prizes were awarded. A new seedling Pear was brought by F. J. Graham, Esq. F.L.S., called Graham's Bergamot. It was reported the most delicious seedling Pear ever brought under the notice of the Society; of medium size; texture melting, juicy; flavor rich, aromatic and sugary; tree upright, habit of growth very hardy, and free from canker.

Mr. Rivers, Nurseryman, Sawbridgeworth, Herts, produced a dish of Belle Agatha Cherries in good condition, remarkable for possessing the rare merit of a good sweet fruit in the month of October. Mr. Veitch, Nurseryman, of Exeter, sent three varieties of sweet kernelled Syrian Peaches, and three do. do. Nectarines, none of which possess sufficient merit to render them worthy of cultivation, all being clingstones, and ripening too late for this climate. This is the first season of their producing Fruit. It was thought they might become the parents of useful late varieties. Seedlings from clingstones frequently prove melting.

The Entrance Fee of the Society is ten shillings, and annual subscription ten shillings.

Crystal Palace Chrysanthemum Show was held in the Palace on Saturday and Monday, the 6th and 8th of November. The display was very fine. So large a quantity of this very useful plant was never before brought together. The large flowering varieties were first-rate. The Pompones were not quite up to the mark, which I attribute to the earliness of the meeting. If held ten days later, they would have been in better condition. The plants, on the whole, were well grown, clean, healthy, and neatly trained in an upright direction. I am glad to observe the Crystal Palace gardeners have shown so much good taste in departing from the unnatural system of pegging and twisting, so much practised by growers of late. Three very tasteful designs in Cut Flowers were shown, one of which represented a model of the Crystal Palace, the flowers intermixed with evergreen sprigs of Conifers, neatly executed, which attracted much attention. Cut Flowers were very fine and abundant, dressed to the height of perfection, every petal arranged to almost geometrical preciseness. One exhibitor, Mr. Salter, Nurseryman, Hammersmith, London, sent over seventy kinds of Pompones. They were cut flowers in bunches, and not for exhibition.

Appended is a list of a few new ones, from amongst the Chrysanthemums of the present season, all of which possess rare merit:

Large Flowering ones.—Golden Queen of England, clear canary yellow; Prince Albert, large growing crimson; Vesuvius, fiery red; Mad. Elizabeth Porsins, good large white; Glory, large lilac; Jardin des Plantes, bright golden yellow; Golconda, very large yellow; Rufus, bright salmon red; Excelsior, dark chestnut.

Pompones.—Mrs. Dix, mottled rose of good form; Miss Julia, dark chestnut red; Miss Talfourd, light sulphur.

Stoke Newington Chrysanthemum Exhibition came off on Tuesday and Wednesday last, the 9th and 10th of November. The place has long been celebrated for its Chrysanthemum Show. Unfortunately some misunderstanding occurred amongst the subscribers last season; the consequence is, they have divided themselves into two parties, and each party have their own Show. This was the old Society, and its Twelfth Annual Exhibition. There was a fine display of both well-grown Plants and Cut Flowers.—The latter had a charming appearance after undergoing the process of dressing, as it is termed; that is, having any superfluous petals cut out and arranged, which system is freely tolerated and practised; but I am inclined to view it as an innovation upon skilful gardening,—a badly-grown flower, in the hands of a good manipulator, will sometimes make a better show bloom than one well grown.

The Metropolitan Gardens, that have hitherto presented a dirty and neglected appearance at this dreary season of the year, are now enlivened in every remote corner with that most charming of autumn flowers, the Chrysanthemum. Its free, symmetrical habit of growth and abundance of flowers cannot fail to command the admiration and attention of all true lovers of nature and beauty.

I am not aware of any class of plants affording greater scope for the display of taste and and ability to either the professional gardener or amateur. Well is this appreciated and carried out by some few. I instance such a gala of beauty as that made by Mr. Broom, of the Temple Gardens, London, who has done much to brighten the courts and squares by his advice and example in the gardens under his care, where he has prepared a rich treat for all who visit the place, in the shape of Ribbon Beds, banks of veritable flowers; standards, with stems three feet high and heads two feet over; and specimen plants several feet in height and diameter; displaying many hundreds of fine flowers on each plant.

New Books.—"Cotton Cultivation in Texas," by King & Co. A Lecture delivered by William de Cordover at the Town Hall, Manchester. His object is to describe the value of Texas as a cotton-growing country and a good field for emigration. He asserts that one-fifth of the Cotton grown in Texas is the produce of German labor, and that the State containg over ten millions of acres of land capable of growing one bale to the acre. He also says that a species of Tea, Pepper and Vanilla Bean, are grown in the State.

Dr. Lang has published his papers on the Potato Culture, Production and Disease, which received the prize of the Royal Agricultural Society. He asserts the disease to be a species of Fungus, and condemns all rank manures. He advocates lime and soot as a preventative, and growing only early varieties. The papers are well written, and contain much valuable information.

"Descriptive Botany," by Professor Lindley, F.R.S. A small work on the art of describing plants correctly in scientific language. A valuable work for the student of Botany.

Messrs. Steele, Nurserymen, Richmond, Surry, has taken out a patent for a new boiler for heating horticultural buildings, churches, &c. So far, it promises

to answer its purpose well. A larger surface is exposed to the action of the fire with less fuel than any other boiler with which I am acquainted.

New and Rare Plants.—Ouverandra Bermeriana, or Bermeres, Lattice leaf plant, Nat. Order Junca-gineæ. Supposed by some to be a variety of O. fenestralis. It is found growing along with that very interesting specie in the Lakes of Madagascar. The leaves are much longer and narrower in proportion. The parenchyma nearly closes the areoles; venules stout, erect; flower spikes four or five in number; fascles slender; flowers distant on the rachis; pale rose-color, changing to green.

Nepenthes villosa. This magnificent Pitcher plant was introduced into this country from the mountains near Sarawack by Mr. Lobb. The ascidia, or pitchers, are more than twelve inches long. It is by far the most noble of this interesting genus, superior to all others in size and color. The curious broad margins at the sides of the elongated mouth resemble the gills of a fish in structure, and very similar in color.

Plocostemma Lasianthum. Nat. Order Asclepideæ. A climbing stove shrub, imported from Borneo by Messrs. Lows, Nurserymen, Clapton, near London. The foliage and stem dark green, glaborous, of robust habit, producing its flowers in pendant racemes of a tawny orange.

Thunbergia Natalensis. Nat. Order Acanthaceæ. From Natal. The habit of this plant differs from most of the genus, being of a dwarf, shrubby, erect growth, two feet high; flowers two inches long, curved upwards, yellow.

Nœgelia multiflora. Nat. Order Gesneriaceæ.—Very much resembling Gesuera Zebrina in habit of growth. Flowers tubular, one inch long, white. It is well worthy a place in every collection of stove plants. Grown by the side of G. Zebrina, the beautiful orange scarlet of the latter contrasts well with the white of the former; a color scarce amongst this tribe. A native of the Eastern Cordillera of Oaxaca, from two to three thousand feet above the level of the sea.

[Our Correspondent's letter arrived just as we were going to press, and in order to get it in this month, we have had to omit several very interesting items of news, and condense much of what is actually given, which, under the circumstances, we are sure our correspondent will excuse.—Ed.]

From our Regular Correspondent.

Cannon Hall, Fir Vale, near Sheffield, England, *November 11th*, 1858.

Taking a retrospective view of the year which is now fast waning away, and regarding it in connection with the Horticultural world and its doings, we see much reason for congratulation, that, in this age of progress and improvement, the Horticultural and Floricultural world is not stationary, but is spreading and extending in a ratio quite unprecedented; and this fact inspires us with much hope for the future of Horticulture. We have no hesitation in saying that, notwithstanding the unusual depression of trade which has been fearfully experienced this year, there have been more glass houses erected, more gardens laid out ornamentally, more societies and shows for exhibition of Fruits, Flowers, and Vegetables, this than during any former year. We do not attach *all* importance to the fact of vast and extensive gardens being called into existence, and beauty multiplied by the acre, as the only indication of the extension of gardening. We rejoice to see these noble indications of Flora's footsteps, and are not afraid of seeing too many of such; still we feel doubly gratified to observe gardening becoming a favorite recreation with the people of this country. The rich and the great have long had their well-kept conservatories and their ornamented gardens, and have revelled in pleasures which seemed destined for them alone; nevertheless, the love of the beautiful is implanted in the nature of countless thousands of the human family who are now, more than ever, surrounding their homes with those sweet, calm, quiet beauties—fresh from the teeming hands of Nature—which must add double attractiveness to the sweetest spot on earth, and afford a fund of elevating and rational enjoyment to home. In the very many *new*, trim, and neatly ornamented gardens we see springing up around us, in the hundreds of small greenhouses and other Floricultural erections, we see the growing taste, and the small beginnings that will lead to mighty results; we see children taught to appreciate these treasures; and we know a mighty harvest is in the future. This pleasing change is not confined to the middle classes exclusively,—the industrial, working classes, now form a vast army, who are not only pleased, but profited, by their growing fancy for the quiet gratification resulting from innocent exercise and well-spent hours.

Horticultural and Floricultural exhibitions are no longer the dull, tame, scar institutions they once were; we now find them associated with rank, title, taste and real worth, visited by the most beautiful and accomplished of the fair sex, and patronized by the fashionable world who can find time to leave the excitement of London life to visit "Chiswick" or the "Crystal Palace,"—indeed these Floricultural fêtes are now an important part of the attractions of the metropolis. These fine Exhibitions of Fruits and Flowers are not now confined to that locality alone, but may be found pretty commonly dispersed throughout the country. At these competitions we find plenty of evidence that good gardening is now more general than formerly, and their establishment is productive of very much good. In many towns and villages there are exhibitions; in some cases confined to one particular class of plants: sometimes the culinary part of the vegetable creation is drawn out for show; at other times Dahlias, Tulips and Roses, are the subjects chosen; while even at this advanced season of the year we have Red Cabbage and Celery shows in abundance. Chrysanthemums, many of which are very fine—are, from the cheapness and ease with which they are propagated and cultivated, much in request. We have many instances of workmen employed at a certain kind of work, or those engaged at one establishment, forming exhibitions and competing with each other, to the mutual advantage of all parties concerned, who, although at times disappointed in losing much coveted prizes, yet find their leisure time pleasantly, and very often profitably, bestowed. And we have at times seen some of the very finest Vegetables and Florists' Flowers produced by these men. We hope to see the time when every village shall have its Floral fête. We shall, from time to time, notice some of the extra fine Fruits, Flowers and Vegetables, both old and new kinds which are shown, and hope to be able to do justice to those varieties really deserving of public patronage.

This summer has been the driest for many years, and we had fondly hoped that the absence of any very considerable amount of water in the atmosphere might possibly obliterate the Potato disease. We regret to have to state that it has again made its appearance,—not so extensively destructive as on former visitations, but manifestly present, more particularly in the late varieties, or to those growing on wet or ill-drained land. We have seen but a trace of the disease in the early crops, and always noticed such symptoms immediately after rain with close, warm weather. From many microscopic observations, we are led to suppose that the cause of the Potato murrain is owing to a Fungus of rapid and destructive growth, which, under favorable circumstances, is carried, like a pestilential wind, across the Potato plantations, where the work of destruction is consummated. On no other supposition can we reconcile the sudden change from vigorous health, in a few hours, to sudden blight. The Potato which has resisted the disease with us hitherto, better than any other, is known by the name of "*Hagues Kidney.*" It is in form something like a very good variety called the "Lapstone" Kidney. It ripens early, and is a first-class Potato when not spoiled by cooking. It is extremely firm in substance, very clean in its skin, is a productive cropper, and not over incumbered with foliage, and is good for table until February. Potatoes are selling cheap this year, probably in consequence of flour being low, and the crop above the average of the last few seasons.

The yield of Fruit has been, on the whole, *good*.—Apples, Pears and Plums have been, pretty generally, heavy crops. The same may be said of Peaches, Nectarines and Apricots, and other wall fruit, which are ripening their wood in fine order and in good time, promising well for next year's supply. Pine Apples, Grapes and Melons have been produced this season of first class excellence, both for size, color and flavor. At several of the Provincial Exhibitions many fine samples were produced, principally of the old established varieties. We have not seen any thing new in the Fruit department manifesting extraordinary improvement. Strawberries have been good in flavor. "Keene's Seedling," "Elton Pine," and the "Black Prince," are favorites with many of the connoiseurs; while most of the larger varieties are not without their admirers. We have seen a good dark Rhubarb, called "Crimson perfection," which is an *improvement* on any other sort we have yet seen. It not only looks well when cooked, (having the appearance of "*Cherries,*") but it is less acid than any other sort we know of; for early table, or forcing for market, it is indispensable. We have seen *many*, and tried some of the *many* new Peas of late introduction, and we regret to say we are not able to find so much improvement as we should wish over some of the old-established varieties we could name. Of the new Peas, perhaps "Harrison's Glory" has proved itself one of the best, and probably will become a favorite. We have found it a good cropper, well flavored, and growing to a medium height.

In Stove-plants we have many, not only new, but good and distinct varieties. Some of these we will at times introduce to the notice of your readers, and shall express our views pretty freely on their merits or defects, as the case may be. Amongst the "Gloxinias," several very fine new sorts have been added; some good ones in the "*pendant*" bloomers, which are held as the most beautiful and most graceful by some, while others prefer the upright habit,—to this class many of exquisite beauty, rich coloring and fine form have put forth a claim of no meagre pretension, and as they have the advantage of showing their beauties, they must become general favorites. The improvement made in this class of plant during the last few years is truly astonishing. We remember when there was only some five or six; and although they were pretty in form, and the foliage large and glossy, and altogether pretty, they were not striking in color, being mostly selfs, or all one color, and that not of the brightest tint; but now the colors are brilliant, beautifully blended, shaded and spotted in the most artistic and chaste manner possible. We have the leaves of some beautifully variegated, while the flowers retain their charming appearance. In one variety the leaf is painted nearly as beautifully as an "*Anæctochylus,*" and when well grown in a moist, warm stove, it forms a very attractive object. This variety is named "G. argyrostigma." When in flower, it may be removed into a drawing-room, and if protected by a bell glass, will continue for several weeks in perfection. Achimenes, another class of plants, (which are rapidly becoming favorites,) are greatly improved, and many good varieties have been added to their number. When well grown and judiciously arranged, they form the most unique blaze of beauty that can be brought together for Stove or Hothouse decoration in the summer time. We have now the following colors: White, White veined with carmine or pink, Rose, Red, Blue, Crimson, Purple, Orange spotted, and I believe I may now add Scarlet, it being a charming new kind called "Meteor."

"Tydæas" are a class of plant likely to become generally cultivated. There are several varieties now out, some of which are very nearly alike, both in flower and foliage. We will enumerate some of these most worthy and distinct, according to our own experience and observation. "*Tydæa Eckhanlii*" is a very free grower, having a dark, rich leaf, much like "Achimenes picta gigantica." The flowers are produced in pairs, rising from the axilis of the leaf on

footstalks three or four inches long. The flowers are about an inch across, being of a clear rosy red color, the throat being yellow. The flowers are rendered doubly attractive and pleasing by three or four rows of small but striking dark maroon spots, arranged in rows on each petal. It is a winter bloomer, but it is not confined to the winter season, for we have had it in bloom constantly for the last five months, with the promise of a long continuation through the winter.

"*Tydæa Arlogesii*" is a very strong grower, getting three or four feet high in a few months time. It should be rested and pinched for pot room, as it is rather shy at blooming. The flowers are larger than the former, of a bright orange red, fine form and freely spotted with rows of dark maroon, approaching black, a very fine variety.

"*Tydæa Amabile*" is of dwarf habit; very distinct from the above; flowers most freely; of a delicate rose color, beautifully marked. This is a chaste and very desirable plant either for summer or winter use.

In Greenhouse plants we have many new things worthy of notice; so many, indeed, that we must leave them to other notices. Much might be said in favor of some of the new "*Fuchsias*," "*Azaleas*," "*Geraniums*," and the like. We will briefly advert to the "*Petunius*." These have been wonderfully improved of late, and the number of really distinct and worthy varieties are creditable to the perseverance of the raisers of these plants. From the length of time they keep in bloom, and the many fine and attractive colors now found in this class, they are becoming very great favorites, not only with gardeners, but also with amateurs.

Amongst the most profuse bloomers and most distinct colors we would enumerate "*Countess of Ellesmere*," a compact flower of bright rose color, with white centre. "*Inimitable*" — white ground color, good size, fine form, blotched throughout with large irregular blotches of blueish purple, which are well brought out by the white ground, and makes this a very charming variety. "*Hermione*"— very large, of a French white ground, clouded, or marked with fleecy markings of blue, approaching to purple. The flowers are of light texture, only fit for pot culture, but very beautiful for greenhouse decoration. "*Little Nell*" is a charming beauty, of a light ground, beautifully pencilled in all the ramification of the veins, with a rich crimson network, which gives the flower a very bright appearance. This is the best we have seen of this class. There are many others worthy of notice.—Some of the pure rose-colored ones are very pretty, either for in-doors or out. Some edged with green are very curious. Some of those having a blue ground color, and striped with white, are worthy of cultivation. And "Exquisite," a white one, is a capital bedder-out. But we have now the double "*Petunias*," which are creating a sensation amongst florists. We have seen some of these as double, and nearly as large, as an ordinary sized Dahlia. They are scented, too; more particularly the double white, which has a pleasant odor. Perhaps the two best out are "*Antigone*" and "*General Havelock*." No doubt improvements will be made in this class, although those now named are good and worthy of a place in any selection.

In bedding plants we have many new candidates; some, no doubt, will be permanent, and many others will disappear, as others have done before. There is one plant which, if it should prove hardy this winter, will, as a shrubbery plant or ornamental massing plant, be found a general favorite. It is called the "*Farfugium grande*." We have seen it planted out this summer, where it was growing most robustly, sending up multitudes of strong leaf-stalks from two and a half to three feet high, surmounted with their peculiar shaped and very uncommon marking, which strikes even a casual observer with a surprise that attracts his attention. We have seen this in flower, but the flower is not a recommendation to it. It will be grown for its fine, bold, handsome foliage; and even if it should not prove hardy, no doubt it will still be raised as a bedding plant.

The "*Gynerium argenteum*," or "Pampas Grass," is a great lion amongst the things that be, and is gradually attracting an increasing share of attention and patronage. Many fine plants have bloomed well this season; and, from the fleecy, silvery, light and elegant habit of the plant, and the rate at which it becomes a specimen, there is no wonder that it should create a sensation. We expect to see large plantations made on the borders of lakes and by ornamental waters, of this princely grass, where it will be at home, and where it will contrast beautifully with the water, particularly when in bloom.

Another plant has been brought into notice pretty much during the last few years, and it is quite probable will become *the* favorite, both of large and small gardens, for many years to come. It is called the "*Tritoma Uvaria*." It is evergreen, and is a plant of rapid growth. With us it is perfectly hardy; and when in bloom,—its season being from July to September,—it is so extremely brilliant, as to eclipse many fine and large masses of scarlet Geraniums, Verbenas, and such showy plants when at their best.—The flower spike rises from four to six feet high, and each spike is bristled with hundreds of flowers of the most intense orange and scarlet. Probably this is the most showy of all the plants now grown for out-door effect; and, judging from its many good properties, it is likely to be much in request.

Notices.

NOTICE.—The subscriber, being about to edit a New Edition of "DOWNING'S LANDSCAPE GARDENING," will be glad to receive any information respecting the Character or Hardihood of any of the Newer Evergreen or Deciduous Trees which have been introduced into cultivation within the past ten years, as he is desirous of comparing the varied success of the same tree in the different portions of the United States.

H. W. SARGENT, Wodenethe, Fishkill Landing, Duchess Co., N.Y.

Horticultural Societies.

[Our space will not generally allow of our giving a full list of premiums awarded by our Societies, and we shall usually confine ourselves to giving the names of those who obtain the FIRST and LARGEST Premiums.]

PENNSYLVANIA HORTICULTURAL SOCIETY.

The Stated Meeting of this Society was held at Concert Hall on Tuesday Evening, October 19, 1858, General Patterson, President, in the chair. The display on the occasion consisted of a collection of finely grown plants from Mr. Dundas' Conservatories, and a specimen plant. Two orchids-Gongoras and a new plant, Maudinola Royalii, from Dr. Rush. A salvia sp. by Thomas Meehan, and Roudeletia amœnula by P. Mackenzie. Three seedling monthly Carnations by J. A. Goehring. A beautiful Table Design by D. R. King's gardener. Another by J. A. Goehring, also, a small Basket and Bouquets. A Basket and Bouquets by J. J. Habermehl. A stand of the choicest cut Dahlias by R. Buist. Fruits, by Isaac Baxter, Grapes eight varieties; Pears eleven varieties. Specimens of the Clara Grape by Peter Raabe. A large variety of Chicken Grape by L. Chamberlain; and the Kilvington by R. Kilvington.

Premiums were awarded as follows. By the Committee on Fruits and Flowers:

COLLECTION OF TEN PLANTS, for the best to John Pollock, gardener to James Dundas.

SPECIMEN PLANT, for the best to the same.

TABLE DESIGNS, for the best to John Hamilton, gardener to D. R. King. For the second best to John A. Goehring.

BASKET, for the best to J. J. Habermehl.

BOUQUETS, for the best pair to the same. For the second best to John A. Goehring.

SPECIAL PREMIUM of one dollar for Orchids to James Eadie, gardener to Dr. Rush.

The Committee called the attention of the Society to a very beautiful display of cut Dahlias from the garden of Robert Buist. The brilliancy of Amazon and the perfection of Espartero and Cavalier are worthy of especial notice.

By the Committee on Fruits:

NATIVE GRAPES, for the best collection to J. McLaughlin, gardener to Isaac B. Baxter. For the American seedling Grape "Clara" to Peter Raabe, a premium of eight dollars. This Grape, represented as an American seedling, originated with Peter Raabe, is a white or amber-colored variety, berries round, bunch tapering of medium size, apparently very productive and a very great acquisition to that class of fruits.

The Stated Meeting for November was held on the 16th at Concert Hall, Robert Buist, Vice-President, in the Chair.

The display did not meet anticipations. It consisted of a specimen dwarf Chrysanthemum and specimen plant Cypripedium insignia from Dr. Rush's houses. By J. J. Habermehl specimens of large and dwarf Chrysanthemums. By Robert Buist a *new plant*, the *Apheleandra Porteana*. By Thomas Meehan another, the *Bouvardia Laura*. *Acacia platyptera*, trained over a wire frame, by M. Hegarty, gardener to Joseph Harrison. Fruits from Isaac B. Baxter,—Pears: Lawrence, Columbia, Clairgeau, Broompark, Doyenne, Columbia, Niles, Duchesse and St. Germain; also, Grapes: Winter and Isabella. Vegetables.—from Mr. A. J. Buckner's a dish of Mushrooms and very large Brocoli; from James Jones, gardener at Girard College, fine white and red Celery. Large rooted or Hamburg Parsley and Robson gold ball Turnips by R. G. Swift, and Celery by J. J. Habermehl. By J. S. Ritchie products from the city of Superior, Lake Superior, Wisconsin, several kinds of large and remarkably fine Potatoes, monstrous Turnip, Corn, Hungarian Grass, Winter Wheat, Buckwheat, &c. By Dr. A. S. Kennedy specimens of Wild Rice, Zazania aquatica.

Premiums awarded on this occasion were by the Committee on Plants and Flowers.

CHRYSANTHEMUM, specimen dwarf variety to James Eadie, gardener to Dr. James Rush.

SPECIMEN PLANT, for the best, the *Cypripedium insigne*, to the same.

NEW PLANTS, for the first time shown, a Premium of one dollar to Thomas Meehan for *Bouvardia Laura*, and of one dollar to Robert Buist for *Apheleandra Porteana*.

TABLE DESIGN, for the best to John Hamilton, gardener to D. R. King.

BASKET, for the best to J. J. Habermehl.

BOUQUETS, for the best pair to the same.

By the Committee on Fruit:

PEARS, for the best collection to Isaac B. Baxter's gardener.

The Secretary exhibited a specimen of the Doyenne Cornice Pear.

By the Committee on Vegetables:

CELERY, for the best six stalks to James Jones, gardener at the Girard College. For the second best to the same. Brocoli, for the best five heads to James Thomas, gardener to A. J. Bucknor.

SPECIAL PREMIUMS of one dollar each, to James Thomas for a dish of Mushrooms; and to R. G. Swift for a dozen Roots of the Large-rooted or Hamburg Parsley.

They called attention to the Potatoes of large size, Cereal Grain, Tobacco and Turnips raised on the unmanured ground in the city of Superior, Wisconsin, and deposited by James S. Ritchie.

An inquiry was made by a member, whether the Premium awarded at the last meeting for the "Clara" Grape was awarded as for an American Seedling. He was informed that by the report it was. A member of the Fruit Committee remarked that it was their intention to have reported that it was so represented. Doubts being expressed of its being an American seedling, Mr. Raabe was called upon. He stated that the Clara grape vine originated with him, and that it came up in the edge of his garden border some years ago; that the only foreign grapes he had grown previously were the Frankenthal and Hausstretto, both dark grapes. The vine stood out unprotected during all the severe winters since, without injury, and was perfectly hardy and had not mildewed; was very prolific and of the best quality. And, after further discussion, the following resolutions were adopted:

RESOLVED, That the subject of what are the characteristics which constitute an American Seedling Grape be referred to the Committee on Botany.

Resolutions were adopted, recommending to the Committee for Establishing Premiums the propriety of reporting a schedule for the ensuing year, with Premiums for the months of March, April, May, June, September, October and November only. And that they shall be so judiciously arranged and liberal as to insure an active and interesting competition.

CINCINNATI HORTICULTURAL SOCIETY.

SEPTEMBER 25th.

President Storms in the chair. A communication from Mr. Longworth was read and ordered to be published. Mr. L.'s letter had reference to some large Fox Grapes raised from seed brought from Newark, N. J., and some very prolific Corn. Fruits were exhibited by S. W. Hazeltine, Dr. H. Horne, and F. G. Cary.

NOVEMBER 6th.

Mr. Hazeltine, from the Committee for Soliciting Aid to the Deficiency Fund, submitted a report, from which it appears that the whole amount of $741 has been raised by 69 *new* paying members, 21 life members, and $151 donations in cash and remitted premiums. They also recommended that their exhibitions should be held earlier in the season, and as centrally located as possible.—Vegetables were presented from the farm of I. Gerard, Esq., Westervelt, Minnesota, about the latitude of Montreal, amongst which we noticed a Drumhead Cabbage forty inches in circumference; Red Dutch do, thirty-four; Ruta Baga 27 inches; Turnip Radish 18; Altringham Carrot 11; White Globe Turnip 21, and Red Spanish Onion 31 inches in circumference. Corn was stated by the exhibitor to yield there 80, and Potatoes 400 bushels to the acre.

NOVEMBER 13th.

The Committee appointed to investigate the cause and extent of the failure of the Grape crop in the vicinity, presented a report.—The deficiency in Hamilton alone was estimated at little short of $500,000, the loss falling heavily on the industrious Germans, who have trenched their three, five, or ten acres. The value of lands devoted to Grape culture was shown by the fact that tracts that could not be sold a short time since for $10 per acre, can be sold for over $70 per acre since the introduction of the vine. Some cultivators thought of abandoning the Catawba variety, from its liability to the mildew and rot. Some have replaced it with other kinds. The Committee hope some remedy will be found before its culture is abandoned, and recommend a premium to the person who can secure a full crop. They object to the severe pruning they annually give their grapes. Instances were given where unpruned vines produced heavy crops, while *well* pruned ones close by were nearly worthless; and one instance was given where a root pruned vine bore abundantly,—all leading the Committee to the conclusion that a disproportion of roots to canes produced disease. Another instance was given where the vines were planted wider apart than usual, whereby the vines did not require so close a pruning, and the advantage was quite marked. Mr. Buchanan remarked, that with him vines planted against the house and board fences had escaped, while those on arbors rotted and mildewed. He had observed no difference in the long trained or severe pruned ones. He considered atmospheric causes to be at the bottom of the difficulty. He thought the mildew appeared more frequently after a vineyard had reached its sixth year than before. All the members seemed to agree that the atmosphere had something to do with it. Mr. Kellogg and R. Buchanan exhibited five specimens of Fruits.

Exhibition at THE INDUSTRIAL PALACE,

TORONTO, C. W.,

Was a very successful affair. The Garden produce was very remarkable. Messrs. Leslie & Co. sent 72 varieties of Apples in first rate condition, and many of the Montreal cultivators sent fine collections. Of the varieties that seem to be the greatest favorites with the Canadian orchardists, we may name the 20 ounce, Snow Apple, called, also, Fameuse, Ribston Pippin, Banks Pippin, Rhode Island Greening, Blenheim Orange, Bourrasa, and St. Lawrence. Pears do not do very well; though in one collection 20 varieties were exhibited. Peaches failed this year, and Plums nearly so. On the whole, the exhibition was very encouraging.

ORLEANS SOCIETY,

FRANCE.

This exhibition was held under a marquee, or tent, on the site of an ancient garden in the centre of the city where was held, in 1855, the brilliant floral fete on the occasion of inaugurating the statue of Joan d'Arc. On this sterile and uncultivated spot that skilful rural architect, M. Le Breton, created, in a few days, a complete landscape garden, with its long alleys, its arbors, its lawn, its immense trees, and its beds of flowers. Nothing was wanting,—not even a rustic bridge crossing a stream on mossy rocks, over which the water fell in a beautiful cascade, forming a large lake in the midst of the lawn. The prizes were a gold medal, worth 300 francs, given by the Emperor; another offered by the Minister of Agriculture, and a bronze one, offered by the city. The show of Fruits, Flowers, and Vegetables was most imposing.—Among the articles shown was a specimen of hose, or conduit, for irrigating gardens, formed of tarred paper!

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. FEBRUARY 1, 1859. VOL. I.---NO. 2.

CALENDAR.

2nd Month, February, 1859, 28 Days.

Moon's Phases		Boston.	Philad'a.	Baltim're	Charl'st'n
	d	h m	h m	h m	h m
New.	2	8.20 eve.	8.53 eve.	7.37 eve.	7.45 eve.
First Quarter.	10	2.56 eve.	2.39 eve.	2.33 eve.	2.21 eve.
Full.	17	5.35 mor.	5.41 mor.	5.35 mor.	5.23 mor.
Last Quarter.	24	9.37 mor.	9.20 mor.	9.14 mor.	9.02 mor.

Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	02	7.12	5.15	7.08	5.20	7.03	5.23	6.55	5.33
	10	7.02	5.26	6.59	5.30	6.56	5.31	6.48	5.41
	17	6.52	5.34	6.51	5.38	6.48	5.39	6.41	5.47
	24	6.42	5.44	6.41	5.46	6.39	5.47	6.34	5.53

This Calendar will answer for the sun for any place in the same latitude.

Hints for February.

FLOWER GARDEN.

THE season for active operations will now have commenced in the Southern States, and is fast approaching in the Northern ones. Where the frost has actually left, and little danger is apprehended of a severe return, planting may be at once proceeded with. In the Middle and Northern States, the winter will yet hold its own for a while, and every thing that can be done in advance of the busy season should be studiously executed. All pruning should especially be got out of the way, that may require doing. All ornamental shrubs and vines will require an annual going over,—not with a pair of hedging-shears, as is often employed; but with a knife, and that with judgment. In pruning a climbing Rose, for instance, all the very strong and vigorous shoots of last year should be preserved, and all weak and decayed ones, as well as old shoots exhausted by abundant flowering, should be cut away. It should also be an object to get good strong shoots as low down towards the root as possible, as the finest flowers, coming from the strongest shoots, are thereby equally diffused over the whole plant. In pruning shrubs, a distinction should be made between those which flower from the young wood as it grows, and those which produce them on the wood of last year. The former—as, for instance, the Althæa—may have a very severe shortening of the shoots, as the new and vigorous growth will produce fine flowers; but in the latter case—say, for instance, a Lilac,—if the last year's shoots are severely shortened, it is so many flowers destroyed, and such kinds should have only the weak wood thinned out. In all pruning, attention should be given to preserving a good shape to the bush or tree, as well as in attempting to get a vigorous and luxuriant growth.

In tying up vines and climbers to wire trellisses, or, indeed, any kind of trellisses, on porticoes and piazzas, they should never be allowed to entwine themselves in and about the meshes. It is often necessary to take off the plant to paint, repair or do something with the trellis or vine, and it is well to keep it on the outside, to prevent injury under such circumstances. Besides, some fine climbers, as Gelsemium nitidum, and many kinds of roses, which require a slight protection in winter, may then be easily taken down, and be coiled into a circular form at the base of the plant and covered with soil, which is one of the simplest and best modes of protection, and by which many of our choice greenhouse climbers might be kept out in pretty severe winters.

Do not plant immediately after the frost leaves the soil; wait till it dries a little, when you can tread the soil firmly about the roots without risk of rendering it hard as it dries more. If circumstances make it necessary to plant in wet soil, do not press the soil much until it gets drier. It is important to have the soil well pressed about the roots, but it injures soil to press it when wet.

As soon as the frost leaves the ground, the lawn should be rolled with a heavy roller, while it is yet soft; this will make it have a smooth surface, take out many small inequalities, and press again into the soil the roots of the finer grasses which the frost may have drawn out. Where new lawns have to be made next spring, the seeds should be sown as early in March as possible, and the ground should be prepared for that now, if opportunity offers. For a good lawn, the soil should be loosened at least twenty inches deep, and be well enriched with stable-manure, where practicable, in preference to any concentrated preparations. Guano, superphosphates, &c., are well enough; but they do not give the soil that *fibre*, or lend it that *porosity*, by which it retains moisture and air, so essential to perfect vegetation.

Shrubs are not near enough employed in planting small places. By a judicious selection, a place may be had in a blooming state all the year; and they, besides, give it a greater interest by their variety, than is obtained by the too frequent error of filling it up with but two or three forest trees of gigantic growth. Plant thickly at first, to give the place a finished appearance, and thin out as they grow older. Masses of shrubs have a fine effect on a small place. The centre of such masses should be filled with evergreen shrubs, to prevent a too naked appearance in the winter season. Evergreen trees may be made into shrubs by having the leading shoots taken out several times in a season. Where the thermometer does not fall below zero, the Euonymus japonica is a fine evergreen shrub for this purpose, as also is the Photinia serrulata. Mahonia aquifolia does very well, but grows hardly fast enough to make it useful for centres of masses of any but very low growing shrubs.

In planting small places, avoid too strong an attempt at *landscape gardening*, as such "landscaping," as our garden-laborers here term this work, generally ends in failure. Instead of producing a work of art, it often results in a toy. Near a straight walk, or straight lines in a building, or other stiff and artificial matter, too much curving and bending will be meaningless and absurd.

Ornamental hedges, judiciously introduced into a small place, add greatly to its interest. No easier method offers whereby to make two acres of garden out of one in the surveyor's draught. The Arbor Vitæ, Chinese and American; Hemlock; Holly; Beech, Hornbeam, Pyrus japonica, Privet, and Buckthorn may be applied to this purpose.

Herbaceous plants do badly if several years in one place. Every second year, at this season, take up and divide them. Sow as soon as possible some hardy annuals. The earlier they are in the ground after the frost leaves it, the finer they bloom.

FRUIT GARDEN.

IN the Southern States spring planting will have commenced. Here, and northward, it will be best to wait till the March winds are over. Whenever planting is done, always shorten in most of the last season's growth. It is through these much of the evaporation takes place that dries up and kills a tree before the new roots are formed. Let it be a rule *never to plant a tree without pruning it*. Some, who get most of their Horticultural knowledge in their closets, will object to this, as opposed to theories taught by professors. Never mind. Plant two trees near together; prune one severely, and leave the other unpruned. You will not afterwards feel it a disgrace to be dubbed "a practical gardener."

Never plant on a cold, windy day, and do not plant fruit trees on a poor, thin soil. *Subsoil*, *drain*, and *enrich*, cannot be kept too prominently before the planter. If the trees grow too luxuriantly to bear well after this, it is easily remedied. We can plant dwarf trees, or root prune, or practise summer pinching and training. The last can only be done successfully by experts. Where skill cannot be employed, dwarfing and root-pruning will be extensively used.

VEGETABLE GARDEN.

IN those favored localities where the frost has melted before the smiles of spring, the gardener will lose no time in getting in his Potatoes, Beets, Carrots, Parsnips, Peas, Spinage, Radishes, Lettuce, Onions, and Salsafy. These should be the first crops put in after the season breaks up for good. The earlier they are in, the better. Asparagus. Rhubarb, and Horse Radish beds may now be made. Asparagus roots are generally planted too thickly to produce fine shoots,—they starve one another. A bed five feet wide should have three rows, and the plants set about eighteen inches apart. A deep soil is very important, as the succulent stems require every chance they can get for obtaining moisture. About four inches beneath the soil is sufficient to plant them. Rhubarb also requires a deep, rich, and moist soil. The Linnæus and Victoria, of old and well-tried kinds, are considered very good for size and quality; the Prince Albert and Tobolosk, for earliness; and the Prince of Wales and Blood Royal, for color and flavor. Horse radish beds are best made by taking pieces of strong roots, about one inch long, and making a hole about a foot or fifteen inches deep, with a dibble, and dropping the piece to the bottom of the hole; a clean, straight root will then rise up through the soil.—Crowns or eyes are better than pieces of roots, where they can be had, and a rich clayey soil better than a light sandy one.

About the middle or end of the month, or still later in the North,—say the middle of March,—Celery and late Cabbage may be sown. Here we usually sow the second week in March.

Those who have hotbeds will now sow Tomatoes, Egg plants, Peppers, and other vegetables that can be forwarded by this means; and those who have not, will sow them in boxes or pans and forward them in windows. Every garden ought to have at least a few hotbed sash to forward early vegetables; for if they have no means of applying artificial heat to them, the sash will of itself forward some things considerably.

All gardens should have beds of herbs. They are always looked for in the fall, and nearly always forgotten in spring. Now is the time to plant Thyme, Sage, Mint, Balm, and other perennial herbs, and Parsley and other seeds of hardy kinds may be sown. When we say *now*, it is, of course, understood to mean where the frost has evidently broken up for the season. Our readers in less favored climes will not forget it when it does.

Many parties like to have Turnips sown in spring. The only way to succeed with them is to sow as early as possible, and on a very rich piece of ground, where they may grow speedily. If they do not swell before the hot weather comes, they will certainly run to seed.

NURSERY.

Wherever there is not much danger of more very severe frosts, cuttings made through the winter or still to be made, should be put in at once. It is best to cover full two-thirds of the cuttings under the ground. In the case of the Grape vine, they should be put down low enough to admit of only one eye being above the soil; the cuttings being about three eyes in length. The cuttings may be put thickly in the rows; if the soil is rich, they may nearly touch; but a space should be left, conveniently wide to hoe easily between. Almost all cuttings should be made of the past season's wood, and though many things do not require to be cut off close beneath an eye, they mostly do the better for it.

Many kinds of shrubs are best increased from layers; and others that grow easily from cuttings are frequently layed, as that can be done in July and August when work is not otherwise pressing. These are frequently taken off in the fall and laid in under protection; while others leave them stay on till now. Those taken of now, should be well trimmed or pruned before being set out into nursery rows. If they are not pruned, they will only *live;* if pruned, they will also *grow.*

Seedling ornamental and forest trees will require transplanting into nursery rows from the seed bed.—To make the most of the ground, the rows may be planted twice as thick as will be required to make a five year old tree, and two years hence, take out the middle row. Almost all kinds of seedlings are best cut clean down to the ground at planting, or the year after planting,—for some nurserymen do one, and some the other. This induces a clean and vigorous straight stem, which adds much to the market value of the tree.

Apple, Peach, Plum, Cherry and Pear seeds, that have been in sand and exposed to the frost through the winter, should be sown as soon as possible. If any come to hand about this time in a dry state, do not sow at once, but put in sand, and water frequently with warm water, till the first week in April, before sowing in the open air. If the soil be not deep and rich, do not sow for stocks. It will not pay.

All other seeds that have been in sand-boxes through the winter should be put out at the earliest opportunity, except Acorns, Chestnuts, and such seeds as sprout easily. These are best left in a heap thinly spread on a light piece of soil, and about the month of April, dibble them out in rows, as is often done, and with great advantage, too, with Peach and Plum seedlings.

Any nursery trees that have been three years without removal, and are usually risky to transplant, as Oaks, Tulips, Poplars, &c., should be transplanted now.

In planting out fruit stocks, it is all-important that the soil be deep; otherwise the growth will be feeble, and in budding-time the bark "won't run." Every thing to induce a good, free growth should be done.

Grafting will now have to be attended to. In the warmer States, commence with Cherries,—further North, begin with Pears first. The "best time" to begin is just before the leaf buds seem ready to burst. A short scion is preferable to a long one. So that one bud is above the grafting-wax is sufficient.

FORCING.

The recommendations for starting very early houses in former Hints, have, no doubt, been attended to by those who have them. The majority, however, will commence this month, especially those who have only had since last November to get their plants ready. It is not easy to make trees bear well transplanted the past season into pots; but with care in maintaining a regular moisture in the atmosphere, they may be made to do so. Fires must be employed cautiously at first, so as to keep the temperature about 55° for a few weeks. The temperature need not be above 60° or 65° till the fruit has set, when it may be gradually run up to 75° or 80° by the end of April, after which fires will rarely be necessary.

Forcing fruits is so simple an operation in America, that very little can be said of it. A regular temperature; regularity of moisture, both at the roots and in the air; a good circulation of pure air when the plants are growing; and a careful look-out for the first approach of insects, are the chief requisites to success.

Grapes for cold vineries may soon be planted.—Choose strong two or three year old vines. If in pots, shake out all the soil, spread all the roots straight, and cut the cane down to but a few eyes.

HOT AND GREENHOUSE.

Camellias, as they commence to grow, will be in a condition to shift, if they require it. As a rule, there is by far too much re-potting practised, both in these and other plants. A plant is usually healthiest when its pot is full of roots. There is then little danger of injury from the injudicious application of water, which is the cause of three-fourths of the diseases of pot plants. If a plant does not grow so well as it might do, through its pot being rather small, this can be, in a great measure, made up by the application of manure-water. After plants are repotted, they should not be watered more than can well be avoided, as the new soil is apt to sour if the water does not pass very freely away.

The above remarks apply to all hot and greenhouse plants. Repot only when growing very weak, and choose the time for that just before the plant begins to grow, whenever that may be. If a plant is not in a good shape, cut it down about three or four weeks before it is desired to pot it. Never cut down and repot at the same time if it can be avoided.

Gesnerias, Achimenes, Gloxinias, and all bulbs that are destined to flower through the summer, should be potted now, and brought forward in whatever heat we may have at command. It is a frequent practice to put what are called Cape bulbs, into any dark spot where nothing else will grow; but this is an error. They like all the light they can get. Do not forget to sow some of the most popular kinds of annuals, so as to get them earlier in bloom than those in the open air.

Rooms, Cellars and Frames.

Plants in rooms should have all the light possible at this season, and all the air they can get, whenever the temperature outside the window is above 45°.—The room temperature should not be higher than 60°. Frequently, where the fires are suffered to go out in the night, the temperature is reduced to nearly the freezing-point. Where this is likely to be the case, the plants should be removed till the morning to the warmest part of the room.

If any plants grow too freely, and do not flower well, as sometimes the Heliotrope does, for instance, give them no more water than will barely keep them from flagging, and remove to the driest part of the room. This will generally reduce their obstinacy.

Ladies who have no greenhouses may sow some annual flower seeds in their windows now, in boxes, and afterwards transplant them at the end of March in the open garden. These will be nearly a month in advance of those sown in the open air.—A very fine assortment of these may now be had for a trifle in most seed stores.

Keep an eye on the plants in cellars occasionally, that they do not suffer from water, or get too damp. On fine days air should be admitted freely.

Communications.

NOTES ON THE CARROT.

BY N. B. BRASIER, BROOKLYN, N. Y.

Editor of Gardener's Monthly:

A few years ago, being on a visit to my friends in Paris, and having a taste for gardening, I went to see the *Jardin des Plantes*. Among many things that interested me there, were some Carrots of a very handsome shape, which I was assured were raised from seed of the common wild Carrot originally. It occurred to me that if this result could be obtained so readily, how much might be done for many wild plants of the States? My friend very kindly procured for me, from one of their papers, an account of the exact process, which, if it contain any novelty to you, I should be glad to see you use for the *Monthly*. Reading your remarks on parks and experimental gardens, suggested to me the possibility of some parties being likely to have the leisure to experiment on our wild plants. The following is the account as it was given to me:

"First year. Seed sown in rich soil. In the fall the roots were taken up, and found to be of a white color, but with fewer fibres, and the root had assumed a bifurcated shape.

"Second year. Planted out root for seed in good soil.

"Third year. Planted seed and took up root. Color, salmon; much larger, and but slightly bifurcated.

"Fourth and Fifth years. Same process repeated, by which time the root had acquired a rich orange, and the quality and flavor equal to the generality of Carrots raised in a garden."

[We have heard of these experiments before, made, we believe, either under the eye of M. Naudin or M. Pepin, both of them careful and reliable experimentalists. We do not think the facts are generally known; and many plants might, like them, be reclaimed from a wild state. It should, however, be borne in mind, that the Carrot very easily returns to a wild state, and, therefore, may as easily be reclaimed. We saw, the past season, a lot of fresh Carrot seed, imported from one of the oldest firms in London, and sown in March, bring forth Carrots identical in all respects with the wild one,—a small wiry root and *plenty of flowers*. From the same package of seeds, sown in May, by the side of the former crop, we saw some of the *handsomest Carrots ever raised*.—Ed.]

DELICES D' AUTOMNE.

Will this Strawberry produce an autumn crop under ordinary out-door culture? From recent accounts such is the inference. If in possession of the true variety, it has entirely failed to produce a single berry here. Let us have more light.

J. K. E.

HEDGES IN THE SOUTH.

NOTE FROM MR. AFFLECK.

In a note from Mr. Affleck, speaking about the article quoted in our last from the *Houston Telegraph*, he thus alludes to the notes we appended to it, in reference to the names of the plants spoken of:

"Our Chickasaw rose is not R. lucida, but I *think*, *R. bracteata*, of Loudon. The flower has a rich odor of Banana,—single white, or nearly single. Anthers so abundant, as to make it look almost yellow. You are right as to *R. lævigata;* but I am not so sure as to the other probabilities.

"We have here magnificent hedges of the Cratægus pyracantha, which is a favorite plant for that purpose. But then it *must* be attended to at least once a year. *Who* ever saw a good fence of Osage Orange? Echo answers, owl-like, 'Who—whoo!' It is certainly unfit for the purpose here in the South. Too rampant of growth. Yet we have any number of plants brought annually from the West, and sold here for the purpose."

We should be glad to know for certain, what is the plant commonly known to our Southern friends as the *Chickasaw* rose. We always supposed it to be an indigenous species; but *R. bracteata* is a native of China. Still, like the Pride of China, Julibrisin, and other things, it may be very widely disseminated there.

We think we can show our friend at least *a few* good Osage Orange hedges; but to get a good Osage hedge, it does unquestionably require great attention,—more labor, in fact, than many farmers will bestow. Still, if the necessary labor be *understandingly* employed, less of it than is thought for would do. For instance, the sides of a hedge *should not be touched* in summer time, but two or three cuttings on *the top* should be given it; and this can be done by an expert mower with a sharp scythe. The man who may introduce a hedge plant that will require *no labor*, will certainly deserve well of his country. There ought to be some shrubs that will keep bushy without much labor. The *Cratægus pyracantha* may do well in the South, and in the North its cousin, *Pyrus japonica*.—But if we want shrubs that take no *labor* for hedges, we must *wait* for them to grow,—they do not grow fast enough for this fast age.

STRIKING CUTTINGS IN MOSS.

BY A PRACTICAL GARDENER.

Philadelphia, Pa.

I notice in your last No. an account of the way they strike hard-wooded things in Germany, by putting them in powdered moss; and it has reminded me of something that I saw a few years ago, which I thought strange at the time, but which I had quite forgotten till I read your German account.

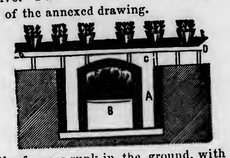
A friend of mine was coming to this country, and I asked him to bring along with him some cuttings of shrubs that I wanted, from a garden near him. Not being himself much of a gardener, and not knowing quite what I described to him to get, he brought something of every thing. Thorns and Sloes, Cotoneasters and Crab Apples, and many other things that we never think of raising from cuttings, were amongst that lot, which were put loosely in a hamper basket, with damp moss around them. Not very well pleased with not getting what I wanted, I am ashamed to say, I treated the basket very shabbily, considering that it came so far. After a hasty look over, I set it in a damp cellar, where they were both "out of sight and out of mind," for near three weeks, when, looking at them again, I found the whole basket of moss a mass of roots. Some few things had rotted outright, but the majority were matted together with roots; thorns, apples, and all. I planted them out at once, but I suppose the change from dark to light was too sudden, as most of them died. I have, however, still a *Cotoneaster emarginata*, *Pyracantha*, and some other things from that lot of stuff. It struck me at the time, that if ever I got into the nursery business, I could make something out of the idea, in striking difficult things; but as I have had no occasion, the idea has been forgotten. As your article reminded me of it again, I thought it but fair to offer it to you. If you think with me that it is a useful hint, you are welcome to it for your paper.

[Highly interesting facts.—Ed.]

PROPAGATING TABLE.

BY RUSTIC.

I have recently completed a small pit for growing vines, and at the furnace end of it I have partitioned off a small propagating department, in which is a bed or table over the furnace, which I find so useful, that I have concluded to send you a drawing of it, hoping that it may be of use to some of your readers. For striking cuttings that require bottom heat, for growing vines from eyes, and for starting seeds, I have never met with any thing so economical and yet so effective. I will now endeavor to explain it, with the help of the annexed drawing.



B is the furnace sunk in the ground, with an air-chamber A at the back and sides. This air-chamber has two openings in front near the ground, one on each side of the ash-pit. These openings supply the chamber with fresh air, and keep up a good circulation in the house. Care should be taken always to make these openings *near the ground;* otherwise, the smoke and gas from the door of the furnace will be drawn into the house. The earth on each side of the furnace should be levelled off even with the top of the air-chamber, and made solid by beating with a spade or ramming; then tiers of bricks should be laid edgewise on the earth at C, running from the back to the front of the table, taking care, however, to leave openings of about an inch and a half between the ends of the bricks to allow the hot air to circulate freely. Then lay flatways on these tiers of bricks at D courses of ordinary roofing slates, which cost no more than common inch board. They should have a bearing of an inch at each end on the bricks, and the width of the courses of bricks should be regulated by the length of the slates. On these slates should be a sufficient depth of sand at E, to plunge your pots or boxes in. Along the path of my house, and at the ends of the courses of brick, I have a board hung on leather hinges, that I open at night when the fire is too hot. By this means I can regulate the temperature very easily.

By this arrangement I can propagate by cuttings, the most difficult plants in a surprisingly short time. Indeed, if I go on the rest of the winter at the rate I have begun, I will have no room to house my small stuff. Cuttings that require a bell glass, I insert in 8 or 10 inch pots *half filled* with sand or earth, and lay a pane of glass on the top of the pot.

Now, Mr. Editor, I have contributed my mite for the general good, and I hope all my brethren who are possessed of any fact that may be of any use to you will do likewise.

Yours, very truly, Rustic.

HARTFORD PROLIFIC GRAPE.

BY H. W. TERRY.

This Grape originated about ten years since in the nursery of Mr. Steel, near Hartford, in Connecticut, probably from the seed of a wild Grape; but little notice was taken of it for two or three years after its first bearing. It was then presented for examination to the Hartford County Horticultural Society, and after being tested for two or three years, it received from them its present name. The vine is a strong grower, hardy in the most northern regions of New England, and is propagated with great ease from either layers or cuttings. The grape has never been claimed to equal the Isabella as a table-grape, but as ripening perfectly in a latitude where the Isabella will not ripen at all. The bunch is about the size of the Isabella; the berry somewhat larger, rather oval, rather more foxy, perhaps with somewhat more pulp, and when well ripened, more sugary, and will probably prove a much better wine grape. It is enormously productive, and ripens at Hartford from the 1st to the 10th of September, at least three weeks earlier than the Isabella.

Its great advantage is, that where the Isabella will not ripen at all on the open trellis, which comprehends most of New England and Northern New York, the "*Prolific*" ripens perfectly, thus giving to all in that region a good eating grape. What its wine-making qualities are, remains to be farther tested.

[Thanks to Mr. Terry for his interesting and instructive communication.—Ed.]

PRACTICE VERSUS THEORY.

BY DACKRY.

Dedham, Mass., December, 1858.

Mr. Editor:—

I was much pleased with the Specimen Number of the *Gardener's Monthly*. It is just the thing that gardeners have been in want of; and, if conducted in accordance with your prefatory remarks, cannot fail to win the confidence and good-will of every intelligent gardener.

It is to be hoped that every experienced gardener will, through the medium of the "Monthly," give his professional brethren the benefit of any thing new or interesting that happens in his special practice.—Much can be done in this way to instruct and interest. Your remark that the best practical experience is often possessed by those unused to handling the pen, is perfectly correct. Every one knows that some of our most fluent and polished writers on Horticulture have had very little practical experience; but they have caught the theory, and their fingers itch to record the details. Theory is all very well if combined with practice, but dangerous otherwise, unless it is honestly stated that it is *only* theory. A short and pithy article on almost any subject within the sphere of the practical man, is worth pages of the theorist's reasonings and deductions: not that theory is bad in itself, but that it should be subordinate to practice.

May we not hope that every gardener and amateur will not only consider it a duty, but a pleasure, to communicate to the "Monthly" any peculiar and interesting facts in relation to Horticulture, Floriculture, or its kindred subjects? The column devoted to new or rare plants will always be an interesting feature. Might I suggest, in addition to the names, the advantage of giving the natural order? This, in most cases, would give a good idea of the appearance and habit of a plant. How many of your readers, for instance, know any thing of *Adhatoda Cydoniafolia?* Hundreds of gardeners, it is believed, never heard the name before; but if the natural order had been given, could have formed some notion of its worth or beauty.

An article on Cheap Glass Houses, by "Schuylkill," seems, in my opinion, to demand some explanation. The flue is represented as running along the *back* of the house. Is this in accordance with sound theory? But more puzzling [still is the system for wintering plants in a dormant state. A shelf over the flue would have been the last place I should have thought of for that purpose.

The hints on pruning Evergreens are excellent, and well worth the price of the whole paper. Its circulation cannot fail to be commensurate with its merits. This part of the country, (Boston and vicinity,) I know, gives you hosts of subscribers and correspondents. All of my gardening friends who have seen it, like it, and are bound to have it; but the thing came on us by surprise, never having heard a whisper on the subject until the Specimen Number made its appearance.

Every gardener and friend to the cause is in duty

bound to assist in this object. Let us all join heartily in the cause. Every one may do something. It is our interest, and it ought to be our aim, to make the *Gardener's Monthly* the leading Horticultural paper in the United States. DACKRY.

[THOUGH entirely unknown to us, we are none the less obliged to our friend for his encouraging communication. His suggestion with regard to the natural order, we think useful, and shall be carried out. "Schuylkill's" flue is not arranged to the best advantage for *economy of heat*; but in his peculiar case, that was less an object than *economy of space*. As it now is, he has all the room the flue would occupy around the house for plants; while the flue itself is placed where growing plants would not do well.—When we saw "Schuylkill's" house, the shelf above the flue was occupied with dried pots of Achimenes, Gloxineas, Gesnerias, &c., which, we presume, are the plants in "a dormant state" alluded to. Where it is a chief object to get the advantage of all the heat possible from a flue, it should always be carried along the front.—ED.]

PROTECTING TREES FROM MICE.

BY EDMUND KELLY, HAMILTON, C. W.

Mr. Editor:—

There is nothing, in my opinion, more annoying to a gentleman of refined tastes,—one who can behold with admiration the beauties of nature,—than to go forth in spring and find that within the past few weeks his best, and perhaps his favorite, trees have been girdled by the mice. How disheartening to the orchardist, the amateur, the lover of fine fruit, to find his trees all destroyed in the same way, after years of toil and care to rear and bring them to a state in which he expects to receive for himself and family some pecuniary benefit for his trouble, when, by a few hours work and a trifling expense, he could have saved them all—by keeping the ground around their trunks clean, free from grass or weeds, and by removing all rubbish that would harbor mice in the immediate vicinity,—by spading up the ground around the tree late in the fall, leaving it in the form of a mound, of which the tree is the centre,—by surrounding the body or trunk of the tree with either of the following materials: sheet-lead, tin, zinc, sheet-iron, or any old metal, or bark wrung from young pines in mid-summer,—or by winding, the trunk with straw-rope besmeared well with tar; oil-cloth, such as is used on the floors in halls, cut into pieces of suitable size and placed around the tree, and stayed with fine wire. Either or all of these will be found effectual. Whatever material is used should be inserted at least two inches in the earth. Its height above ground must depend on the situation, whether the snow is like to drift there or not. As mice commit their depredations beneath the snow, it will be at once perceived that the material used should extend above the snow, care being taken to remove it in the spring.

If metallic substances are used, care should be taken to secure them from barking or chafing the tree, in case the wind should wave the trees against them.

Yours respectfully, EDMUND KELLY.

[GARDENERS are often troubled in vineries by mice and rats gnawing the bark near the surface of the ground when boxed up to keep them back. We have found tarred paper, applied as our correspondent suggests, an effectual protection.—ED.]

GARDEN DECORATIONS.

THE enclosed sketches are copied from Ricautis' "Rustic Work," and may be useful to those who wish to improve the present comparatively idle period of the year by constructing articles to ornament their grounds. During bad weather this furnishes very interesting employment and healthy exercise. A saw, hatchet, drawing-knife, and some nails are all the tools required.

Fig. 1.

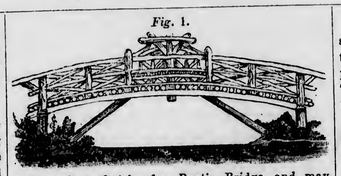


Fig. 1 is a sketch of a Rustic Bridge, and may sometimes be introduced where there is no water to cross a ravine.

Fig. 2.

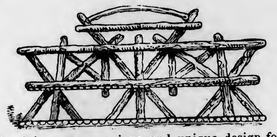


Fig. 2 is a very curious and unique design for a Garden Seat. The perspective might have been arranged so as to give a better idea of its details.

Fig. 3.

Fig. 3 is a design for a Flower Stand supported by a single post settled in the ground. This is such a simple affair, and so easily made, that a number of them might be constructed so as to be ready when spring opens.

Yours very respectfully,

D.

THE PUBLIC GARDEN.

BY MRS. J.

WE commence our article with the above title, as a Horticultural garden is tautology, Botanic garden being the name usually bestowed upon such establishments.

Public or botanic gardens are of very ancient origin. They existed some centuries before the Christian era, and were not only the theme, but the place of philosophical dissertations.

Theophrastus, the Naturalist, first founded and taught in one, and bequeathed it to his pupils; and after his time, they were established elsewhere in Greece, and finally in Italy and throughout the continent of Europe. Kings vied with each other in embellishing them, and they have almost always since that time been established and sustained either by state munificence or by scientific institutions.

The great Charlemagne laid out public gardens throughout his vast empire; and in every large city of Europe botanic gardens are now considered the ornament and the pride of the public institutions.

Under the most despotic kings and sovereigns, and during the most bloody revolutions, we know of no instance were these gardens have been wrested from their original purpose. Anne, Queen of the United Kingdoms of England, Scotland and Ireland, at one time had a desire to seize Hyde Park as an appurtenance to her royal domain, and so, by the way of sounding her Prime Minister on this delicate subject, addressed him one day with the question—

"Pray, how much will it cost me to shut up Hyde Park from the people, and annex it to my palace?"

"Only three crowns, madam," was the significant reply.

The question now before the public, of establishing in our city a botanic garden is one that has, at several different periods, occupied the attention of our citizens; and though so frequently discussed, and various attempts made to give it a local habitation, none have hitherto been carried into successful operation. It is to be hoped that the present movement may be more fortunate than its predecessors. The writer of this, after giving some details in regard to the laudable attempts of our citizens in past years to found a garden, will submit a slight sketch of what an establishment of this kind might and should become in a city like Philadelphia.

The first movement, so far as we are informed, in so praiseworthy an undertaking was commenced by the Cabinet of Science nearly fifty years ago, and the plot of ground bought and to some extent planted. This ground was on the Canal Road, above "Sedgely," near the Schuylkill River.

In 1816 Dr. William P. C. Barton wrote the following Prospectus, which was circulated among those supposed to be interested in such an undertaking.—As probably few copies are now extant, it may be worth while to give it once more to the public through the columns of your *Monthly:*

"PROSPECTUS OF A PLAN FOR THE ESTABLISHMENT OF A BOTANIC GARDEN NEAR THE CITY OF PHILADELPHIA, TO BE CALLED THE PENNSYLVANIA BOTANIC GARDEN.

"*Preamble.*

"In Europe, where comparatively little remains to attract the inquiries of the Naturalist, the importance of the cultivation of Botany, as it regards the development of the alimentary and medicinal properties of Plants, is universally acknowledged and justly appreciated. There, the study of this science, in all its practical bearings, is pursued with an avidity worthy of its object, and ranks among its votaries the most distinguished cultivators of science, the most liberal and enlightened benefactors of man; while in America, where a boundless range of unexplored country presents to the eye of Science and Philanthropy the most attractive inducements to unwearied exertion, very little has as yet been achieved. With a view therefore to point the people of America to an object eminently useful, to excite a taste laudable and elegant, and to collect in one assemblage, all the varieties of the Vegetable World which the Creator has poured profusely over our soil, and also to procure the rare and useful Plants of other climates, the Cabinet of Sciences have determined to establish a *Botanic Garden*. Aware of the magnitude of the undertaking, and believing that its importance will be justly appreciated by an enlightened public, the society is induced to appeal to its liberality for assistance in accomplishing an object so desirable.

"In two of the cities of the Union, similar establishments have within a few years been formed, and are now in a flourishing condition. The exertions of individuals which were alone nearly sufficient, have been upheld by legislative aid, and the hopes of the founders have been amply realized.

"Of Philadelphians it need scarcely be asked, shall the Hot-bed of Science, the Nursery of Arts, and the Home of Philanthropy yield to the diligence of rivals whom she has furnished with the first incitements to exertion, with the primitive elements of excellence. Dignified and adorned by a *School of Philosophy*, unrivalled in our country in respectability and genius, a school which attracts and infolds in its bosom the votaries of knowledge and the admirers of Nature from the Isthmus to the Pole, from the Indian isles, and from various portions of the continent of Europe, Philadelphia seems only to require such an establishment to complete the column of her civic glory, by thus entwining around its capital the Corinthian wreath of Botany. To finish that column then is yours; itself will remain the memorial of your munificence: and although at some remote period of futurity, the ruinous foot of time may trample upon its fallen fragments, yet around the ruins will a reverential Posterity assemble to gather the flowers of Taste and Genius, which Memory shall preserve and continue for ever green."

[PHILADELPHIA has had, and to some extent still enjoys the reputation of possessing some of the best Medical Schools in the Union. Our citizens forget how much of this pre-eminence has been owing to the fine Botanic Gardens of Bartram, McAran, McMahon, and others, which have now passed away. The establishment of Public Gardens, even as a matter of city pride, thus becomes a question of interest to all Philadelphians; and we hope our friend will continue her interesting notes.—ED.]

PASSIFLORA DECAISNEANA.

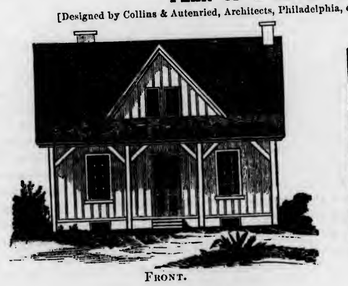
I AM so much pleased with this plant, that I wish to call the attention of your readers to it. It is truly, both in the size, beauty and fragrance of its flowers, and the striking appearance of its gigantic foliage, one of the finest, if not THE finest variety of this patrician family. It is said to be a seedling from the *alata*, and resembles it in the general shape of its flowers and habit of its growth. But the flowers are very nearly double its size, and the colors of the inside of the petals and calyx are a much richer color, being, in fact, crimson, which forms a fine back-ground for the purple and blue nectaries or crown. I send you a photograph from a flower taken from a plant grown in a sixteen-inch pot, but which has already covered three rafters in a large stove. This flower measured, when fully expanded, over *six inches* in diameter, and next season I intend to plant it in the ground under the stage, when, no doubt, its flowers and foliage will be larger. The leaves are now fully ten inches long, of a light brilliant green, and of a leathery texture. It requires strong nourishment, with frequent waterings of manure-water when growing, which must be gradually lessened as its flowering season approaches. The flowers (which should be cut during the forenoon and put in *cold* water and in a cool place till wanted) will remain expanded as long as the *alata*, which is a great recommendation to it. The new Passiflora Gontierii, which has not yet bloomed with me, I see, by the recent accounts from France, is objected to on that ground, its flowers only remaining open a few hours. I would like to know whether any of your readers have flowered it, and if so, what is their experience with it?

Yours very truly, A FLORIST.

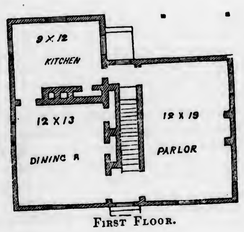
[THE flowers of most of the Passifloras remain expanded but a short time singly, but they are reproduced over so long a period, and furnish such an abundance of flowers, as to render them highly desirable in any collection, and any information in relation to them will be very acceptable.—ED.]

PLAN OF A CHEAP COTTAGE.

[Designed by Collins & Autenried, Architects, Philadelphia, expressly for the Gardener's Monthly.]

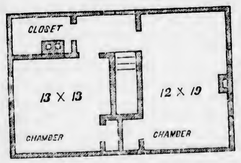


FRONT.



FIRST FLOOR.

FLANK.



SECOND FLOOR.

This sketch has been prepared merely for the purpose of giving some hints to those who contemplate the erection of cottages of small cost. This plan is so simple as to require but little explanation. The frame should be of hemlock, and the outside weatherboarded. When building materials and wages are about the same as in this vicinity, this house can be erected in a plain way, and with a cellar under one-half of it, for about seven hundred and fifty dollars. All ornament to the exterior has been carefully excluded, but can be added if required.

SALT AS A FERTILIZER.

BY A. C. P., BALT., MD.

ON this subject your Specimen Number contains an article, which encourages the application of this mineral for horticultural purposes. Having experimented in the same direction several years ago with rather contradictory results, I will here state my experience, if for no better purpose, perhaps, than to draw from abler heads a theory *when* and *where* this material should be applied.

Early in spring, 1855, I planted three new beds of Asparagus adjacent to two older beds, and when they were finished, gave all of them—the old beds as well as the new—a liberal mulching of spent salt, such as provision packers furnish, and which contains much animal matter in addition.

The result of this application was, that the old Asparagus came up that spring very vigorous, and after a rainy spell in July of the same year, gave me a *second* crop; but the *new* beds did not as much as show a single shoot, and when I examined the roots, which when planted were healthy and strong, two years old, found every one *rotted off*.

But this is not all. The spring following I renewed these new beds, the soil of which I threw out, and planted the roots in new compost, when they came up well enough. The soil thrown out, and containing the salt, I had spaded under adjoining the Asparagus beds and therein sowed three beds of Carrots; as far as the salt extended in them—say the two beds next to the Asparagus—turned out complete failures; the seed did not even germinate; the third bed farthest away from the Asparagus, and having the least of salt incorporated, furnished a fair crop.

How do you account for these results, so entirely different? Can it be, that for plants in a *growing* state it is wholesome food, and for *dormant* roots and *seeds* it is a caustic?

This is the conclusion I have arrived at. I am aware that for Grass lands and lawns a top dressing of salt is highly beneficial; but at the same time, that a good sprinkling of the same material in *walks* will effectually *kill* the weeds and grass growing there.—What dose, then, is *safe* to apply? and what particular season would you recommend for the application? If applied in the autumn, would the salt during severe winter weather not *increase* the destructive power of frost near the roots of plants and trees? This is a conclusion analagous to the known properties of salt, as applied in ice-cream freezers.

With a good supply of refuse salt always at my command, I would like to treat my fruit-trees and grape-vines to this stimulant, but with my present experience, feel hardly justified to risk it. Can you or any of your readers furnish a guide?

A. C. P.

BALTIMORE COUNTY, Md.

[THE observations of our correspondent confirm the ideas we expressed in our Specimen Number as to the nature of the action of salt in promoting the growth of vegetation,—namely, that its advantage is more owing to its hydropical property or power of imparting moisture to the soil, than to any peculiar value of its elements as a so-called fertilizer. With this view, it may be laid down as a rule that salt should never be applied, except when it is advantageous to *add moisture to the soil*. When plants are at rest, an increase of moisture is of no value, and, as it would seem in our correspondent's instance, at times highly injurious.

We shall be glad if our friends will follow up their observations and give us the result.—ED.]

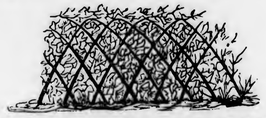
The Gardener's Monthly.

PHILADELPHIA, FEBRUARY 1, 1859.

GRAFTING—SEVERAL HINTS.

The grafting season will soon arrive, and those who have it to do, and are yet not thoroughly acquainted with every nice point on which practised operators rely for their great success, should be on the look-out for every hint for improvement. One of the chief things to be careful of is, to see that the inner barks of the scion and the stock meet at their edges. Practised hands know exactly how to set a scion so as to effect this almost instantly, but novices more frequently fail to secure this essential point. Until well practised, a certain mode of effecting this is by setting the upper portion of the scion a *little in* towards the heart of the stock, and the base of the scion a *little out* where the scion and stock cross each other, the meeting will be certain. We have seen parties succeed thus who have had but indifferent success when attempting the general way. The annexed cuts will explain the idea. *E* shows the inclination of the scion; *F* the projecting part.

So many objects of interest may be added to our gardens by a little ingenuity in grafting, that it is surprising that more attention is not paid to the subject. Natural arches may be made over the entrance to walks by planting two trees of any desirable kinds together, and inarching them over at the top; and in orher parts of the garden where an arch would be effective for any purpose, such a result could be thus obtained. So, also, natural arbors and fences may be made to look very beautiful, out of very simple materials, by simply grafting or inarching together the same or different plants into various forms and shapes. A friend, who has recently been travelling in Germany, and who is pretty well versed in the various phases of American gardening, assures us, that in no respect, was the difference between the tastes of the two countries so distinctly marked, as in this respect. In Germany almost every garden had some peculiarity of interest by which it could be distinguished, and a feeling of newness was thus excited in each successive place, which contrasted strongly with the sameness which most of our gardens exhibit. The annexed cut represents a fence made of willows inarched together, both where they interlace and where the points meet at the top. It is formed of the White Willow, (*Salix alba,*) and is one of the forms of such fancy hedges very frequently met with. Such a screen would probably grow very strongly from the top in our climate, but could easily be kept in check by two or three vigorous summer-prunings of its topmost branches.



We are too apt to consider these fancies as originating with an uncultivated taste for mere curiosities or monstrosities, and too much on a par with five-legged horses or the Siamese twins. Undoubtedly they can be pushed to extremes; but the possessor of true taste knows how to avoid extremes in any case; and in grafting, as we have suggested, he will know how not to err. If some useful object be aimed at and expressed by the operation, few mistakes can occur. In this, as in many other horticultural operations, the true test of beauty and taste will be the relation between the object aimed at and the means employed to produce it. For instance, a friend of ours has a *Magnolia tripetela*, around and within 6 feet of which his German gardener planted five other Magnolias, and inarched their tops into the central tree, about 5 feet from its base. This having been done about fifteen years ago, has lost all traces of its artificial origin, and excites the astonishment of all the uninitiated. But beyond the momentary surprise to a stranger, the tree possesses no other interest, unless it be the fact that the process has made the head of the tree grow with unusual and remarkable vigor. But if the outside trees had been planted a little further off, and made to unite with the main stem higher up, a fine natural arbor would have been the result, embowered in its own umbrageous foliage, and affording a pleasant retreat for many a grateful admirer of the genius that planned, and the art that executed, so pleasant a resting-place.

There is yet another idea in connection with this subject of grafting, which we cannot let our readers forget. Most of us in our gardens have some handsome specimen of an Evergreen or other tree, on which we set great store. We have, perhaps, nursed it into a pretty shape, and trained it into a form so beautiful, that no money could buy or any temptation induce us to part with it; but in an evil hour the enemy cometh—even a horned one, in the shape of a cow,—perhaps a snow-storm,—or, more anger-stirring still, some ignorant laborer,—and the branches are broken and its matchless beauty lost. It very seldom occurs to the unfortunate owner of such a tree, that, in most cases, its beauty may be restored by grafting or inarching a suitable shoot or branch into the defaced side. If the tree to be "repaired" is an evergreen, and some large branches broken, the best plan will be to plant another one near by, and in such a position that a selected branch shall cross the trunk at the place required, where it can be readily inarched. A fruit or deciduous tree can be easily grafted, if the injury is not too extensive; but when it is severe, another may be planted by its side for inarching, the same as already suggested for evergreens. Sometimes a branch may be bent from some other part of the tree, and introduced into any desired part of the stem, where shoots could not otherwise be easily obtained. This is very often practised in making the beautiful forms of pyramid Pears for which the French are so famous, and which we might often try in vain to produce by the knife alone. The annexed cut will perhaps better explain the mode of doing this.

The cut represents a tree pretty well furnished with shoots on all sides but one,—that shown on the right hand. The branch F is bent in to the trunk at A, and inarched, and thus the branch B is produced. After it has been about a year or so attached, it is cut off below the point A, and then commences on its own account a separate existence.

In inarching, as generally employed by gardeners, it is usually the case that the part to be inarched is about the same size as that which it is to be inarched with. In that case, the mode of procedure is to shave off a portion of the bark of each, cutting each surface to about the same degree as the other, and fitting them together as nearly as possible, after which the two are held firmly in their places by being tied together. In the case of a branch of a tree being led into its own trunk, it is obvious, from the difference in the relative thickness of the bark, that such a mode could not be easily executed. The plan generally adopted in such instances is, to cut a groove into the trunk, as shown in the annexed sketch at B, into which the

scion, cut as represented in 6, is inserted, after which they are bound together. It is a good plan to take out a portion of the bark, a small part of the way round the stock, and immediately over the groove made for the scion, as the sap from the stock is checked somewhat in its attempts to rise in its natural channel, and is thus thrown into the scion. A union is found to be much more rapidly, and much better made when this little nicety is observed, than when it is omitted. This will be easily understood by reference to the cut, where A represents the circle of bark taken out.

So many other ideas crowd on us as we write, suggesting so much that we think either forgotten or not appreciated by our cultivators in the matter of grafting, that we very reluctantly lay down our pen, regretting that, large as our *Monthly* is, we can afford the subject no more space in the present number.

NEW WEEPING WHITE PINE.

We have received from one of our obliging Belgian correspondents a drawing of a new weeping white Pine, which, he informs us, has recently been figured and described in one of their periodicals, and is creating quite a sensation in arboricultural circles. We append what he says of it, and trust our importers will be on the look-out to introduce it. The white Pine does so well almost universally with us, that this variety will not fail to be one of the most valuable things ever brought to our notice. As a cemetery plant, nothing could possibly be more appropriate; and the many circumstances to which the landscape gardener could appropriately adapt such an evergreen will readily suggest themselves. Of its origin our friend says:

"Six years ago M. Heinbourg, of Mayence, detected this kind in a bed of seedlings of *Pinus strobus*. I cannot learn that any have yet been propagated for sale, but when it is, I hope to be amongst the first to possess them. M. Heinbourg is not in the Nursery trade, but he is very zealous in arboricultural matters, and I have no doubt that if he has not already permitted some of it to be multiplied by other parties, he will ultimately be induced to do so."

APPLE PIE MELON.

In our January number we noticed this new fruit as being a valuable acquisition to our gardens, and, when cooked, as being a very close imitation of stewed Apples. We extract from the *California Farmer* a very minute description of the mode of cooking it:

"The famous Apple Pie Melons, as they are called, and which have excited considerable interest among the lovers of good apple pies, from the fact that this melon makes good pies, will prove a great blessing to all good housewives, for they can have apple pies all the year round, and not have to pay a dollar, or even two bits a-piece, for they can make apple pies without apples; we only assert what is easily proved—this variety of melons will make pies that nine persons out of ten will pronounce apple pies. Two years ago, we had two or three melons presented to us. The pies we ate of these melons, at various times, satisfied us of the facts stated. One of these melons we now have, in perfect order, weighing 45 pounds. Thus we have a valuable proof of their keeping qualities. To prepare them for pies, peel and cut up the melon small, taking out the seeds, soft pulp, if any, &c.; put them in a preserving kettle, with just enough water to keep them from burning, and stew over a tolerably brisk fire for three or four hours, or until the whole is reduced to a soft pulpy mass, free from lumps, and thoroughly done; then, by adding a little sugar and lemon-juice to it, and making up with crust in the usual way, it is impossible to tell it from a fresh apple pie. If you desire a *pumpkin* or *custard* pie of the melons, stew as above, but omit the lemon, and bring the pulpy mass to the proper richness and consistency by the addition of sugar, milk, and eggs. Little of either of these ingredients will be found necessary—only sufficient to give the melon color and flavor."

FLOWERING SHRUBS.

It is a prevailing impression that gardening in our country, as compared with other countries, is not popular; and it has become a common theme with a certain class of writers, who can see nothing in all the objects of American life but a constant pursuit of vain show and dollars. That there is just enough of this weakness to give plausibility to the jeremiads of those whose natures fatten on universal grumbling and discontent, no one will deny. But we are not prepared to admit that, as a general thing, there is less real love for gardening existing with us than in any other country.

On the contrary, we assert that, in no other part of the world is so much money spent on gardening in proportion to the number and density of its population and its national wealth, as in the United States. We have not, it is true, the mammoth establishments of Northern and Middle Europe, to any great extent; and consequently the superior knowledge and skill which is so requisite in an European gardener, and for which he is so famous, is not so often called for; or, when desired, as fully appreciated. But when we look at the money actually spent on gardening, who will say the taste for it is dormant with us?

We should like to see some reliable statistics of gardening, on which we could form some approximation to the exact amount spent on American gardening. We have collected a few figures of the amount spent in grading, improving, altering and fixing up generally around the new villas and residences within a range of about twenty miles round our city for the year which has just terminated; and in spite of hard times, we have no doubt that nearly a quarter of a million of dollars has been expended in this way, to say nothing of the amounts paid for maintaining those laid out in former years. Not a village or post-town in the country of the smallest importance but has its nursery or fruit-garden, and all, too, pretty well encouraged.

We always feel a great deal of pleasure when we reflect on these facts, and picture in the not very remote future the proud distinction of a nation of horticulturists, which we shall undoubtedly claim.

Our chief regret in connection with these encouraging circumstances,—and it is one to which we wish particularly to direct present attention,—is that this money is, in a great measure, wasted by not being understandingly employed. Fully as much is spent in spoiling places and working to disadvantage as in really ornamenting and improving. Too much by far is spent in shaping and grading the soil, instead of improving and embellishing its surface.

Instances come continually before us of residences built on some gentle eminence, with the ground sloping beautifully away from the house in every direction,—adding in that way to one of our most pleasing sensations, namely, "breadth of view,"—that are brought to nearly a dead level by the enterprizing proprietor spending some hundreds of dollars to have the surface filled up to a *beautiful* grade, just enough to carry the water away from the house.

There are so many ways by which a place may be cheaply adorned, and made to look as well, or even better, than some others in which a small fortune has been literally *sunk*,—sunk to rise no more,—that it is hard to select one as being pre-eminent. But we desire in this article more particularly to call attention to one of them, viz., the employment of *Ornamental Shrubs*.

We have for a long time been impressing on our friends the advantages of planting belts and borders of these thickly about their small places,—and it is amusing to listen to the arguments persistently brought up in almost every case against the proposition. Our rhetoric has often succeeded where our logic failed; and many who were not convinced, nevertheless allowed themselves to be persuaded into the experiment. Not in a single instance that we remember, can any owners of such belts and masses of shrubbery be induced to break up the arrangement or abandon the idea. The place looks larger; becomes more cheerful; affords blooming and fragrant flowers all the season through; and the "lawn"—that loved and cherished little green spot, for which, it would seem, alone, the proprietor and his family abandoned the conveniences of city life—appears to be actually increased in extent by the space the shrubbery has subtracted from it.

We admire borders of herbaceous plants, filled with flowers of every form and hue, and edged with its prim, straight belt of box edging,—privileged strips of ground, reserved from less refined uses to be the favored spot for hotbed-raised annuals, and plants which require other modes of yearly renewals,—geometrical forms and ribbon beds, embroidered in green,—Nature's emblem of human gold,—filled with the choicest productions our greenhouses can furnish of the floral treasures of foreign climes,—these, one and all, give to every place a charm of which we would not by any means seek to deprive it of. But the shrubbery is a permanent affair,—one of the "institutions,"—and not only a "once for all" operation, but one which, like money well invested, increases in value every day. From early spring to late in the fall, or early winter, some one or other of them, if judiciously selected, will offer you its floral tribute; and for the one spike or bunch presented you this season, it will prepare a tenfold increase the next. We know many persons who perhaps four years ago paid their trifle for *Weiglia rosea*, or *Pyrus japonica*, with its handful of flowers; and who now could not be induced to part with them and their hundreds of blossoms for ten times their cost.

To guide our readers in making a selection that will afford flowers all the year round, we append a list of all the leading kinds of shrubs, as they bloom at the different seasons, and the colors of each:

Spring.

Double flowered Almond, pink; Double flowered Peach, white and rose; Common Berberry, yellow; Purple-leaved Berberry, yellow; Sweet shrub (*Calycanthus floridus*), crimson; Mezereon (*Daphne*), white and pink; *Deutzia gracilis*, white; White jasmine (*Jasminum officinale*), white; Early yellow (*Jasminum nudiflorum;*) Late yellow (*J. fruticans*); Large yellow (*J. revolutum*), hardy only south of Philadelphia; Privet (*Ligustrum vulgare*), white; Double-flowered crab (*Pyrus spectabilis*), pink; Chinese quince (*Pyrus japonica*), scarlet; Missouri currant (*Ribes aureum*), yellow; *Spiræa prunifolium*, white; *Spiræa Reevesii*, white; Double white do.; Golden bell (*Forsythia viridissima*), sulphur yellow.

Summer.

Indian Cherry, or Snowy mespilus (*Amelanchier botryapium*), creamy white; Black Haw (*Viburnum prunifolium*), white; Dwarf Horse Chestnut (*Pavia macrostachya*), white; Tea shrub (*Ceanothus Americanus*), white; White Fringe (*Chionanthus virginicus*); Great Dogwood (*Cornus Florida*), white; *Corchorus japonica*, yellow; Red volkameria (*Clerodendron Bungei*), red,—this is rather new, but we notice it already in several catalogues. We believe it to be perfectly hardy; and its large red bunches of sweet-scented Hydrangea-like flowers will render it extremely popular. Scotch Broom (*Genista scoparia*), yellow; *Deutzia scabra*, white; Althœa, or Rose of Sharon, several colors; Oak-leaked Hydrangea, white; *Itea virginica*, white; Chinese varnish (*Kolreuteria paniculata*), pale yellow; Crape Myrtle (*Lagerstroemia indica*), pink, hardy south of Philadelphia on dry ground; *Magnolia purpurea*, purple; Tree Peony, pink; Sweet-scented Mock Orange (*Philadelphus coronarius*), white; Large-flowered do. (*P. grandiflorus*), white; Green Fringe or Mist Tree (*Rhus cotinus*), green; Flowering Raspberry (*Rubus odoratus*), pink; Rose acacia (*Robinia hispida*), rose; *Spiræa salicifolia*, pinkish white; *S. tomentosa*, pale pink; *S. Douglasii*, deep pink; Lilac, blue and white; also Persian do., blue and white; Tamarisk, pink; Snowball (*Viburnum opulus*), white; *Wiegelia rosea*, rose; Cornelian Cherry, yellow; Azaleas, hardy Belgian and American, all colors,—white, pink, red, crimson and scarlet; Tartarian Honeysuckle, pink; Fly Honeysuckle, white.

Autumn.

Indigo Shrub (*Amorpha fruticosa*), purple; Bladder Senna (*Colutea arborescens*), orange; *Clethra alnifolia*, white; Burning Bush, for their berries, European (*Euonymus Europæus*), pale pink; Purple-flowered (*E. atropurpureus*); Kalm's St. Johnswort (*Hypericum Kalmianum*), yellow; *Prinos verticellatus*, for its scarlet berries; Snowberries, red and white; *Spiræa callosa*, pink; *Spiræa Billardii*, rose.

There are, of course, many other shrubs with beautiful forms, fine foliage, or possessing some good quality for special purposes. We have confined ourselves to such as have *handsome flowers*, adapting them to purposes of ornament and gayety. They are mostly all of easy growth, and thrive as easy as a currant-bush in any garden soil.

In planting shrubs in belts or masses, they should be set much thicker than they are intended subsequently to remain, in order to reap the advantage of an immediate effect. As they grow too thick, they can be easily transplanted to other places where they will be effective.

It is also a good plan, if there be any small corners that are not exposed to general observation on the premises, to set in a few cuttings of most of the shrubs that give the most pleasure. In a pecuniary sense, "it will not pay," as no man can do any thing so cheaply as one who makes a business of the thing,—no matter whether it is raising a tree, or cutting out a coat; but for the pleasure of it,—and it is for pleasure that gardeners are called into being,—every lover of a garden should raise something. We may admire, nay, love, a plant intensely when we feel that it is our own; but when, in addition, it happens to be a creature of our own raising, the affection is immeasurably increased. We may love an adopted child, but never with that intensity of feeling we have for one naturally born to us.

Wiegelias, Honeysuckles, Deutzias and many others will root very well if cuttings are put in soon after the frost is out of the ground. Pieces of last year's growth, of about three eyes, should be selected, and set in about two-thirds of their length in the soil.—A little practice will soon teach the amateur how to be successful with them.

EDITORIAL DIFFICULTIES.

The following, from the *Cottage Gardener*, is too good to be lost. *Our* readers are more reasonable, and as yet make no complaints; but we can commiserate the lot of those editors who "are never at rest."

TO OUR READERS.

"Nothing in the universe around us is at absolute rest," is an axiom in physics to which an Editor, above all other men, yields a ready assent. Nothing is ever at rest with him. Compositors, correctors, contributors, pressmen are moving in regular orbits around him; and many a correspondent shoots across his system, resembling the comet, now so commanding of notice, not only in eccentricity, but in fiery aspect.

"Last week I sent you a query, and I repeat it; if it is not answered next week, I shall cease subscribing to a periodical so regardless of my interest."—"Why do you not devote more attention to bullfinches?"—"Pray give a report of the Fuddly-cum Pipes Floral Exhibition."—"You insert many advertisements, but none about churns."—"Cannot you reduce your price?"—"You ought to increase the number of your pages."

These are only a very, very small portion of the suggestions received weekly, adding to the testimony, that "nothing is at absolute rest" about the Editors of "The Cottage Gardener."

Like Charity,—and needful is it that they should be very like her,—"they suffer long, and are kind;" give a soft answer to all assailants; and, though remembering that Charity begins at home, they are careful that it shall not end there.

They obtain information about bullfinches; they show that, if they reported one local show, they could not refuse to report the show of every Fuddly-cum-Pipes throughout the United Kingdom; they seek for a knowledge of churns, and hope that it will add to the butter on their bread; and, although they cannot reduce their price, nor add to the number of their pages, they have largely increased their contents by widening their columns.

In our endeavor to get as much as possible of the letter of our Kew correspondent (Mr. Tyerman) into our last issue, we should not have omitted the passage in which he gives "Hooker's Botanical Magazine" as the source from whence his descriptions of new plants were taken. It is our wish, as it will be our endeavor, in all cases, to give full credit to whom "honor is due."

PECULIARITIES OF THE RASPBERRY.

THE following article, by Mr. Errington, one of the best English practical gardeners, is from the *Cottage Gardener*, and contains many new and valuable suggestions for the perfect culture of this fine fruit. Unlike many English modes of practice, Mr. E.'s remarks are the more applicable here, where our summers are still drier than in England:

"The difference between a good crop of Raspberries and a bad one is enormous. In the one case, a few lean, half-starved stems, surmounted by a tuft of half-sized, half-flavored fruit, the mans beneath giving no return; in the other, an uniform amount of finely-developed foliage, and bouncing, luscious fruit, from the bottom of the stem to the top. And how is all this to be accounted for? By ignorance of the plant's habits and aptitudes in the first place, and the want of high cultural principles in the second.—There are two things as to their habits, to which I would particularly draw attention,—their love of a permanency of moisture, and their extreme aptitude for rooting near the surface. On these two then, as pivots, their general culture should be founded.

"As to soil, any unctuous kind will be found suitable, that is to say, one of somewhat strong loamy character. I have generally known them succeed best in a darkish-colored soil, which was what might be called rather greasy after rain. In speaking of the tendency to produce surface roots, I did not mean to the exclusion of strong roots beneath, for such are ever found in the Raspberry. But, in proportion as surface culture is promoted, so in like proportion will the plant betake itself less to those wiry and deeper roots. About three or four years since, I formed an idea that they would be better cultivated in a trench, like Celery. I had found that piling surface-dressings above the ground level, on our sandy toils, did not fully accomplish what I had intended,—the manures however moist it might be applied, becoming dried in hot weather. This trench system I have carried out, and find it excellent. The mode of preparing the ground is this: a trench is excavated nearly a yard in width, and about half a yard in depth; on this excavation is spread half-rotten manure, and on this the Raspberries are set, and a slight coating of rotten manure spread over their fibres; soil is then added, but only a little; and, after the planting is over, the whole is at least six inches below the ground level. Here, then, is a ground level, or receptacle, for future top-dressings, without raising above the surface of the soil; for I find by experience, that about two, or more, inches of manure, spread over their roots annually, or biennially, subsides into a bare inch in the course of the year. We may here see that Raspberries planted thus are always in a position to receive and retain the rains of summer; and, although such a course may be impolitic on wet soils, yet I may, I think, aver that two-thirds of the Raspberries in the country would be benefitted by suh a procedure. It will be seen that my purpose here is not to say all that might be said of this useful fruit, but, agreeably to the heading of my remarks, to show forth a few features which I deem peculiar.

"Let me, then, direct attention to their aptitude for surface roots providing inducements are held out to them. It is surely too late in the day to use much argument to persuade good people, who possess gardens, that surface fibres, as they are called,—albeit a misnomer,—are of immense importance to all fruit-bearing trees. Now, if any mere tyro was to look into such a question for the first time, he would at once suppose that surface fibres signified roots rising above the ground level; and, indeed, in the case of the Black Currant and Raspberry, they doubtless would, could we keep up a perpetual fog, or watery mist, during May and June.—But the alternations of drought check these aspirants for the treasures of the atmosphere, and, like bees venturing too far from home under untoward circumstances, hundreds perish by the way.—Nevertheless, this must not frighten us from the principle itself,—it is only suggestive of caution. What I want to prove is, that these fibres, or bundles of fibres, just under a nourishing medium, are of more importance than the meagre and 'beggarly account' of fibres, by which deep and stringy roots are terminated,—and that they differ in their mode of working, as also the conditions they are placed under.

"But let me now pass on to the natural habits of the Raspberry, as evinced in its above-ground growth. The first thing that strikes us, is its prodigiously prolific character with regard to its progeny. We have in some cases a score or more suckers, where only five are ultimately required. But these suckers must be understood to be robbers in a certain sense; yet, since the Raspberry is renewed and brought into a kind of new existence by means of these suckers, we must see what can be done with them. Our readers may rely upon it, that every sucker detracts, not so much from the parent stool immediately, but from the virtues of the soil or compost around the original stem. Therefore, let every one who can spare time, pull away every sucker not wanted, the moment they can fairly handle them, and they may rest assured that they are removing what would ultimately detract from the fruitful bush.

"Let me now pass on to another feature of importance in Raspberry culture,—the mode of pruning. Although I would not give an over-prominence to mere pruning matters, there is a feature in this which, I think, well deserves particular notice. We all know that, by the old practice, it was common to reserve from four to half-a-dozen canes, and to prune them about the same length. The effect of this has ever been to produce a series of sprouts all in one part, while the other portions below were entirely of a negative character. In practice, I know this to be a great error; but why, in the name of common-sense, must this be so? Shoots should be left about five feet high, say the old writer; but they say nothing about the graduation in height. But, if we possess four good and proper canes, and one is left five feet, a second four feet, a third three feet, and a fourth thirty inches, is it not obvious that this mass of canes must be clothed progressively, and that a greater equalization of young spray must be the consequence? It is so. But I do not insist on the precise heights here given,—that must ever depend, in some degree, on the character of the canes. Let, then, those who choose to push the cultivation of the Rasberry consider this matter, and just see what is generally termed common sense. Such is not unfrequently of more immediate use than even science itself, strange as it may appear."

PARADISE AND DOUCAIN STOCKS FOR DWARFING APPLES.

WE were a little surprised recently at a correspondent inquiring where he could procure *seed* of the Paradise Apple; but on reflection, it struck us as remarkable how very few nurserymen, who even have been handling these stocks for years, know of their origin.

The Paradise Apple is but a variety of the common Apple as the Baldwin or Newtown pippin, but of a dwarfish habit of growth, and like these or any other variety, has to be propagated by other means than the seed to maintain its character. The Doucain is also a variety, but of a little stronger habit of growth.—These are raised by off-sets in the French nurseries. The old shoots are cut down to a few inches *under* the surface of the ground before the leaves push, early in the spring, and the fall following are taken up and the numerous rooted off-sets taken off as separate plants. A few other nurserymen, however, have a *secret* way of raising them, which we will divulge—*sub Rosa*, of course—to our readers, for their special benefit.

About the month of March they prepare a hotbed of stable manure, not very deep, two or three feet, more for the purpose of maintaining a slight humidity without watering, than for any other reason. This hotbed they make under a board fence, south wall, or other sheltered place. Then the fleshy roots are cut into pieces about an inch or two in length,—a few inches of soil is put on the manure,—then a half inch of soil; then over the whole bed a very thin layer of straw, which keeps them regularly moist. As soon as the warm weather comes, they sprout like Peas, and make fine plants by fall. In another column we give, from the *Valley Farmer*, some account of what they are afterwards brought to when they have been imported here.

GRAFTING THE VINE.

IN another part of our paper we have given a few ideas on grafting, which we penned down as they occurred to us at the moment of writing. We wished to say much more, till the length of our article admonished us to cease. But we refer to it again on account of the important subject of Grape grafting, which is so little understood, and yet which, if more were known of it, would prove very valuable to many, who can thus soon get a strong and vigorous bearing vine from a comparatively weak and feeble shoot.—Not only this, but some of the newer kinds do not seem naturally to grow so rankly as some of their wild and foxy progenitors; and all such might be vastly improved by being worked on some luxuriant growing variety. The season in the South is now drawing so close for the successful performance of the operation, that we cannot let this month go over without describing one of the best processes known to us for succeeding readily in this, as usually performed, precarious operation.

The first thing to care for is the scions, which must be selected from as strong and as well-ripened wood as can be procured, and be cut off at once to be preserved for grafting, which must be done just after the buds of the stock have started in the spring. After the shoots have been cut off and reduced to lengths of about a foot or so long, they should be buried nearly their whole length in the soil in the open ground, to remain there till wanted.

When ready to commence operations, if a choice of plants to be operated on can be had, select those which at the ground are about half an inch in thickness, and remove the soil about it to the depth of two inches or more, and head off the stock about one inch below, with a clean cut, at an angle, and then make a vertical slit down the heart of the stock from the middle of the cut, and across its face.

Then choose a strong scion of about four or more eyes in length, and if provided with a portion of two year old wood at the base, so much the better. A cut should then be taken from just above the third eye from the top, and continued until it nearly reaches the second eye, penetrating about two-thirds the depth of the scion. The tongue thus formed should have its bark slightly shaved off on the back, so as to flatten it a little, and then be inserted in the stock, as represented in the annexed cut; after which it should be bandaged and waxed over. The two outer barks must, of course, meet, as in any other kind of grafting. After all is completed, the soil may be filled in about the root, covering up the whole, except one bud, which will appear just above the soil. The sap of the Grape vine is very watery, and, in contact with the air, it will prevent the union of the stock and scion,

—care will, therefore, be required to see that the waxing is properly done. A long heel is left to the scion for the same reason, as the exudation of watery matter is kept away from where the union is desired.

This mode is employed extensively in England for grafting Pines, and is one of the best in any case where a sappy exudation is likely to defeat the end desired.

MANAGEMENT OF THE MANCHESTER BOTANIC GARDEN.

MANCHESTER, ENGLAND, Dec. 30th, 1858.

IN answer to some questions, to a friend in England, we have received the following:

IN compliance with your request for information as to the management of some of our English Botanic Gardens, I send you the following in regard to the Manchester Garden, and hope soon to be able to furnish you with more.

A Committee of Management is chosen from the shareholders. They have full power and jurisdiction while in office to rule the Gardens. Each member or shareholder pays the sum of twenty-one shillings per annum, which gives him the privilege of voting at the election of members; this payment also admits the party to the Garden on all occasions, free of any extra charge. On exhibition days non-subscribers are admitted on the payment of two shillings and six pence each. In order to afford an opportunity for the working classes to visit the Gardens, they are opened for that purpose on *Whit Week* or *Whitsuntide*, it being a holiday time on which very little work is done. For this admission a very low nominal charge is made, and is availed of by the thousands as a grateful recreation. There are *Promenades* held fortnightly, when a military band is in attendance to play for the gratification of those visiting; the music being miscellaneous—sometimes gay and sometimes serious. Members can introduce a friend residing seven miles distant from Manchester, to the entertainments, by the payment of one shilling for each admission. They are Gardens supported by voluntary subscriptions, as above stated, having no Government support whatever.

The gardening is managed by a *Curator*, or Manager, with a suitable number of men to perform the duties required. Gentlemen residing in the neighborhood make frequent additions to the collection of plants, in the shape of gifts, which helps to form and keep up a collection without expending the funds on the purchase of plants.

Yours respectfully, W. P.

MIGNIONETTE

MAY be grown into pretty objects by keeping all the side shoots pinched off, and encouraging the central or leading one to grow. Whenever any flower-buds appear, they should be pinched off, also. The leading stem should be trained up to a light stake until it has reached any desired height, when it may be suffered to bloom. By this process what is called "Tree Mignionette" is obtained.

WITH time and patience, the leaf of the Mulberry tree becomes satin.—*Arab Proverb.*

COVERING FOR FLORAL DESIGNS.

THE young shoots of the Norway Spruce, where they may be had, are very useful for covering the sides of floral designs. They are laid side by side and tacked, glued, or tied on. They keep green much longer than moss, particularly in a dry room. A design covered in this way which was recently exhibited at the Pennsylvania Horticultural Society, was much admired. The Norway is preferable to most of the other Spruces, on account of its brilliant green color.

BACON, in his instruction, tells us that the scientific student ought not to be as the ant who gathers merely, nor as the spider who spins from her own bowels, but rather as the bee, who both gathers and produces.

CATALOGUES, &C.

W. M. Hoyt & Co., Rochester, N. Y. Descriptive Catalogue of Fruits, Shrubs and Evergreens. This young scion of the fine stock of Rochester firms seems to have got a vigorous start. The present Catalogue contains very accurate descriptions of the various varieties of fruits cultivated.

Affleck's Southern Nurseries. Washington, Miss.—Every Northerner who wants to know what "they grow in the South," should get this Catalogue. But they must first prepare to sigh over the "Bays, and the laurustinus, and the Cape jasamines," which they may not have. But what a nuisance mere local names are. For instance, what "on airth" is the "Texas wild China tree?" "Very handsome" following immediately after, makes us feel worse about our ignorance.

Louis C. Lishy, Nashville, Tenn. Trees, plants, Roses, plants, &c. A very full and handsome Catalogue, and has also the advantage that, where a local name is given, the proper name is also given, so that parties at a distance may know what is meant. "Laura mundi," however, should be Cerásus *Caroliniensis*, not C. virginicus.

Francis & Arthur Dickson & Sons, Chester, England. A complete set of 12 Catalogues, embracing every thing. What a relief to look over a catalogue in which every name is spelled with punctilious accuracy, and every thing in its proper place and nowhere else! Cannot *our* catalogues be improved?

Richardson, Warren & Co., Wilson, N.Y. Abridged General Catalogue. They have fifty acres under nursery culture, and the Fruit department seems extensive. We notice a list of the large English gooseberries.

E. Miles, Sag Harbor, N. Y. A modest-looking List, but bearing evidence that, like the violet, there is more beneath the surface than there appears to be at first sight.

James Carter & Co., London, England. The Catalogue of Bulbs of this enterprising firm has been received. It occupies nineteen closely-printed octavo pages.

Peters, Harden & Co., Atalanta, Geo. A very neat and well got up Catalogue of a general nursery stock, of which Fruit trees seem to predominate. By the way, noticing Cupressus funebris in our friends' Catalogue, we should be glad to know who has one of the finest in the Southern States, so that in our Southern journeyings we may know where to drop "right on" one. Before it was killed here by the late severe winters, we saw enough of its beauty to give us a longing to see more.

Plant & Bro., St. Louis Mo. Vegetable and Flower Seeds. The older firm of Clark, Plant & Norris is now styled as above.

Hoopes & Bro., West Chester, Pa. Another change in a well-known name,—namely, "Josiah Hoopes,"—but apparently no change in the ancient enterprise which sends out a Catalogue of Trees that has few, if any, superiors in the States. The typographical errors are also fewer than in most catalogues. We wish we could say there were none. So complete a list deserves to be accurately given.

Vilmorin, Andrieux & Co., Paris, France. Catalogue of Flower roots and Strawberries, the latter nearly equalling in extent that of W. R. Prince.—Vilmorin offers several monthly fruiting varieties of Alpines.

Questions and Answers.

PERMIT me to ask a few questions that you can answer at once. At what age should the vine be forced to exhaust itself in bearing? Should it be permitted to bear any previous to that? What sized pots are best for the bearing year? How do *pot vines* and *border vines* do together in the same house for forcing? Which will afford the most *clear* profit,—

With my best wishes for your success, I close this communication. A. MARSHALL.

West Chester, Pa.

[WE shall bear in mind the suggestion made in the first part of your communication.

Grapes in pots are forced when either one or two years old. We have ripened superior grapes in April from eyes cut off and put in to root but fourteen months before; but this can only be done where there is a very early warm house. Where the eyes are struck in March, and only a moderate heat at command, it is best to calculate on growing a two year old cane before fruiting. Grow it as strong as possible the first season, and in the fall cut it down to a strong eye just above the soil. The following spring, after the eye has "broken," (in other words, began to grow,) shift it into a twelve-inch pot, in which it is to be grown and fruited next season. Pot vines and border vines will do well together if the latter are not suffered to occupy so much of the surface as to create a dense shade. The comparative profits have never been decided practically. The *presumption* strongly favors the pot vines. In calculating profits, beware of figures. They are often deceiving,—not that the figures are wrong, but the "cash won't balance." Some two or three pounds of grapes get into market and bring $2 per pound, perhaps. Some enterprising genius, thinking that if a few quinces make a pear-pie so good a pie, all quinces must be excellent, calculates how many thousand pounds of grapes he can grow in a given space, and multiplies by *two*, counts the cost of the space, draws a balance, and finds himself at the end of three years—in the future—a millionaire. But, lo! the rule of supply and demand has been forgotten for the more dazzling rule of three; and, instead of getting $2, he gets nearer 2 cents. Straightway he sets down grape-growing as a humbug, and gardening generally nonsense. Rule—Prices fall in proportion to production; usually prices are *below cost* for a season or two of plenty. The one who gives up at once, loses; the one who holds on, or the second who follows after the first, *makes the fortune*.—ED.[

1. WOULD not glue-gelatine, &c., cause heat in a spent hotbed of horse-droppings as well as on spent bark? Of the former we have plenty here,—ground bark, none,—some fine sawdust, if that would do.

2. Whyis it better to prune a month previous to the coming of leaves in the spring, than during the month after they are cast in the fall?

In your article on "Pruning Evergreens," you say, "If it is desired to strengthen weaker shoots by pruning, that operation should be performed very early in the spring, and as long as possible before the bursting of the buds." Now, this means, to me, the 1st of March.

3. Again, you say, "No evergreen hedge should be pruned before April, or at least two months after the cold winds are believed to be past."

This last clause means here, *very late* in spring, or last of May sometimes. I cannot quite reconcile these two directions. J. STOUGH.

Henry, Illinois.

4. P.S.—What is the best manure for evergreens?—Will heating manure do if on the surface, not dug in?

[1. YES.

2. If the tree were *deciduous*, it would be better to prune in fall than spring if we wished to strengthen; but in an *evergreen*, the tender leaves and shoots in the interior, if suddenly exposed to the severe colds and winds of winter, by having the hardier weather-beaten ones on the outside taken away, would be nearly certainly destroyed, and thus overbalance any advantage the season would otherwise afford.

3. You have mis-read our remarks—"Never prune an evergreen hedge until after cold winds are believed to be past, or at least two months before they are expected," would be clearer.

4. Depends much on the soil they grow on. As a rule, evergreens like a thoroughly decomposed vegetable manure. Well fermented stable manure is excellent in a clayey soil. We have seen Norway Spruces grow surprisingly under free applications of guano. Unfermented manures are very objectionable.—ED.]

ORCHARD HOUSES—*J. H. H., Richmond, Ind.*—We will endeavor to comply with your wishes in an early number.

J. W. ADAMS, *Portland, Maine.*—Your California biennial is Ipomopsis picta.

H. A. M., Harrisburg, Pa.—Day & Brother, Columbus, Ohio; E. R. Webb, 18 Dutch Street, N. Y.; I. G. Cooley, Norwich, Connecticut.

New Plants.

PHILADENDRON EURBESCENS.—Of the arum family. Conspicuously handsome. Spathe purplish crimsom, with an ivory-like column through the centre. Probably from Caraccas, and a stove plant.

COELOGYNE SCHILLERIANA.—An orchid from Moulmein. Flowers two inches wide, tawny yellow, blotched with red.

ISOTOMA SENECIOIDES, var. *subpinnatifida*.—A variety of a plant once well and admiringly known as Isotoma axillaris. A showy annual of the Lobelia family, from New South Wales. and will, no doubt, do well in our borders where it is not very hot or dry.

ORCHIS FILOSA.—An Alpine species of terrestral orchidæ, from Madeira; without interest to the general cultivator.

SWAINSONIA LESSERTIÆFOLIA.—An Australian plant of the pea-flowered section. The lilac and purple flowers produced in profusion. Grows only about nine inches high. A pretty greenhouse plant, and easily cultivated.

GUNNERA SCABRA.—This plant is quite a valuable addition to our collection of plants, with striking leaves for garden decoration. It was found by Darwin in Chile, where they eat the foot stalks as we do Rhubarb. Mr. Darwin measured a leaf which was nearly *eight feet in diameter*, and very much like a Rhubarb leaf, and four or five of these enormous leaves present together a noble appearance. It has stood out in winter at Kew with the roots protected. Its bloom is very singular, throwing up a long, pointed pyramid, studded with long mammillaria-like teats.

COSTUS VERSCHAFFELTIANUS.—Of the Ginger family, from Brazil. Grows about a yard high, with handsome white and yellow blossoms. Moist stove like other gingers.

SYAGRUS COCOIDES.—A small ten feet high Palm, from the Amazon. Pretty for a small stove where larger ones cannot be grown.

BRASSAVOLA FRAGRANS.—An orchid resembling B. Perrinii; but flowers larger, varied in color, and, above all, fragrant. From St. Catharines.

AZALEA INDICA GIGANTIFLORA.—New Hybrid.—Beautiful. Flowers near five inches across; bright

rose, spotted with crimson or violet on the three upper petals. The form is imperfect.

RHODODENDRON AZALEOIDES CRISPIFLORUM. — Raised by crossing an Azalea with a Rhododendron. Color, deep rose, spotted with crimson, throat white. An excellent addition.

HARDENBERGIA MAKOYANA.—Some resemblance to H. comptoniana. Will be a favorite greenhouse plant. Flowers purple, in abundance.

CHINESE PEACH. — Double Carnation flowered, large pink, striped with crimson,—as figured in Turner's "Florist," a very beautiful variety.

ANDROSACE LANUGINOSA (*Primlauceæ*).—From the Himalayas. A kind of *primrose*, with pretty rosy pink flowers. Hardy, but would require much the same treatment as an auricula.

APONAGETON DISTACHYON. (*Juncaginaceæ.*) — Cape of Good Hope. A water plant, with curious pure white, very sweet-scented flowers. Hardy when the roots are below the ice. It is not a strong grower, and might be valuable for small aquariums.

PENTSTEMON CORDIFOLIUS.—California. The *Cottage Gardener* says:

"This is one of the most distinct species of this beautiful genus, and it well upholds the character of the genus as plants of ornament; but, from the smallness of its flowers, it is less showy than many other species of Pentstemon. As it suffers from the severity of our winters out of doors, it should be continued by cuttings in the same way as most bedding plants. It prefers a good strong loam, and begins blooming in August, and lasts till severe weather checks or entirely destroys it. Cultivated in pots, it makes an excellent autumn decorator for the greenhouse."

PLATYCODON, or *Campanula grandiflora* is classed with the rare plants in the English papers. It has been some years in American gardens, and as a handsome summer-blooming, hardy herbaceous plant, has few superiors. Native of the East Indies, with large, showy, blue flowers.

LONICERA STIPULATA.—From the temperate parts of the Sikkim Himalayas. Forms a large and somewhat straggling bush, the branches with peculiar large stipules, unusual in this order. The leaves are often four inches long, with dense buff wool on the under surface. Flowers abundant, in bundles at the axilla of the leaves; berries pale yellow.

LONICERA GLAUCOPHYLLA.—Also found by Dr. Hooker in Sikkim, where it flowers in the early winter months. A slender, glabrous plant, with short axillary spikes of flowers.

The *Gardener's Chronicle* speaks highly of these two upright Honeysuckles, but fears they will not be quite hardy in England. Here, where deciduous shrubs are hardier, they would doubtless do better.

GUSTAVIA INSIGNIS.—A greenhouse shrub, of the Myrtle family, from Columbia or Guiana, about three feet high. Flowers five or six inches wide, white, tinged with rose. The shining green leaves are about six inches long. Said to be handsome.

Literary Notices.

EFFECTS OF CARBURETTED HYDROGEN GAS on a Collection of Exotic Plants. By George W. Fahnestock. Published by the Ac. Nat. Sciences.--Philadelphia, 1858.

As trees, whether for shade or ornament, are becoming "a necessary of life" to the inhabitants of all our towns and cities, any subject that bears a relation to their well-being or their detriment, becomes a matter of general and serious attention. It is a well-known fact that some trees in some cities do not thrive well; but beyond the vague expression that "they will not endure the smoke of towns," nothing further is known of the cause of their failure.

Fortunately for the public at large, though unfortunately for Mr. Fahnestock, he has had the opportunity of making full observations on the effects of coal gas on vegetation, and the result is given in the pamphlet before us.

The case is thus given:

"During the prevalence of severe cold weather in the latter part of January, and first few days in February, 1857, the earth was frozen to an unusual depth. Beneath the stone pavements in the city of Philadelphia, the frost penetrated to a depth of more than three feet. In the neighborhood of Arch and Eighteenth streets, and along both these streets for the distance of nearly one hundred yards, the escape of gas from the main pipes under the streets had been remarked for several weeks. Leaks at the joints had probably existed for months, although the porous nature of the soil had allowed the gas to diffuse itself, and find numerous vents at the surface. But the solid crust of frozen earth forced it to seek other channels of escape.

"At this time, with the thermometer ranging from zero to 10 or 15 degrees Fahrenheit, a current of gas, penetrating the imperfectly secured joints of the main pipes, made its way beneath the eastern foundation wall of the greenhouse of B. A. Fahnestock, on the southwest corner of Arch and Eighteenth streets.

* * * * *

"When entering the houses on the morning of the 1st of February, an odor of gas was perceptible, which, on examination, was found issuing in a tolerably strong current through the ground near the north-eastern corner of the greenhouse. It came up through a prepared border of soil between the wall of the house, and the flagging of the greenhouse floor. Although somewhat relieved by ventilation during the day, it was impossible to prevent its accumulation through the night: and by the following morning the work of destruction was accomplished. A choice and beautiful collection, numbering over three thousand plants, was, for the time being, almost utterly ruined. Many of the specimen plants were unique, and but rarely found in American collections. The house, which, a day or two before had given promise of an abundant succession of winter flowers, now presented the desolate appearance of tender vegetation after a severe frost. In some parts of the premises, scarcely a single plant retained a leaf or bud. By the universal diffusion of this gas through the houses, many of the severest sufferers were those farthest removed from the point of its ingress." * * * * *

No injury was in this case sustained by the roots, but in every instance by absorption through the leaves. It was very singular to observe that some plants immediately by the leak seemed to resist the noxious influence of the gas, and that kinds far removed from the source of injury were severely injured. This led Mr. F. to make notes of the different effects on different plants, and all this he has systematized, and brought into a very available form for reference in his account. He very truly observes:

"No experiment similar to that which we are about to record has ever, to our knowledge, taken place upon so great a scale, or included within its range so large a number of genera. Solitary instances have been occasionally noted in which a limited number of species have been brought within the influence of acid and inflammable gasses. Examples are not wanting, indeed, to confirm the destructive effects of carburetted hydrogen on vegetable organism. Many of the fine old elms in the streets of New Haven have been killed by leaks from the neighboring main gas pipes. Similar effects have been observed in Boston, Albany, and other cities in the United States."

Nothing can possibly be more interesting to residents in towns and cities, than to know what it is that injures urbical vegetation, and which are those kinds which are the most capable of resisting its influence. With the general recognition of the facts exposed in this pamphlet, it will become a matter of great importance to see that, in laying gas-pipes through our cities, the joints are properly connected, so as to render an escape of gas improbable. The effects on the plants as arranged in natural orders, will also assist to aid the scientific cultivator to introduce those plants into cities chiefly which are best fitted to stand out against such accidents when they do occur, and which, more or less, all cities are liable to. We wish some observer would take in hand to make observations on our trees, and note which of them are most easily affected by coal-gas. He would confer a great favor on the whole community.

From Mr. F.'s pamphlet, it appears that Ferns and Lycopodiums were scarcely injured.

The whole race of *endogenous* plants, including Araceæ, Pandanaceæ, Palmaceæ, Bromeliaceæ, Hamodoraceæ, Amaryllaceæ, Iridaceæ, Musaceæ, Zingiberaceæ, Marantaceæ, Orchidaceæ, Commelynaceæ, Orontiaceæ, and Liliaceæ, was very slightly affected, except in the case of *Caladium pictum*, which was killed outright. All the orders of Exogenous or woody division of plants in the house, comprising some seventy-five of these sections of the vegetable kingdom, were all more or less severely injured, with very few exceptions, Hoya being a genus escaping unhurt, and, strange to say, the Heliotropium another.

"Many plants of this genus were in flower. Strange to say, they were but slightly affected, and lost neither flowers nor foliage.—This seems the more remarkable, as their peculiar sensibility to the smoke of tobacco renders it necessary to remove them from the houses when fumigating to destroy the aphides, or green fly. In this instance, they grew on and flowered, entirely regardless of the destruction around them."

As a contrast to this unexpected good luck, the Camellia was very unfortunate:

"These were in the full glory of bloom. About one hundred and twenty varieties were distributed through the greenhouse, embracing many large old plants upon the upper staging. In a day or two after the entrance of the gas, not a leaf, bud, flower, or wood-bud remained upon the largest and finest plants. The leaves did not shrivel, nor did they change color. At the slightest touch, they fell off in showers. Those nearest the roof suffered most severely. A plant, which to an observer would seem to be in healthful vigor, would lose every vestige of greenness in a moment, upon being slightly shaken, and appear like a naked dead shrub. They had to be cut back extensively, some to the main stem, but the largest and noblest specimens were too much injured ever to put forth again. Others vegetated feebly, and revived slowly. The nurture of years will be requisite to restore them to their former condition and appearance."

Every one who is interested in the subject should procure, if possible, a copy of the pamphlet, as it is impossible to do full justice to it in this outline.—We believe it has been generously printed for gratuitous circulation amongst Mr. Fahnestock's friends.

Domestic Intelligence.

JAPAN PERSIMMONS.—Mr. Townsend, Consul General at Simoda, Japan, in a letter published in the *N. Y. Tribune*, says:

"The only fruit that I have seen in Japan that particularly merits notice is the kali, a variety of Diospyros, and belonging to the order of Ebenaceæ; it is really worthy of being introduced into the United States. Quite a number of sorts have been brought to me; one has a skin as thin as tissue paper, and the pulp resembles the Egyptian fig in flavor. Another variety has a thick rind, and a firmer pulp than the sort first mentioned, while the taste strongly reminds one of the flavor of the delicious mango of Siam and Bombay. The tree is very ornamental, and of rapid growth. It would, no doubt, succeed in any part of the United States south of 37° lat. Unlike the persimmon of the United States, there is very little astringency in the skin of the fruit, and frost, which matures the persimmon, greatly injures the kali.—This fruit varies in size, but is always larger than its American relative, and some are seven inches in diameter. The fruit is in season nearly three months.—The Japanese dry this fruit, which enables to keep it for some four months. When dried, it resembles the dried Smyrna fig in taste."

[The fruit here mentioned is the *Diospyrus kali*, and is frequently imported from China, and offered for sale in European fruit stores, and possibly in some of the principal ones of our own country, from whence doubtless seeds could easily be obtained. We believe they are called "Chinese dates" in Europe.—ED]

CULTIVATION OF THE PEANUT.—A correspondent, of Yolo County, who has a practical experience in the cultivation of the peanut, submits to the readers of the *Union* the following considerations in connection with the raising of this product:

"Many readers of your paper wish information as to the cultivation of the peanut. I will say, first, that it requires light, sandy soil, such as will best produce watermelons and sweet potatoes, and yet I am persuaded that the peanut can be raised on soil so dry that it will not produce either melons or potatoes. Too damp or irrigated land will not do, as the pea will (as many of us in California have done) overshoot itself. The time to plant is from the first to the tenth of April. The way to plant it is to break your ground with a harrow, to a level, then open your drills four feet apart and about one or one and one-half inches deep. The pea has to be broken, and two kernels dropped in the drill, twenty-four inches apart, and covered, as above stated, one to one and one-half inches deep. After they come up, the vine spreads out on the ground, much like the red clover. When six or eight inches long, they commence to blossom, when the vine between the rows is taken and the vine and blossoms are covered about one inch deep, leaving the ends clear. This is the first working. And again, when they have grown out again with plenty of blossoms, cover as before, until the first of August, which will make two or three workings. There is no use in covering after the first of August, as the pea will not mature.

"Now for the gathering. I generally commence the first of October. Get all the ends of the vines in each hill in your hands, and pull them up gently, and you will bring nine-tenths of the peas; turn them over, with the peas to the sun, until sufficiently dry to gather—say six to eight days—when, of course, they will be gathered and sacked."—*Sacramento Times.*

THE NEW GRAPES.—Mr. Charles Downing gives the following character to the new grapes:

Delaware—Longest tested. Not a delicate grower, as some represent. Fruit sugary, aromatic, refreshing. Never cloys, and is of the highest quality.

Diana.—One of the most vigorous growers. Begins to color and is very good to eat almost as early as the Delaware, but does not hasten to maturity as that kind does.

Herbemont.—Needs protection in winter, and will not ripen its fruit north of New York, as a rule. It gives abundant crops of delicious, spicy fruit, the berries of which are bags of wine.

Anna.—First fruited while A. J. Downing was living. Flavor reminds one of the Muscat of Alexandria. It grows much like the Catawba, and seems to resist mildew better than any except Delaware. Berries large, much like Catawba, peculiarly dotted and covered with bloom. Color greenish white, sometimes light amber. Less acid than the Catawba. Ripens as early as Isabella.

Rebecca.—Any one who tastes it will be unwilling to do without it. Mildews a little, but not more than the Isabella. Requires but time to rank as the "American Chasselas."

Hartford Prolific.—Very hardy, and ripens earlier than any grape in his collection. Not as good in quality as Isabella. Berries drop from the bunch as soon as ripe.

Union Village.—Not fully tested.

York Madeira.—Hardy, productive. "Pretty good." A few days earlier than Isabella.

Hyde's Eliza, Canby's August and *Baldwin's early.*—All probably same as York Madeira.

Clara.— Excellent so far, but not fully tested.—*Horticulturist.*

FINE CRYPTOMERIA JAPONICA.—Probably the finest in the country is on the grounds of A. C. Pracht, Esq., near Baltimore. It is eighteen feet high, as thickly branched as a Cedar, and as regular as a church-spire. It stood the two severe winters of 1855 and 56 without protection.

TYING ROOT GRAFTS.—Asa Whitney's Nursery has been visited by the editor of *Emery's Journal*. In noticing the large stock of Apples, he says:

"Very large quantities of root grafts are set annually. These are tied with corn-husks without wax and planted as early in the spring as possible. Most of our Western nurserymen now use husks in grafting; some do not tie the grafts at all. The dispensing with the wax is a decided advantage all agree who have tried both methods."

EL PASO GRAPES.—Major Williams writes from Texas:

"After passing the *Jornado del Muerto*, (meaning the 'Journey of the Dead Man,' from the tradition that the first man who attempted to cross that destitute, unwatered region, perished in the undertaking,) I met the grapes of El Paso (on the Mexican side of the Rio Grande) at every stopping-place. The blue grape, in the size of its bunches and berries, and in sweetness and delicacy of flavor, is unrivalled by any variety in cultivation in the United States. It tastes like the Isabella sweetened with loaf sugar.

"The white grape is large and delicious, and is preferred by some for the table, but is not esteemed for wine. The reason of this is, doubtless, because the blue grape is more hardy and more prolific. The white grape is going out of season, and I shall not be able to collect its seed. I hope, however, to satisfy you that we shall add invaluable treasures to our vineyards and gardens.

"The El Paso grapes are already successfully cultivated in Pennsylvania, and if the people of that State can succeed, what cannot others do who are more favorably situated in regard to soil and climate?"

PERSIMMONS, *By N. P. Willis.*—One of the first of my Virginian experiences was with the new sensation of eating a *persimmon*. By its frequent mention in negro songs, this fruit has become classic, and I was as interested in tasting it as the traveller in Italy with his first pluck at a ripe fig. It resembles a small apple, as seen hanging upon the leafless twig, though the tree grows taller and with more spready branches than an apple-tree. There were plenty of them in the fields as we drove past the corn plantations in the open country, and our friend, the conductor, kindly jumped over the rail fence and brought me a handful. What this fruit can especially be intended for by Nature I am a little embarrassed to understand,—possibly to close the gate after enough has entered,—for, of all the contractile agents, this seems to me the most pucker-y and unrealizing. The mouth and lips are drawn so obstinately together by eating a persimmon, that it would be difficult to follow it, even with "a drink;" though I am not sure that all its effects are so preventive, as the traveller, for the next mile or two after the taste of it, looks very much as if getting ready for a kiss—a kiss, however, of which, till the lips relax, the secret is very sure to be kept! Now, why would not a persimmon tree, (let me ask Mr. Gimbrede,) stamped upon note-paper, or graven on a seal, be a pretty hieroglyphic for secrecy? And why would not a *persimmon kiss*, (so called from this sweet lesson of Nature to "kiss, but never tell,") be a very handy phrase for common usage?

AN ARBORETUM AT WASHINGTON.—We have received the following from the Patent Office. Pity Congress cannot be induced to appropriate something towards so laudable an object. The British Admiralty, we believe, place their ships at the disposal of the Kew Gardens for the transmission of seeds and plants for the Garden. People would readily contribute for patriotic objects; but to have to pay express charges on their gifts, besides, goes "against the grain."

"*United States Patent Office,*
Washington, D. C., Oct. 11, 1858.

"*Sir*:—The formation of an ARBORETUM, exclusively of American trees, in our national metropolis, has long been contemplated, and the subject has often been discussed as to the most feasible plan of carrying it into effect. But as no active measures have hitherto been attempted, either on the part of the Government or otherwise, to execute the design, this Office, conjointly with the Smithsonian Institution, now proposes to take the preliminary steps by collecting, as far as practicable, and placing in the hands of competent persons in charge of the public grounds, the seeds of every species of our native forest trees and shrubs, for propagation, that would be likely to thrive in this latitude.

"As Congress has not appropriated funds which can be directly applied to the object under consideration, your aid is solicited to contribute to this truly national work by collecting the seeds of the trees and shrubs indigenous in your vicinity, packing them agreeably to the accompanying directions, and forwarding them to this office, by mail or otherwise, free of charge. Therefore it is to be distinctly understood that no collector or contributor is to receive compensation from this office for this service, but that it is to be done purely on scientific or patriotic grounds.

"I have the honor to be, very respectfully,

"Your obedient servant,

"JOSEPH HOLT, Commissioner."

DWARF APPLES.—There is no more charming object in nature than one of these miniature trees laden with large and beautiful apples. The trees will bear in three years from the bud. Any variety of the apple may be made to grow on these dwarf trees, and they generally bear larger and finer fruit than the standard trees. The dwarf apple is produced by grafting the variety you wish to raise on the Paradise stock. The trees should be planted about six feet apart, and should be shortened-in every spring.

The Pyramid apple tree is produced by grafting on the Doucain stock. It grows somewhat larger than the dwarf, and the trees should be planted ten or twelve feet apart. These dwarf trees are designed for garden culture. They do not succeed well when planted as trees commonly are, in the orchard, any more than dwarf pear trees will.

We like to see these beautiful trees, bearing their fine, large fruit, to please the eye and gratify the taste.—*Valley Farmer.*

DWARF PROLIFIC OKRA.—Some six years ago, a lady friend sent us a few seed of the dwarf okra, since which we have cultivated no other variety, and we are quite sure any one trying it will never plant any other kind. It grows only from two to three feet high, bears an immense long pod and fruits from the ground to the end of each limb. *We* are surprised so little is known of it South. We sent a few seeds of it, a few years ago, to Messrs. J. M. Thorburn & Co., New York, and this season received an order from them to raise five bushels of seed expressly for them. The advantage of the Dwarf Okra over the common kind is in the small quantity of wood fibre or stalk, and the great proportion of pods or fruit. Roasted okra seeds make a good substitute for coffee, and where the dwarf kind is cultivated expressly for seed, thirty or forty bushels may be raised from one acre.—*Cotton Planter.*

GARDENERS' CLUB.—An informal meeting of the gardeners of this city was held at the office of this paper last Thursday evening. John Perriam, Esq., was elected chairman. The object of the meeting was stated and discussed, and it was resolved that a committee of five be appointed to draft a constitution and by-laws, and report at an adjourned meeting.—The following gentlemen were named as such committee: Frank Ludlow, florist; L. P. Eastman, gardener to J. Y. Scammon, Esq.; John Chalmers, gardener to Mrs. Butterfield; J. C. Ure, gardener to Hon. I. N. Arnold, and Mr. Harmond, gardener to Hon. W. B. Ogden. The question relative to moving greenhouse plants, broached by a gardener in a recent number of *The Journal and Farmer*, was discussed informally. It will be still further discussed at the next meeting. It is especially desired that every gardener in the city should become interested in the meetings of this Club. Adjourned to meet Thursday evening, December 16th, at 7 o'clock, at this office.—*Emery's Journal, Chicago.*

NEW HORTICULTURAL SOCIETY.—A new Horticultural Society has been formed in Alabama, styled the "West Alabama Agricultural and Horticultural Society," and its field of operation is the region west of the Alabama River, from Tuscaloosa to Mobile inclusive. The officers of the new Society are: Hon. F. S. Lyon, of Marengo, President; Daniel F. Prout, Corresponding Secretary; George G. Lyon, Recording

Secretary; Dr. G. G. Griffin, Treasurer; and one Vice-President from each county. W. W. McGuire is Vice-President for Mobile.

It was resolved to hold a Fair at Demopolis in May next, and an Executive Committee was appointed to superintend the arrangements.

PROFIT OF THE FAIR.—The late Fair of the St. Louis Agricultural and Mechanical Associations was a more profitable one than either two preceding ones. The rent of the booths, under the Amphitheatre, to begin with, amounted to $6800. The entrance fees, we understand, were something like $10,000.—The receipts at the gates, from the sale of tickets and fees for the admission of carriages, we estimate at $3700 per day. This would make the receipts $39,-000. What the expenses were we have not the means for learning; but it is stated the proceeds exceeded the expenses $16,000.—*St. Louis Evening News.*

LOUISVILLE GARDENS.—The great beauty of Louisville is in its private dwellings. These are very generally built upon a plan which few cities can equal. The lots are usually large, of broad fronts and liberal depths. Upon these lots the houses are built singly, generally back from the street line, with gardens in front and on the sides. This plan makes each dwelling a flower-covered cottage in summer, at which time Louisville must be the city of gardens. Many of these dwellings are themselves very handsome specimens of domestic architecture; but the plan is so universal, that houses which in our city, by reason of their being of frame, would look mean and dilapidated, here become by these surroundings, blissful-looking snuggeries, about which poetry would say many pretty things.

APPLE TREE BORER.—The true apple tree borer, *Saperda bivittata*, is found destructive to the apple, quince and other trees, throughout the northern and eastern States. The perfect insect comes forth in the month of June, and during this month and July deposits its eggs near the ground, only on sound and healthy trees. The larvæ hatched therefrom are fleshy, white grubs, round, and tapering a little from the first ring to the end of the body. The head is small, horny and brown; the first ring is much larger than the others, the next two are very short, and, with the first, are covered with white punctures and very minute hairs; they have no appearance of legs. While young, these insects remain for a time in the bark or near the surface of the tree, and if looked after soon after they commence the work of destruction, say in August, they might be discovered and destroyed, by the removal of the outer surface of the bark where their places are marked by small, black spots. Or if the stems of the trees were rubbed with strong soap slightly diluted, about the time the eggs are laid, the application would prove destructive to them and the young insects. If the trees have been neglected until the worms have made their way into the heart-wood, it is difficult to exterminate them. We have, however, been partially successful in this, by inserting a flexible wire into the hole, and thus killing them. A thorough rubbing with the soap once or twice in the season, is the most effectual preventive, and the application will promote the health and growth of the tree in other respects.

As we have intimated above, we have never met with this insect in any but the northern and eastern sections of the United States. But we have another borer common throughout the West, quite distinct in its habits from the *bivittata*.—*Valley Farmer.*

HOLLYHOCKS.—To those lovers of flowers who object to the Hollyhock on account of the height to which the flower stem rises, we would suggest a remedy. Instead of one, two or three spikes, encourage four, five, or even six, to rise, and when they have reached an approved height, cut their tops off, and the habit of the plant will be entirely altered. If one spike is fixed in the centre, and left taller than than those which surround it, the effect is highly pleasing. Beyond this, there are many varietes naturally of a dwarf and bushy habit. Most of the leading modern kinds commence the formation of flower buds at about two feet from the ground.—*W. Paul.*

CENTRAL PARK, N. Y.—There is at the present time *only* two thousand three hundred men at work at this magnificent enterprise.

FRUITS FOR KENTUCKY.—In an excellent fruit article in the *Louisville Weekly Journal*, the following list is given, from extensive observation and experience, as the best for that State:

Apples.—White Juneating, Yellow Harvest, Caroline red June, Black Annette, Rambo, Bellefleur, Fall Queen, Newtown Pippin, Winter Pearmain, Winesap, Pryor's Red, Jonathan, Rawle's Janet, Little Romanite.

Peaches.—Troth's Early Red, Early Tillotson, Early York, Vansant's Superb, Early Newington, Royal George, Gros Mignonne, Crawford's Early, Brevort's Morris, Morris White, Rodman's Cling, Crawford's Late, Old Mixon, Columbia, Leopold, Lemon Cling, Catharine, Sweet Spanish Melacoton, White Heath, Smock's Late Free.

Pears.—Madeleine, Bartlett, Bloodgood, Belle lucratiff, Seckel, Louise Bonne de Jersey, Flemish Beauty, Glout, Morceau Winter Neilis, Passe Colmar.

Pears on Quince.—Duchess, Louise Bonne, Bartlett, Belle lucratif, Buffam.

Plums.—Washington, Jefferson, Smith's Orleans, Imperial Gage, Lombard, Coes Golden drop, Green Gage, Yellow Gage.

Cherries.—Kentish or Early Richmond, May Duke, Elton, Yellow Spanish, Black Tartarian, Napoleon Biggareau, Am. Amber and Kirkland's Seedling.

Apricots.—Early Golden, Roman, Hemskirke, Moorpark, Peach.

Nectarines.—Boston, Newington.

THE CRANBERRY TRADE IN WISCONSIN—*An Extensive Business.*—The Juneau County (Wis.) *Argus* figures the total quantity of Cranberries marketed at that point at 28,000 bushels, and the total amount of cash disbursed in connection with the traffic, $58,000. This is a very respectable business.—*Emery's Journal.*

FRUIT-GROWING IN GEORGIA.—The following extracts from a very interesting article in the *Country Gentleman*, by Mr. Van Buren, of Clarksville, will interest our readers:

"The mountain counties of Georgia lie in the north-east and northern section of the State, at an elevation of some two thousand feet above the ocean; the climate is probably not surpassed for salubrity by any in the United States; it is rarely the case that the mercury rises above 86°, or sinks during the winter below 10°. Habersham County, in which we have resided for near twenty years, is considered one of, if not the best in this section. In it are situated the far-famed Tallulah and Toccoa Falls, two very interesting and picturesque scenes, frequented during the summers by large numbers of visitors. Bilious and other fevers, peculiar to most southern latitudes, are unknown here.

"The land is rather poor in quality, with the exception of the river bottoms, which are equal in fertility to any. Our uplands produce, with poor cultivation, about twenty bushels of corn per acre, while the bottoms produce from fifty to one hundred bushels. The average product of wheat I should suppose to be from eight to ten bushels per acre, which is about the same amount that your Mohawk lands would bring with the similar rude cultivation. Very little cotton is raised in this county, the season of growth being too short for it.

"Late spring frosts are apt to cut off our crops of Peaches and Pears, while no country produces finer Apples. Our spring seasons do not open as they do with you. With you, after the disappearance of snow, it takes but a few warm days to make vegetation burst out, while here it moves on very slowly; a week of warm weather will advance it more with you than a month will here. I think there is a difference of about one month in the time of blooming of fruit here and in New York.

* * * * *

"We have but slight falls of snow here, which usually disappear in a day or two, although in 1856 we had the ground covered with it for some four weeks consecutively.

"When our fruit crops escape the frosts, they are very fine, as our trees are less liable to disease than with you. The Yellows is unknown here. Trees from the North soon recover from it when introduced, but are not as productive as our own.

* * * * *

"The Peach at the South is almost an indigenous fruit. The trees spring up everywhere along the fence-rows and about our dwellings, which bear fruit usually the third year. To be sure, the most of them are of indifferent quality, but occasionally a fine one makes its appearance. Some of the latter are of superior quality, and usually more productive than the established Northern and European varieties.

"There is one peculiarity belonging to most of the Northern varieties of Apples which I cannot understand. I have in my orchard the Esopus Spitzenberg, Newtown Pippin, Jonathan, Minister, New York Vandevere, Peck's Pleasant, Cayuga Redstreak, Swaar, and many others of notoriety with you, all of which have been growing for twelve to fourteen years, and have made a good growth, too, yet produce no fruit, I may say—not more than a dozen or half-dozen specimens to each tree annually, while all our native varieties bear good and abundant crops in from three to five years after transplanting."

GRAPES IN CALIFORNIA.—Our California friends seem to have their troubles about making "fruit pay," as well as we. Over 10,000 boxes of Grapes were shipped from Los Angeles for the San Francisco market last year. The *L. A. Vineyard* says the shipments have entirely ceased.

"For a number of years grape-growers and fruit speculators have exerted themselves to send large quantities of Grapes to the San Francisco market. We believe that we do not err in stating that the disposal of the Grape crop in this manner has resulted in an annual loss of thousands of dollars to this city.—We are not aware of any individual not a producer who has been engaged in the business, that has realized a profit from it. The rule has been to lose, and if there are any exceptions, they must be to a very limited extent.

"We are confident that producers who have sold for shipment, or who have shipped their own crop, have realized less than if they had sold to the wine-maker, or converted their crop into wine.

"The successful manufacture of one vintage into wine necessarily augments the demand for grapes, to be made into wine in subsequent years. And as the quality of wine furnished by our vineyards will only tend to increase the consumption of our classes of wine it will accordingly increase the demand and enhance the price, and this will proportionately raise the value of the Grape.

"We are informed that twelve pounds of grapes will make one gallon of wine. The average yield of vines may be placed at ten pounds per vine, and a thousand vines per acre of ground. This will give 10,000 pounds of grapes per acre, which will make 833 gallons of wine, and will, at forty cents per gallon, produce $333 for the vintage from each acre of land in vines. We believe our estimates are not exaggerated, and if not, we know of but few, if any, staple crops, which, independent of a near market, will realize as much to the tiller of the soil. Taking into consideration that the demand must increase, and that an increasing demand will enhance the value, and that there is no probability of over-production, the Grape-growing business is the best in which a man of industry and health, or a limited capital, can engage."

L. ELLSWORTH & CO.'S NURSERIES.—Writing of these, *Emery's Journal* says:

"Last spring, the proprietors of these nurseries planted over twenty bushels of apple seeds; the seed was good, and came up beautifully, and they could count their stocks by the hundred thousand; but, alas! the way of nurserymen is often hard; of all that promising show of seedlings, scarce one in a hundred is now alive, the rest having been cut off just below the surface of by wire worms. In one spot, the seedlings stood well, which Mr. E. attributed to the fact that the ground had in that place been thickly covered with purslane (Portulacca). Does not this suggest mulching? or is there something about the Portulacca that the worms do not like? We have seen plenty of young seedling apple trees destroyed in the same manner, but never did we witness such wholesale destruction."

CABBAGES FROM NEW YORK.—The Atlanta *Georgian* acknowledges the receipt of cabbages from the New York market, which sell readily at 400 per cent. advance on cost.

Foreign Intelligence.

CELERY CULTURE.—Some seven years ago there happened to be an old sawpit near the garden where I was employed. In the bottom of the pit there was a foot and a half of sawdust, which had lain there some years. I took this, and equal quantities of good rotten manure and fresh loam, to form a compost, both for pricking out and for trenches. I put about half the quantity I intended to use in the trenches at planting time. I then planted, and allowed the plants a month to grow, and then added the remaining half. I gave the plants a dose of weak liquid manure once a week, from the time of pricking out to the second time of earthing. I was so well satisfied with the result, that I endeavor to get the same materials for my main crop every season.

"I have tried numerous plans for blanching, and the most effectual, I consider, is to get some clean, fresh sawdust, and to put a handful into the heart of each plant, when they are earthed nine inches high, and repeat it every time of earthing. Snails and other things do not go down the inside when they are so treated, and the heart of the plant can push itself up, the materials being light. It is rarely that I find a rotten heart, or hollow sticks, in my crop.

The next best mode of blanching is by two pots, like half draining tiles, placed one on each side of the sticks of Celery, and tied together with string; but snails and other unwelcome guests walk comfortably down, and too frequently disfigure the hearts of the plants.—*John Hague, Gar. Groby Lodge.*

HOTBEDS.—Mr. Fish, in the *Cottage Gardener*, speaking of Bicton gardens, says:—

"There are a good number of frames, or boxes, set on dung-beds, the mode of forcing which beds I will just allude to, as being the safest and most economical, where a fair amount of fermenting material can be procured at first. I practised this mode many years ago, and could get Melons, &c., as easily by it as with a hot-water apparatus. I was rather proud to find that, without previously knowing it, our practice coincided with that now, and I suppose then, adopted at Bicton. The distinctive features of making such beds seem to be these:

"1st. Secure dryness for the bed, by a base of faggots, stones, &c.

"2nd. Have the dung and leaves well worked and sweet.

"3rd. If very short and compact, place another row of faggots, or wood, in the middle of the bed, to keep it open.

"4th. Do not build the bed too high,—from two feet to two feet and a half, or three feet at the most,—and there will be little danger of burning at the roots.

"5th. Make the bed at once so large as to have at least two feet—the more the better—all round the frame, or box.

"6th. Ere long, bank up this outside space, all round, right to the top of the frame, and keep turning it a little, and adding when required. I need not say that, whilst there is no danger of burning the roots, you can keep the atmospheric temperature pretty well at your command, and can have that dryish or moist at pleasure. We have used brick pits for early forcing much in the same way. Keep banked up to the wall plate, and you will have little trouble in turning linings, or often giving fresh ones. Protect the outside with branches, or litter, when extra cold.

THYRSOCANTHUS RUTILANS.—There is not a stove plant more worthy of attention than the subject of the present notice, whether as regards its beautiful scarlet tubular-shaped flowers, or the arrangement of the inflorescence. This plant is neither difficult to propagate nor cultivate, and may be had cheap.

The only fault it possesses is, that the habit of the plant is "leggy," according to gardening phraseology. This may be looked upon as an advantage, as, were the short growth and the plant more compact, the beauty of the flowers would be less effective.

My usual practice is to strike young plants yearly, which are of a more robust habit, and flower more profusely than older ones.

The cuttings should be taken off as soon as the plant has done flowering, which is usually about the beginning of April. They root freely in an equal portion of silver sand and peat earth, placed in seventy-five to eighty degrees of bottom heat, without the assistance of a propagating-glass, if the atmosphere be kept moderately close. When potted off, use equal parts of light loam and leaf mould, which will be found to suit them at each additional shifting.—During the growing season, a humid atmosphere and a rather high temperature are required. The plants will repay for all extra trouble.—*Midland Florist.*

[Translated from the Illustrirte Garten Zeitung.]

HEAT AND MOISTURE IN FORCING.

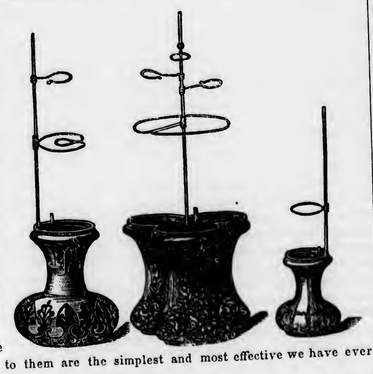
[IN looking over our recent files of German periodicals, we were much struck with the very interesting article given below, as aiding us in what we have so strongly urged in our recent monthly Hints, namely, the importance of giving strict attention to the atmospheric humidity of our plant and forcing houses. As we have so cheap an indicator of temperature in the thermometer, we are too apt to give it all attention, forgetting that atmospheric moisture and heat should go together, and be regulated the one by the other. We are sure our gardeners will thank us for getting translated for them these—as the writer calls them—"old ideas in a new dress."—ED.]

I AM an ancient sort of a man, and some people may call me old, as the winter of life has already strewn some flakes of its snow on my hair. But I feel young for all that; and in proof of it, I respond, Mr. Editor, readily to your kind invitation to play in your orchestra, as you term it. Well, if I did not candidly—though not selfishly—think that I might benefit some one by my play, I would rather stay away. There are plenty without me; and as to instruments, the shovel and the hoe are handier to me than the pen. So I write (Oh! generous soul that I am!) for the benefit of a part of mankind,—that small portion of gardeners who will listen to an *old practitioner.*

Sir, I have accumulated in me for some time an honest wrath against sundry gardening folks, and I am going to serve up my small thunder in your periodical. Our age is called the progressive one. We have all sorts of contrivances which our fathers—and may I add, mothers?—had not. Take them anywhere, from Noah to Napoleon, and what we have not got at the present moment, we are ready to invent any of these days, and shall certainly have the patents taken out for before this century gets high up in the numbers. Science is filling up, and gets firmer in the legs; there is no denying it, since it is as clear as the noonday sun; and since we not only see and admire, but feel and are more comfortable by it every day.

But—and this is the very BUT I want to shout forth—it strikes me that Routine progresses alongside of, and as fast as, Science,—very much like weeds, yet very unlike weeds, inasmuch as it does not choke Science, but simply runs parallel with it. And I feel indignant at seeing so many gardeners putting the theories of science into practice in such a clumsy way, with so little mental work, and so much bodily labor of their own,—thus bringing down the application of Science to shallow Routine. Need they won-

TYE'S HYACINTH GLASSES.



IT would be difficult to point out a more formal, inelegant form than that of the common Hyacinth glass. It compels the flower to be grown singly, and precludes by its shape all attempts t grouping the Hyacinths; and when we see them placed about on mantelpieces and in windows, we have them ludicrously associated with the miniature Poplar trees in the Dutch toy-boxes of childhood.

Nor is this formality of form the only defect of those glasses. Though made of colored glass, this admits rays of light to the roots. Now, these vegetate most healthily in darkness, and though clear glass is injurious, more or less, to their vegetating, yet some colored glass, admitting only one set of rays of the spectrum, is often still more markedly injurious.

Mr. Tye's Bulb-glasses obviate all these objections; and the brass supports adapted to them are the simplest and most effective we have ever employed.

The engraving renders a lengthy description needless. They are elegant in form, opaque, most tastefully ornamented, and are cheap. The "*Tria-juncta-in.uno*" enables three to be grown in close contact; and two of these treble vases, placed back to back, so that six divers-colored Hyacinths can be arranged together, forms the most beautiful group of this flower we have ever looked upon.

Mr. Tye has smaller glasses of a similar form, and furnished with supports, for Crocuses, Tulips, Narcissi, &c.—*Cottage Gardener.*

der if, very often, the result of their labor is the direct opposite of their aim?

Well, sir, it is they I want to benefit; for new things I have not; nor have I absolute science! But I would try to tell them old things in a new way.—And, as a practitioner, the only degree I lay claim to, I set to work practically, choosing my theme from the season. So, with your permission, I will say something about

FORCING.

To force successfully, we need moisture, soil, warmth and light. All four combined, and each of them singly in proper quantity and quality.

As it were, we cage Nature into our small workshop; we therefore cannot do better than keep in mind what we see her do in her great laboratory. It is thus that we can artificially compel Nature to work in our small shed,—it is thus we *force* creation.

Why did I put moisture foremost? Because there is no beginning to grow any thing whatever without it. You can dispense with soil, and raise several plants without it, and by water alone. But not one single plant can you raise without moisture. Hang a bulb by a thread from the ceiling somewhere near the stove, and it will flower without soil and without water; but not without moisture,—that has to come with the warmth, or the bulb won't flower. Again, you can, or ought to, dispense with light in the germination of seed. You can dispense, in many instances, with soil also; but you *must* have moisture. It is that which renders the hard parts of the seed soft, the solid ones liquid, the stiff ones flexible. If heat is added, the seed swells, distends, and the life of the plant begins,—it germinates.

Upwards strives the plantlet towards the light and the sun, the bountiful sun, which supplies that, as well as warmth. Let us, in forcing, make the most of the sun when it shines for us, both for light and warmth; or let us, as the case may be, make fire our servant for supplying warmth. But, above all, let us get the moisture, Nature's grandest agent. Rain descends most copiously in spring, when by far the greater part of the vegetation of the whole year takes place.

As we draw nearer the equator, where Nature unfolds her greatest vigor, both in size, consistency, colors and density of vegetation, we see that she is at work during the "wet" season, and almost inactive during the "dry" one.

And what does moisture do for vegetation?

Applied to the soil,—be it rain from the heavens, be it water from our pot,—it dissolves such of its solid particles as will serve as food for the plant, carrying them into every cell, and altogether giving the plant the elements of its body. That done, it evaporates through the pores of the plant. If we want now our watering-pot to elicit from the soil his service in best perfection, we must naturally take care that its contents resemble as much as possible the sweet spring-showers, in regard to temperature, to gasses taken from the air, etc., etc.

Applied to the air, moisture held suspended in it will prevent the too rapid evaporation of the water drawn from the soil into the body of the plant, and thus perfect that process.

Our difficulty lies, perhaps, mostly in the *balance* of warmth and moisture. These two agents having to feed on one another for the benefit of our plant, a preponderance of one over the other gives immediately different results. Excess of moisture fosters the *liquid;* excess of warmth the *solid parts* of vegetation. Nor can we force "by steam," firing up and deluging at the same time, unless we happen to work on tropical plants, which are at home under the torrid zone. With the rest of vegetation, we must as closely follow the nice calculations of Nature as our means will allow. Thus, as soon as our plant is up, let us give it an artificial spring; more water than heat; and when it has done its spring work,—when it has grown up, branched out, made fruit or flower-bud,—let us be ready with our artificial summer,—more heat than water; hardening the wood; boiling the juices; ripening the fruit; expanding and painting the flower. Hence it easily follows that we must prolong each season as it suits us, running the scale of moisture and warmth, up or down, through its many degrees, in our operations, from a Lettuce up to a Grape,—from a Pine Apple down to a Radish. Do we want to eat the plant itself? Let us, by all means, foster its liquid parts, since it is their developement which constitutes what we like in its taste. *Per contra*, the solid parts make it "stalky, woody," and we must try for getting as little of this woody fibre as will at all comport with the growth of the plant. Our means are heat and moisture, of such degree as will force quick growth, keeping the air humid enough to retard evaporation, and thus to prevent the consolidation of the liquid parts into woody fibre.

Do we, on the other hand, aim for flower or for fruit, we shall, of course, when flowering time approaches, try to develop them as fully as possible.—A drier heat and increased evaporation will do that,—and what we lose in actual growth of our plant, we gain in the perfection of its parts, and, in this instance, of its fruit or flower.

Here, as in every thing, Nature affords a plain, intelligible model. Nearly the whole season's business, as far as growth goes, is done in spring. When summer brings the fruit along, the general growth of the plant has ceased. By lessening or checking that growth, we shall force the flower or blossom, and we shall keep that flower the longer by reducing the warmth to the lowest point which the plant will bear. Or we shall force the fruit, if that is our purpose; but in this case we must fire up steadily, though gradually, in order to develope quickly and fully the fructifying parts, which, when perfect, will in their turn give us perfect fruit.

Fructification once done, our watering-pot must flow copiously. The quicker the fruit swells, the larger and better will it get to be. We only turn down the lane when we think that the fruit has grown large enough; then we lessen the quantity of water. Otherwise our fruit will get watery and insipid. It is different with such fruit as, for instance, Cucumbers, which, as far as our taste goes, are perfect *before* ripening, and therefore cannot be too large nor too juicy. With other fruit we must, after having got a proper size, reduce moisture and increase warmth, and we shall get the flavor, the aroma, and the saccharine matter. As no summer sun will shine for us except in summer, we must try to make an artificial summer without it, by the graduation of warmth and moisture.

But the sun will shine for us for an equally great purpose, and give us light in the "winter of our discontent." Light, life and liberty,—do they not follow each other?

Well, we have the light, but we have not always the unclouded sun. And it is he, in his radiance, whom we most want for the ripeness and flavor of our fruit. Still we, in our latitudes, may be thankful enough when we compare ourselves with Northern Europe, where the art of gardening flourishes most, and where the sun is but little visible during the winter months. And how much of our success depends on the clear sun-light, every one of our craft will know but too well. Such commonplaces as "Never say die," "Patience *is* a virtue," and similar sublime ejaculations, will have passed the lips of our battling, and often baffled, brethren often enough. We poor mortals can ward off the sun when it gets too strong for our frame; we can shade our nurslings; but—oh! wise observation!—we cannot create the sun as we can create the shade. Nor, when the sun does come out, can we make him shine in that position which he occupies in summer time with us, that is, one which gives an increase of heat and light; still less, supposing we aim at the produce of warmer zones, in the position he holds there, and with its attendant light and strength. It is this want of light which trips us up at times when we most think of succeeding.

Here, then, is the end of the *force* of our *forcing*.

[Translated from L'Horticulteur Praticien.]

VENEER GRAFTING ON THE OLD BARK.

THE bark of a tree is composed of three distinct layers; first, the outer bark or epidermis, which in old trees becomes very rough. Second, an intermediate layer, which is more or less green, and which shows when the outer bark is scraped or shaved with a knife; and third, an internal layer, called the *liber*. It is white, and of a fibrous nature.

Grafting by a scion on the *green* part of the bark, from which the epidermis has been previously removed by a knife, is a process of easy demonstration; M. Oberdieck, one of the most skilful pomologists of Germany, having succeeded perfectly in uniting branches of all sorts of fruit trees, on the bark simply stripped of its epidermis. Any one who doubts the possibility of the thing, has but to observe in nature that two branches which touch and which remain in that position for a long time, will become perfectly united. This mode of grafting is very advantageous in re-grafting old trees.

OUR latest number (for November) of "L'Horticulteur Praticien," states that M. Chantin, of Paris, has just brought out eight new and most beautiful varieties of Caladium. Several of them spotted with white, rose-color, black, and greenish blue, and some striped and marginated.

Bouvardias. This beautiful tribe of plants is likely to become more popular even than they are at present, from the fact new varieties are now obtained from seed. The periodical above mentioned gives a figure of a very beautiful variety, named "Laura," obtained from a cross between B. longiflora alba and B. leiantha. The trusses of flowers are large, and of a beautiful shade of pink, edged with scarlet.

CUPHEA STRIGILLOSA, or IGNEA.—Mr. Beaton, in the *Cottage Gardener*, speaks of this as making a very effective bedder. Our own experiments the past season were unsuccessful. It would not bloom till late in the fall. Has any one tried it more successfully?

CALCEOLARIA AMPLEXICAULE seems quite a favorite yellow bedder in England. *Triloma uvaria*, the same writer thinks, should be only called Kniphofia (pronounced *Nifofia*) uvaria. This plant, though so long known, still commands a high price in England. The lowest price we have seen it offered at is $37 per 100.

ANEMONE JAPONICA.—Mr. Beaton says this is the only plant he knows of that will flower well as a garden plant in a low moist bed or high up amongst rockwork. It grows here remarkably well, commencing to flower in August and blooming till frost.

THE GOURD FAMILY is coming "into fashion" in England. They grow so easily with us, that they are not much prized. Under the name of *Momordica Charantia*, Mr. Beaton describes a pretty species, which has its fruit, when ripe, "split open and curl back like a Fuchsia, showing the seeds like coral beads, all of the richest tints, from the orange to the deepest crimson." If any of our friends feel disposed to *import* it, they may save themselves that trouble by writing to any of our German settlements for the "*Balsam apple*."

MERVEILLE DE QUATRE SAISONS RASPBERRY.—We were sorry to find Mr. Rivers "asking the sanction of the Society to change this name to that of '*Yellow four Seasons.*'" The name is "ugly," to be sure, and the Frenchman who thus named it never ought to name another; but if he had a right to name it, it should be adhered to. This tampering with names without reason, is a growing evil. People here do not import wholly from England. France and Germany get a good share of our orders; and we shall have some of our friends who cannot be expected to know French, ordering the *Merveille* from France, and the *Yellow four seasons* from England, under the legitimate impression that they are two kinds.

NEW LETTUCES.—Mr. Fish, one of the best English gardeners, says the *Matchless* is the hardiest lettuce he has met with, and the best for autumn use; and the *Champion* a good summer variety. He says they are sometimes confounded as one and the same.

AMERICAN PEACHES were exhibited by Mr. Rivers at the British Pomological Meeting, September 23rd. *Crawford's late* was not thought highly of; but *Ward's late free* was much praised for its beauty and flavor.

Foreign Correspondence.

From our Regular Correspondent.

CANNON HALL, Fir Vale, near Sheffield, England.

HORTICULTURAL buildings have advanced considerably of late years. Structures of the most elegant character and size, that would at one time have been considered impracticable, are common now. Not only have glass houses been immensely multiplied here, but they have been varied and beautified so very much, that they hardly look like objects of the same character they once were. The Chatsworth Conservatory was, in its day, a wonder. The "Mountain of Glass," as it was called, astonished the public, and prepared their minds for other possibilities. And now the "Crystal Palace," having fairly eclipsed all other glass buildings, covering acres, we would not venture to say to what extent or beauty glass structures may ultimately attain. Such developements were needed to keep pace with the progress made of late years in plant culture and for ornamenting extensive estates. Instead of being put up out of sight, these of later origin are set up in the most conspicuous places. They are ornaments and add new features of interest to the grove, the lawn or the mansion.

The system of heating by hot water has been found of very great service in these large buildings. Experience has proved that one powerful boiler can heat several houses, needing but one fire where formerly several were required. I have now one boiler which has been in operation for some time. It heats a large conservatory, stove, East Indian house, Mexican house, and a resting house; the latter three are for the culture of Orchids; also an intermediate house, and winter house. It does its work well. At the outset the expense is heavy; but if the houses are properly arranged and properly constructed, in a few years the extra expense returns in less fuel and reduced labor. Some of the London nurserymen have adopted this method, and they are a class of men well qualified to understand, not only the practical part, but also the financial question, and they are generally well satisfied with the result. Judging from the present rather common form of orchard house for the culture of dwarf Peaches, Nectarines, Plums, &c., and the glass wall and many similar contrivances made of glass for protective purposes, combined with the hot water system we, shall not be surprised to see acres of land *heated* for vegetable and fruit-growing purposes.

One of the results at present very evident, is the attractiveness of these large houses for winter-blooming plants; and not only blooming plants, but also those remarkable for fine foliage, either of form, character or color; the massing and grouping of these form a very interesting feature in the winter months with us, when out-of-door enjoyments are not accessible.

The Chrysanthemum is now creating a sensation in winter Floricultural operations. The Temple Gardens (at London) this season have been, as usual, visited by thousands of lovers and admirers of this flower.

Even as an out-of-door autumn bloomer for the furnishing of vases or prominent beds it has no equal. We have seen different methods of training and planting for effect, one of which we will name,—for round beds, where tall plants are needed for the centre, we have seen a tall variety chosen, such as the "*Queen of England*," blueish, or if a yellow centre was required, "*Gluck*," and one shoot only permitted to grow to its proper length and strength; this is stopped a few times to make a bushy top, and if the flowers are intended for exhibition, they must be thinned out in the same manner as *Camellias*. This tall plant is planted in the centre of the bed. Round this is planted a circle of a different color, and then others, until the bed is filled, edging round with some of the Pompones. It is quite surprising to witness the improvement made in their culture, as well as the improvement made in their form and shape.—Some blooms have been produced this season more than five inches in diameter, and plants have been shown, covered with flowers from the bottom to the top, which would have been attractive even in the summer time. To procure fine plants, some of the GREAT growers commence raising their young stock as early as November, and keep progressively potting and training until blooming-time, using frequently liquid manure. I subjoin a list of some which seem general favorites, and which I have grown for a few seasons; they are showy and good kinds: yellow—"Gluck," "Annie Salton," "Temple of Solomon," and some of the yellow Pompones. "Beauty of Versailles," Chavan Dumage" and "London" are very good and useful as intermediate colors; for dark blooms, "Madame Poggii" and "Bob," and "Brilliant;" for white, "Defiance Duke" and "Nancy de Coremal," with "Heroine," "Queen," and a very fine new one of this season, called the "Golden Queen of England." I would recommend "Pearl," "Etnella," and "Model" to make a pretty selection, and would form a pleasing assortment of dissimilar blooms in character and color.

Amongst winter blooming plants I would mention with all honors a fine new Gesneria called *Gesneria Cinnabarina*. This plant has flowers pretty much like the old "G. Zebrina," flowering in a spike like it, and having similar markings on the inside of the blooms, which are arranged in considerable quantity on spikes. They are very brilliant, indeed. It has also a foliage of great attractiveness and beauty.—The stem and leaves are covered completely underneath and above, with a rich coat of velvet-looking variegation, which has the appearance of shot or shaded silk. There is an improved variety of *Zebrina*, which is worth growing. The flowers are the same as the Zebrina, but the variegation on the leaf is far more beautiful than on the old variety. It is called *G. Zebrina splendidissima*. Like Cinnabarina, it is of very rapid growth. There are others which are well spoken of; but they have not appeared to me according to representation. The old *Gesneria picta* is a far more useful plant than many suppose, and may be had in bloom throughout the entire winter months.

Thyrsocanthes rutilans is a stove plant much like Justicea carnea in every respect except its blooming habit. It should be permitted to grow as tall as possible, the taller the better; in fact, when it has attained the desired size, then it must have *no* increase of pot-room, and a removal to a cooler and drier house for a few weeks will be of service; when again introduced into a warmer temperature, it will show bloom; the spikes, soon after their appearance, take a downward tendency, which should not be interfered with. We have had them as much as five feet long, hanging down all round the plant in the most profuse and graceful manner conceivable. The flowers hang loosely; their color is rosy red; they are something like the blooms of the *Russellia Juncea*. I lately saw about forty fine plants of these in full bloom in a private collection, arranged opposite each other along the principal passage through a conservatory. These were backed with Fern and white and yellow Chrysanthemums, to contrast with the red of the *Thyrsocanthes*. And the effect was most enchanting. They looked like "fountains of rosy flowers in some fairy land."

In furnishing occasional notices of places worthy of publicity, perhaps the "Public Gardens" may claim our attention.

A few days ago I took the railroad for Manchester; for I had heard much, and longed to see what they were doing in that celebrated city. I found the Botanic Gardens were no disgrace even to this noble town. Their state shows that the "men of Manchester" can and do appreciate the beauties of Nature; and in this public institution we see their taste and spirit creditably displayed. Judging from the recent and many improvements made, and the diligence and intelligence of the Curator (Mr. Bruce Findlay), increasing popularity and prosperity must be the future portion of these handsome gardens.

The entrance is from one of the principal streets, and the gates and primary entrance are substantially built, having little show or mere ornamental decoration. The most prominent and imposing feature, and one which strikes the attention on entering, is the *Exhibition House*, (so called from the fact of its having been built for the purpose of affording accommodation for exhibitors, of which there are some very fine ones in Manchester, scarcely, if *at all*, inferior to London shows). This house is one of the most handsome and elaborate buildings I have ever seen, being not only large in size, but elegant in its architecture and effective in its site. There is a broad promenade walk down the centre. The flowers are arranged on either side of it. The building is tall, and having four flag-staffs from each corner, from which banners are suspended on all attractive occasions. This fine building was now almost empty.—It would make a fine winter garden at a small outlay. On the left of the *Exhibition House* we get a view of the next most striking feature of this establishment, in the shape of a range of glass about 380 feet long. These houses, from their length and uniformity, with the dome of the Palm House rising from them, look well. They are all heated with hot water. I will briefly enumerate the different houses, and notice some of the most important and interesting objects there. The first is a large Camellia House, well stocked with plants. I noticed the back passage had recently been converted into a Camellia border to cover the white walls. In this house I noticed a fine specimen plant of *Banksia speciosa* and *Decrydium cupressinum*, and also *D. Franklinii*. The next is a sort of Greenhouse, and contains a very extensive stock of Azaleas, *Polygallas*, *Epacris*, Auricarias, &c. The third is the Palm House, which contains a magnificent specimen of *Sagus Rumphii* and *Sabal Blackburneana*. This latter plant is one of the most handsome specimen Palms conceivable, and is deserving of a house to its own especial service. Also *Latania Borbonica*, a fine plant, with *Zylophilla latifolia*, now much in favor on account of its singular habit of blooming on the margin of the leaf. The back wall here is covered with a plant of *Passiflora Decaisneana*, an improvement on P. quadrangularis. I noticed a neat little rockwork, where other things would hardly grow, for the accommodation of Ferns. In one of the back rooms were two *Aquariums* of considerable size. These are very interesting. Leaving the Palm House, we enter Greenhouse No. 4, which we found well supplied with *Chrysanthemums*, *Chinese Primroses*, and *Witsenia corymbosa*, an old but very useful blue color; there were several good plants of *Acacia*, *Aphelexis*, and the old but fine-scented *Magnolia fuscata*. House No. 5 is a stove, and contains a good collection of standard showy and interesting plants for such of the visitors as are not Botanists. I noticed a fine plant of *Brownea grandiceps*, *Brexia chrysophylla*, *Dracenas*, *Marantas*, *Allamandas*, Ipomœa and Stephanotis. These plants were well grown, clean, and judiciously arranged.

Having now passed through this row of glass houses, we return towards the Exhibition House.—Here I must notice this principal walk, which is several hundred yards long and 20 feet wide, at least. This is one of the very finest promenade walks about Manchester, and must be a great accommodation on gala days. To the left of the houses last described is the Orchid House. In one compartment of this house was a well-grown and correctly named selection of

Ferns, which are getting to be great favorites. In this house was a plant of *Solanum purpureum*. The plant is of very rapid growth, having fine foliage, somewhat prickly, the leaves delicately tinged with a purple bloom. On passing through this house, we enter the Victoria House, which now seems almost an indispensible portion of a perfect range of glass. We found a few fine leaves and several flowers still on the plant Victoria regia. There are now many fine Water Lilies (*Nymphæas*), and other aquatics, which form very interesting objects, and generally absorb above an average share of attention, particularly when a few Pitcher plants, *Dracenias*, and that most wonderful lattice plant, the *Ouverandria fenestralis* is introduced. Behind the Orchid House are two span-roofed houses, one of which was used for the purpose of a nursery or intermediate house; the other house is used as a propagating place.

The Reserve Garden, or nursery ground, is very useful. Fronting this piece of ground is the last range of glass, which must be 200 or 300 feet long. These are used as Winter Houses. They are heated by hot water. They are low, having a good passage through the centre, with a bench on either side. The ventilation is given from front sashes and top lights. These places are most convenient and useful, being very much better than pits or frames for many reasons, which my practical brethren will understand.—Every inch of all this space is filled with a multitude of Geraniums, both for bedding out of doors, and Pelargoniums, Fancy and French spotted kinds for pots, with hundreds of Verbenas, Fuchsias, Cinerarias, Calceolarias, &c., making a vast collection of those plants which have proved most worthy of attention. The next walk leads us to the Exhibition House. From the front of this we have a view of a very neatly laid out flower garden. Behind this garden a pretty considerable sheet of water is seen winding, and spanned by two rustic bridges, a large bank or island has been lately planted with evergreens. The inside of this bank is now being laid out for an "American garden," and will be planted with Rhododendrons and the like.

Before leaving Manchester, I visited one or two private establishments there. They belong to merchants of the Manchester school,—men who have made their own fortunes, and yet can spend with a princely liberality hundreds of pounds on those Horticultural beauties.

The first place I visited belongs to Mr. Samuel Mendel, Esq., and contains one of the finest grown and well managed collections of hard-wooded plants I have seen. They do indefinite credit to Mr. May, the gardener.

The next place was near Newton, a few miles from Manchester, on the Sheffield and Manchester Railway, and belongs to Samuel Ashton, Esq. The houses, which are built according to the plans of Mr. Siddley, the gardener, are well adapted for their several purposes. Some thousands of pounds must have been spent on the plants alone. One house was devoted exclusively to Ferns.

Horticultural Societies.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The Stated Meeting of this Society was held in the Library-Room at Concert Hall on Tuesday Evening, December 21st, 1858.

Robert Buist, Vice-President, in the chair.

The Treasurer submitted his statement of accounts, which was read and referred.

The Library Committee presented their Annual Report.

On motion, ordered that the sum of two hundred dollars be appropriated for the increase of the Library.

Ordered, that the thanks of the Society be tendered to Amable Brazier for the gift of four volumes of "Le Botaniste Cultivateur, par Dumont Corsat, Paris."

The Committee for Establishing Premiums reported a schedule of premiums for the year 1859, much more extensive than the last.

The following resolutions were adopted:—

For the more general diffusion of the proceedings of the Society, and to encourage renewed interest in Horticultural Science, the following resolutions are offered:

Resolved, That it be the duty of the Secretary to take charge of, and carefully preserve for printing, the Reports of the Standing Committees and such other reports and communications that may be read before the Society, and ordered by a vote of a majority of members present to be printed.

Also Resolved, That it be the duty of the Secretary to hand to the Committee of Publication to have printed monthly, and bound annually, beginning with the month of January, the above named reports and communications.

Also Resolved, That each member shall be entitled to a volume of the proceedings, upon the payment of their contributions.

Resolved, That the Corresponding Secretary shall address a copy of these Resolutions to the Chairman of the Committees on Entomology, Botany, and Horticultural Chemistry, requesting from each of the Committees a communication or essay upon their respective sciences.

Resolved, That the Committees of Fruits, Vegetables and Flowers be solicited to furnish an Annual Report, exhibiting the progress of their several departments, the value of new productions, &c., and suggesting improvements and rules for future guidance.

Mr. James, from the Committee on Botany, to whom was referred the subject of what are the characteristics which are intended to constitute an American Seedling Grape, reported verbally, that the subject contemplated by the proposed premium for an American Seedling by the schedule, is whether it is to be for the product of an American species, or whether of the seed of any other species, provided it be raised in this country, they do not consider within their province, but more properly belongs to the Committee for Establishing Premiums, and that they should define the intention of the proposed premium.

Mr. Saunders, on whose motion the amendment to the original motion was adopted, explained that it was his intention to have referred to the Committee on Botany the question—Is the Clara grape-vine a seedling of the Vitis vinifera, or is it a seedling of an American species? This being the motion, and there being no means now to determine this question, it must lie over for the proper season.

The amendment to the By-laws proposed at the last Stated Meeting was taken up, considered, and adopted, and nominations of candidates for the respective offices, to be elected at the next meeting, were made.

On motion, adjourned.

CINCINNATI HORTICULTURAL SOCIETY.

NOVEMBER 27th.

President Stoms in the Chair.

The discussion most important was, the best age of nursery trees for transplanting. Mr. Buchanan deemed that, for the Apple, trees two years old were better than those more advanced in age, and thought that an Apple tree transplanted at that age, all things being equal, would produce fruit as soon as one transplanted at four years old and would, also, produce a more healthy tree.

Dr. Taylor remarked that he would now prefer them at one year old.

Mr. Hazeltine said that much depended upon the condition of the ground in which the tree was planted, and condemned the neglect of culture of the new planted tree, which is too frequently observed.

Mr. Mottier stated that he had planted trees, more or less, for 30 years past; thought that two years old was better than one, though he would not take trees beyond three. He suggested that at one year old the root of the tree is not well developed.

Mr. Mears remarked that in the past ten years he had transplanted about thirty thousand trees; and that as to Peaches, Pears, Plums, &c., his preference would be at one year old, and the Apple at two years old. He said that much depended on subsequent cultivation.

DECEMBER 4th.

The question for the day being called "The expediency of planting seedling Peaches, and the prevailing practice of grafting," an interesting discussion ensued.

Mr. Howarth maintained the expediency of planting seedlings, and assigned as reasons, that the seedlings are more hardy and more productive than the budded trees; that they are longer lived: not so easily destroyed by the severity of the season. He considered that one out of every three of the natural seedlings never fails to bear fruit, except in cases of late frosts; that they are more prolific, the foliage more succulent, the wood more robust.

Dr. Taylor, Mr. Mears, Mr. Cook, Mr. Murray, and others made interesting practical remarks in defence of budding. At the close of the discussion the President introduced Dr. Taylor, of Cleveland, President of the Horticultural Society of that city, who thereupon addressed the Society in some well-timed remarks. Among other things, he suggested the importance of establishing a system of fruit exchanges between the Societies of Cleveland and Cincinnati, so that the specimens submitted to each might be examined by both.

At the conclusion of President Taylor's remarks, Dr. Sturm moved that this Society proceed to take measures for arranging a system of fruit exchanges with our sister Society at Cleveland, pursuant to the suggestions of Dr. Taylor, which was adopted.

DECEMBER 9th.

A letter was read from Mr. John Johnson, deprecating the idea that an orchard of seedlings would be better than one planted with the finest innoculated kinds.

The question of the day, "the prevailing practice of grafting," being called, a very animated and interesting discussion ensued.

The President explained very fully and clearly the subject to be treated on, giving an account of the different systems of grafting in the root in England and France, and the United States, the practice being in the former countries to insert only one, the latter country three or four.

Mr. P. G. Cary was opposed to the system of of taking sections of roots to work upon. He had visited a gentleman who had set out fine looking trees in a rich soil, well cultivated. For two or three years they did well; but at this time thy were not higher than his head. If any body would give him 100,000 trees so worked on portions of roots, he would not accept them as a gift. He considered seedlings as the best to graft on, which produced natural trees. In fifty years hence, where, he asked, would be the trees grown on sections of roots, compared with seedlings? The former can never be equal in longevity, vigor or health to the latter. The former is nothing but a layer. There is one fixed point in a tree—its collar. There will be in its growth the same elongation downward as upward—it will not vary in length. All the best authorities he ever read were in favor of the seed. All good cultivators are advocating the sowing of wheat near the surface. All good apple trees should show their roots above the surface of the ground. None other do well for any great length of time. There is an exact point where trees get the sun, and where they get the due nourishment of the soil.

Mr. Heaver contended that the arguments of Mr. Cary were chiefly merely theoretical. He agreed that no transplanted tree can be exactly equal to a tree directly from the seed. A tree can not be transplanted precisely in the entire condition where it was grown. It must vary somewhat. It cannot have, from various circumstances, the precise position as to its collar or vital center, in its new place, as it had before. The soil may be lighter or more heavy. Nature, however, will adapt it to this new state of things. The ill success of the trees referred to by Mr. Cary, three years ago, might very fairly be attributed to the then very serious winter. Numbers of trees were then most seriously and irreparably injured or destroyed. Seedlings, at any rate, would not afford sufficient trees for the now enormous demands, and section grafting has to be resorted to. He admitted that lower sections of roots may possibly be the weakest.

Dr. Joseph Taylor remarked that his experience was different from Mr. Cary's—he had in his nursery an abundance of two year old trees inserted in sectional roots which were of fine and sufficient height.

He had known trees forty years old from cuttings healthy, flourishing and perfect. He considered that the large roots were intended by nature for sustaining the tree in the ground, and the small or fibrous roots for nourishment. A proper proportion between the roots and the top should be attended to in root grafting. He was acquainted with grafted trees sixty years old, and still doing well.

Mr. Howarth advocated at length seedling trees in preference to root grafting in sections, and submitted a number of propositions to the same effect.

Mr. Hazeltine thought that the great leading star everywhere, as well as in this Society, should be tests by practice—nothing else would completely and permanently satisfy our minds. In transplanting large Norway firs, he had found that they had very few downward roots in comparison with the fibrous and spreading.—These latter were for feeding, the former for support chiefly. Many plants were propagated from cuttings. Yews and Pines, for instance—Junipers, also, do well. Nature is wonderful and all-wise in adapting and contriving purposes, even in what might be considered abnormal conditions.

The subject was then adjourned till next Saturday.

ILLINOIS STATE HORTICULTURAL SOCIETY.

Permanent officers were elected:—C. R. Overman, of Bloomington, President; William Yates, of Tamaroa, Vice-President; O. B. Galusha, of Lisbon, Corresponding Secretary; Samuel Edwards, of Lamoille, Recording Secretary; and Arthur Bryant, of Princeton, Treasurer.

Information was asked, in relation to the best methods of tying and wrapping grafts.

Mr. Minkle exhibited a sample of apple roots which had been in his cellar over two years. They were in good condition, and had been packed in oak sawdust, just as it came from the log. Mr. M. thought pine sawdust would have a tendency to heat the grafts, and thereby injure them. In planting grafts, he uses a steel dibble, shaped much like a bricklayer's trowel.

Messrs. Whitney and Jesse W. Fell said they used corn husks in tying grafts. They thought husks were much better than twine.

Mr. Shaw said he used wax, made of ten pounds of rosin and one pound of lard. He applied it warm, and dropped his grafts in cold water as soon as they were waxed. A young man that worked for him, waxed one thousand grafts in thirty-five minutes.

Mr. Bryan grafted without tying, but not with as good success as when he tied with corn husks.

Mr. Huggins, last year, did not tie any of his grafts, and his success was complete.

Mr. Kennicott inquired as to loss from having grafts frozen in boxes.

The President said grafts would not suffer if packed very carefully in moist sandy loam.

On Wednesday evening Mr. M. L. Dunlap delivered an address on the Protection of prairie orchards, and the fruits adapted to our climate and soil. He insisted very strongly on the benefits of protecting fruit trees by artificially planted belts of timber, to guard them from the cold winds, and from the violent changes of temperature, which are more injurious than severe cold. He surprised members by the position that, although protection was desirable on *all* sides, it was especially so on the *west* and *south*. The American arbor vitæ, the larch and the maple, he thought, must be the main dependance for protective purposes. With protection, he thought, many fruits would thrive that now do not.

Friday forenoon was chiefly devoted to the subject of Pear culture.

Mr. Bryant remarked that he could not speak encouragingly with reference to the cultivation of pears in his part of the State. He had planted standard trees for twenty years, and dwarfs for about eight years.

J. Stevens has about twenty-five standard pear trees. They are of different varieties, and their age is some seven or eight years.—They are sheltered by buildings on all sides except south; are apparently healthy, and bear satisfactorily. The soil on which they stand is common prairie.

Mr. Starr, of Alton, has a large number of old trees on his farm. Many of them were killed during the winter of 185?–6. Both dwarfs and standards are liable to blight, but they are less affected in grass than in ploughed land.

Professor Turner took great pains. He dug holes six feet deep, and filled them with bones and soil. All of his trees died. Since planting on thoroughly trenched soil, he has not lost a single tree. Fruit growers had better throw their money in the fire than expend it on pear trees, unless the ground is underdrained. Grape vines, running over pear trees, have protected them from winter killing. —*N. W. Prairie Farmer.*

HORTICULTURAL SOCIETY, MORRISANIA.

Regular Meeting, Thursday, Nov. 4, 1858.—Vice-President C. Moger in the chair. Minutes of last meeting read and approved. On motion of Vice-President Harrison, the thanks of the Society were returned to the President and Secretary, and the Committee of Arrangements of the late Fall Exhibition, for the valuable services which they rendered. On motion of the Secretary, thanks of the Society were voted to the Melrose Lieder Tafel, for the delightful music which they discoursed on the last evening of the Exhibition. Premiums were then awarded to Messrs. D. R. Harrison, Webber, Van Nostrand, Hauptman, and Woolf, for articles exhibited at the Exhibition; the other exhibitors not being present. After which, the Society adjourned.

Wm H. Willcox, Secretary.

[*Hort. Monthly.*

WHITE PLAINS HORTICULTURAL SOCIETY.

The Fourth Annual Exhibition of the White Plains Horticultural Society came off on the 29 September last, and so far as variety, quantity, and quality of material were concerned, 'twas a success. The room was large, and well suited for the purposes of display, and accommodating visitors, had the latter favored the Society with their attendance.—*Hort. Monthly.*

SOCIETE CENTRALE D'HORTICULTURE,

PARIS, FRANCE.

The Fall Exhibition was held on the 26th of September, in one of the grand galleries of the Palace of Industry, in the Champs Elysees.

The display of Fruits, Vegetables, Dahlias, Asters, and Hot and Greenhouse Plants was most imposing. Amongst the latter was a large collection of new varieties of Caladium with very striking foliage, from the banks of the Amazon, exhibited by M. Chantin. But the Passiflora of M. Gontier received the highest honors of the Exhibition. It is a variety obtained from the seed of P. alata.—The flower is very distinct in shape and appearance, *but insts, unfortunately, not a single day.*

Among the new varieties of esculents exhibited were the *sweet potatoe*, the small potato (?), the large potato (?), the large yam, the red and green East India kidney bean, the Aricou varay, another variety of bean, and a variety of tarragon from Texas.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. MARCH 1, 1859. VOL. I.---NO. 3.

CALENDAR.

3rd Month, March, 1859, 31 Days.

Moon's Phases		Boston.		Philad'a.		Baltim're		Chart'l'n	
	d	h m		h m		h m		h m	
New.	4	2.27 ev.		2.10 ev.		2.01 ev.		1.52 eve.	
First Quarter.	11	11.55 ev.		11.38 ev.		11.32 ev.		11.20 eve.	
Full.	18	4.01 ev.		4.41 ev.		4.38 ev.		4.26 eve.	
Last Quarter.	26	4.43 mo.		4.23 mo.		4.20 mo.		4.08 mor	
Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	4	6.30	5.54	6.20	5.55	6.23	5.55	6.27	5.59
	11	6.19	6.02	6.18	6.02	6.18	6.02	6.17	6.01
	18	6.07	6.10	6.07	6.09	6.08	6.09	6.08	6.10
	26	5.53	6.20	5.54	6.18	5.57	6.17	5.56	6.16

This Calendar will answer for the sun for any place in the same latitude.

Hints for March.

FLOWER GARDEN.

The remarks we made last month were, in the main, made a little in advance of the season. As, this month being one of the most important of the whole season for garden operations, it was desirable to suggest many then that are apt to be forgotten when the hurry actually commences. The Hints then given may be looked over again to advantage.

Many things that appear frosted a little at the tops should be severely cut down, as it will prevent disappointment in the end. Shoots that are injured in winter—especially in the case of the rose—will often have just sufficient vigor left to enable them to put forth leaves, and sometimes even go so far as to attempt to flower, and then die off suddenly under the first hot sun.

This is particularly the month to pay attention to the hardy annuals. The sooner they are sown, the finer they will flower; that is, provided they are really hardy. Tender annuals, such as Globe amaranthus, Balsams, &c., rot if they are sown before the weather becomes quite warm. The seedsmen's catalogues usually distinguish these classes for their customers. In sowing annuals, the soil should be slightly stirred with a broad-bladed knife or trowel, and after the seeds are sown, they should have a little soil sprinkled over them, about one-sixth of an inch deep, according to the size of the seeds,—barely enough to cover is all that is required. Failures usually arise from the seeds being buried too deeply. Failures also frequently occur from the soil with which the seeds are covered being too stiff or clayey, "baking" after a rain. Light sandy earth or decayed vegetable loam from the woods should be employed for the purpose. Stick a peg in where the seeds are sown, so that when turning out the plants in May from pots, the annuals will not be disturbed. Also take care to preserve the names of the kinds. This is a great part of the interest in a flower-garden.

Of annuals that may be sown in March, there are some that are so very beautiful, and which do so well generally, that they *at least* should be grown.—These are *a few* of them: Cacalia coccinea, Coreopsis Drummondii, Erysimum Peroffskianum, Escholtzia Californica, Malope grandiflora, Marvel of Peru, Nemophila insignis, Phlox Drummondii, Mignionette, Whitlavia grandiflora, Clarkia pulchella, Gailardia picta, Palafoxia texana, Linum grandiflorum rubrum, Lobelia gracilis, White and purple candytuft, and Phacelia congesta. Where a hotbed can be commanded, many of the tender kinds can be forwarded under glass.

This is the proper season to lay down box edgings. To make them properly, the soil along the line of the edge should be first dug, and then trod very hard and firm, so that the soil may sink evenly together, or the line will present ugly looking undulations in time. Rooted plants should be employed; cuttings are sometimes used, but frequently die out in patches,—a good edge can rarely be made from them. The plants should be set pretty low down, leaving the plants, when set, one or two inches above the soil, according to their stockiness. Sometimes box-edgings are laid around beds formed in grass. When so, a few inches of clear ground should be kept clean between the grass and the box, or the weeds will be so intermixed with the box after a while, as to render it a nuisance.

Walks should now have their spring-dressing—the verges cut, and a thin coating of new gravel laid on. Before putting on the new, harrow up the face of the old gravel with a strong iron-toothed rake. Roll well after the new is laid on.

Planting trees will require particular attention now; but do not be in a hurry the moment the frost is out of the ground. Cold winds are very hard on newly set out trees. Wait till they are gone. Always shorten-in a little the shoots of all trees planted. They will grow the faster for it, and are more certain to live. Evergreens should be left to the last.

FRUIT GARDEN.

In those districts where the fruit-blossoms are apt to be destroyed by early spring frosts, a friend of ours recently observed, that whenever his apple crop failed from this cause, the Northern Spy and Rawle's Jannetting usually bore well through flowering later and thus escaping. Apricots against south or east buildings or fences are very liable to be coaxed by a warm March sun to bloom, only to be killed by the night frost succeeding. Wreathe in a few branches of evergreens to protect such trees from the sun. It is better to plant these early-flowering fruits where the sun has little of this influence.

In planting Apple, Dwarf Pears, Quince, Plum, or Peach, examine them first carefully, and take out any "worm," if any there be. Once out, keep them out by tying a piece of paper, to be afterwards tarred, loosely around the stem, so that when planted, two or three inches shall be under the ground, and the your neighbors who do not read the *Gardener's Monthly*, than go in there.

For small places a plentiful supply of Strawberries, Raspberries, Blackberries, Gooseberries, and Currants should be provided, and the Grape-vine by no means forgotten. These seldom fail to do well. Strawberries do well on a rich, dry, but deep, soil. On banks that are not too poor or dry, they seldom fail to do well, and are often three weeks earlier than when on level soil. The Blackberry also will do on a dry, rich bank. I mention this as there are often such spots in small gardens which it is desirable to render useful. *Strawberries seldom do well in low, wet ground.* Raspberries and Gooseberries do better there.

In planting Raspberries, they should be cut down nearly to the ground when planted. You lose the crop, of course, but you get good strong canes for next year. If you leave the canes long enough to bear, it will probably be the only crop you will ever get from them. *Never expect any thing to bear the year after transplanting.* It is generally at the expense of the future health of the tree.

VEGETABLE GARDEN.

Read the last month's Hints again for this. Sea Kale is a vegetable that thrives very well in this climate, but is not often grown. In the opinion of many, our own amongst the number, (and we value it highly,) there are few more excellent vegetables grown. This is the season to sow it for use next winter or spring. It may be sown in good, rich soil, in rows thinly, allowing several inches apart for each plant when it appears.

The Hamburg Parsley also, which has a root like a Parsnip, is very much valued by some. It grows best in rich, sandy soil.

FORCING.

The earliest houses will now have their Grapes about stoning, which is one of the most critical periods of the fruit season. If any check is experienced, the Grapes will be small, or perhaps fall off altogether. If they do not fall, they stand still for some weeks, and thus are not only inferior in size, but they are so much later than they otherwise would be. The temperature should be raised, if any thing, and particular attention paid to its regularity, as well as to the regularity of the atmospheric moisture and air. The foliage, also, should be carefully guarded from the injuries of mildew, insects, or other evil.—Many more diseases than gardeners think for are caused by injuries to the foliage. The *first* leaf that appears should be the one the *last* to fall, as near as may be. The nearer this can be achieved, the healthier will the vine be, and the more certain will it be to carry its fruit through to perfection. Some will depend on their soil, others on their pruning, others on the build of their houses, others on their general management, and each class fancy their success has depended on these matters, because others who had not paid attention to these matters failed. But the probability is in every case, that the vines did well, because, from some chance, *the foliage remained healthy.*

A stock of fruit trees for next year should now be potted in 12-inch pots, choosing those which will make the handsomest trees. It is only a matter of course to repeat that the soil should be coarse and open, and well drained. After potting, they should be severely pruned into shape, and the pots plunged in any spare piece of ground where they will be sheltered from the wind. Here they may remain all

summer, being taken out and re-set in the plunging place about twice during the season, to break off any roots that may be growing through the hole in the bottom of the pot.

Grapes, in pots, intended for next year's fruiting, should, of course, be kept in the house to grow all summer. Those who have not the advantage of any but a cold house, or with but a very little heat, may start vines for pot-culture about this time. Choose good strong plants in six-inch pots from last season's eyes. Cut them down to one strong eye, and set in the warmest part of the house. As soon as the eye has pushed forth into growth an inch, shake it out of the pot, reduce the fibres, and repot into a 12-inch, with rich, coarse, turfy soil, well drained. Keep it as warm as possible, and as soon as it has grown six or eight eyes in length, pinch off the point This will induce the part left to grow stocky, and, if care be taken to keep the leaves healthy through the year, these eyes, though close to the pot, will produce nearly as good bunches as those on the top of the vine. After the pinching, the shoot that afterwards becomes the leader may be allowed to grow five or eight feet long before finally stopped.

In forcing our Rhubarb this year, we were struck with the great difference in the earliness of the Prince Albert over the Magnum Bonum and Linnæus, the three sorts we employed. We expected it would be some days ahead, but we gathered just *four weeks* from it before the other two. Magnum Bonum is a little ahead of Linnæus. Four weeks is a great deal in forcing.

With regard to other crops under way—Lettuces, Radishes, Cucumbers, &c.—we can only repeat the stereotyped phrase of book-makers and newspaper calendars, to "give air on every possible occasion when the temperature is not too much lowered," and we will add, when the atmospheric moisture is not too much exhausted thereby.

HOT AND GREENHOUSE.

Azaleas and New Holland plants are now in their glory, and are well worthy of every care that the cultivator can bestow on them. Those which show a new growth, and are not pushing out as vigorously as we desire, should be re-potted. The soil is of paramount importance. It should be of such a nature, that in the hottest weather it should be cool and moist, without at any time holding much moisture in suspension. Nothing suits so well for this as peat.—not the heavy black sand sometimes so called, but a turfy, wiry, "rooty" material, composed of the roots of Ferns, fibrous shrubs, bog grasses, coarse moss, and sand blown freely in amongst it. Such "stuff" may be had for the searching in nearly any wood or swamp. This should be cut up with the spade, and pressed hard in the pots. Some writers assert that there is no need of peat; that they can grow the most delicate heath in any coarse loam, and so on.—So can we; but it is in danger at any time of being sodden, and the roots rotting by over-watering; which the soil we have described is not.

In the Hothouse, bulbs of Achimenes, Gloxineas, and other stove kinds that are desired to have to ornament the houses in summer, should be brought on and potted as they require it. Also Begonias and such other plants as will grow well under glasses in our warm days,—so that the houses do not appear altogether like a lumber-loft, merely because Flora happens to be in a happy mood in the open air.

Dahlias must not be forgotten. Few things make so fine a show in autumn, when properly cared for, as these do. Now is the time to get the ground roots. Reduce the ends of the tubers, pot in the smallest size pots, and when the young shoots appear, divide and pot them, leaving a part of the root with each shoot. These will make nice plants to set out in May.

WINDOWS.

March is a dangerous month for Window-gardening. A few warm days and nights occur, and we think summer has come, and the usual caution of removing the little pets to a warmer and secure part of the room in the evening is suffered to sleep; and in the morning, when the fair gardener awakes, she finds her choice plants black by a sudden frost, or otherwise injured. The plants will now, in the main, be growing freely, and all the air possible should be given in fine warm weather. Every lady knows the importance of light to plants, and always seeks to give them all they can get; but the *sun* light is more important still, especially the morning sun; and where a choice can be had, the plants should be so placed, that the very earliest rays should catch them. We think that one hour of the early morning sun is worth, to a window plant, two of any other hour in the day.

Communications.

PEAR TREES ON QUINCE STOCK.

BY WM. BRIGHT, LOGAN NURSERY, PHILADELPHIA.

The article by Mr. E. Norton in the *Horticulturist* for December last, on the general failure of the Pear on Quince Stock, has induced me to present you with a few suggestions upon this subject which I think may prove useful to persons who may hereafter attempt the culture of the pear especially upon quince roots. Mr. Norton's remarks are very fair and apparently well considered, the result of much personal experience and careful observation. But they contain within themselves, in my opinion, the evidence of erroneous views of pear culture, which are very common, and to which, in a great measure, the ill success of dwarf pears may be attributed.

Mr. Norton says he planted four hundred quince-rooted pear trees "on a sandy loam, with one or two gravelly ridges." Now, if this was a very sandy loam, resting upon a sandy or gravelly subsoil, it was evidently unfit for the pear. The soil for this tree may, and indeed should, be a sandy loam, but it should contain a large proportion of carbonaceous matter, and a little clay; otherwise it will be too open und porous, and will fail to supply the requisite amount of carbonic acid. Lime is an important element of the soil, and should be supplied freely or in moderation, as the soil is more or less carbonaceous. Mr. Norton says he planted his trees thus: "Holes were dug two and a half feet deep by three or four wide, and *filled* with a carefully prepared compost, not too rich, but having all the ingredients prescribed by the experts." The manner in which the trees were set out, in my opinion, presents the one great fatal error in the planting of fruit trees, which runs through all the works upon this subject, and prevails in practice to an extent sufficient to account for at least half the misfortunes of fruit-growers.

The great cardinal principle in all fruit culture, and in the case of the dwarf pear in particular, should be to keep the roots as near the surface of the earth as possible, and not to invite them down to a depth of three feet, by the use of rich composts. They will go down rapidly enough, and far enough, be sure of that, if the ground is well ploughed; but we ought not to encourage them to go down; and to this end, we should place the manure upon the surface of the ground, rather than under them. The recent experiments in surface manuring, in England and America, prove conclusively that, for most purposes, this is really the best plan, and that there is very little loss of valuable material occasioned by the exposure of the manure to the atmosphere, whether decomposed or not. But there is even a stronger reason for the method of manuring which I recommend. If the roots of pear trees are induced to go a long way down into the subsoil, the buds and leaves will start in the spring before the earth is so far warmed by solar heat as to excite the roots into full action, and thus a heavy draft must be made upon the vitality of the tree, by the growing foliage, before the sap begins to ascend with sufficient rapidity to meet this demand. Again, in the fall, when the earth is warmer than the atmosphere, the roots will continue too long in an active state, thus producing a succulent growth of wood late in the season, long after the whole tree ought to be in a state of repose, in order to ripen its wood. Leaf-blight in the first case, and frozen sap blight in the other, must be the inevitable consequence of such a condition of the tree. This is a principle of the highest consequence in the management of fruit trees, grape vines, &c. I plant all fruit trees as shallow as possible, having due regard to the natural requirements of the tree.

Mr. Norton says he "filled" the holes dug for his trees with "carefully prepared compost, having all the ingredients prescribed by experts." Now, the common advice of the books on fruit culture is, to use for such composts sod, loam, raw and ground bones, ashes, plaster, slaughter-house offal, night-soil, stable manure, &c. Mr. Norton writes like an intelligent man, and therefore we will not suspect him of using a mass of strong rich nitrogenous matter and alkalies, sufficient to kill any tree at once; and, indeed, he declares that the compost was "not too rich." But if he placed under his trees "all the ingredients prescribed by experts," even in moderation, in my opinion, he committed a grave error. A transplanted fruit tree should never, I think, be placed either *in* or *upon* such a compost, or any other manuring substance. The soil should be well pulverized, and the tree should be planted at the proper depth in the simple, natural, good top soil or loam, and covered with simple mild loam only. No manure should be placed under it, none over it (at first), and none nearer than from four to six inches from it on the sides.

"The transplanted tree," says Mr. Jacob Seneff, a highly successful pear-grower of this city, "is like a child, convalescent from some severe injury. It must not be fed at once with stimulants; it must have time to recover itself gradually by Nature's own processes, before you give it rich and abundant food." There is much good sense in the remark. To say nothing of the probability that you may destroy the tree by the excess of putrescent matter, and the powerful chemical action of your composts, when holes two feet and a half deep are filled with "all the ingredients prescribed by experts," it is evident that a young transplanted tree needs no such material to help its growth for several months, if not for the first year. The best compost for a newly planted tree is precisely that from which it was taken—the simple, natural loam, well enriched by previous cultivation. This is all it wants to assist it in getting started in its new residence; this is nearly all it will bear without injury.

The holes for pear trees on quince stocks, in my opinion, should be dug only deep enough to set the tree so that the union of the graft shall be covered an inch or so with the natural soil. Put no manure of any kind under or over them. You may, if you please, place a little compost in the opened cavity, as you are filling it up, six inches from them, but even this is not necessary. You can feed them soon enough and amply enough by top-dressing at the proper time, and the manure will be all the better for going down in a state of solution, instead of being placed around the roots in the form of gross and powerful composts.

The haste to manure transplanted fruit trees is not only a great injury, but an unnecessary and useless expense; and the cost of it, as advised by "the experts," prevents a great many persons from engaging in fruit culture. The very excellent and elegant

treatise on Pear Culture by Mr. Thomas W. Field, the intelligent Secretary of the American Pomological Society, recommends a plan of trenching and manuring as a necessary preparation for the pear orchard, which, I think, will not only have a tendency to deter many persons from engaging in pear culture, but, if followed, will cause many who adopt it to form a very ill opinion of the dwarf pear. Mr. Field says, to attain the highest success, you must trench the whole ground three feet deep with the spade, mixing in the process the entire top soil and subsoil to that depth, and incorporating with the whole fifty two-horse loads of stable-manure per acre. Not only so, but he advises well-rotted stable-manure to be placed in the holes when the trees are planted, and more manure to be sprinkled in as the holes are filled up, only taking care not to allow the manure to come in contact with the roots!

Now, to say nothing of the fact that stable-manure alone is not the best manure for fruit trees, the cost of trenching an acre of land upon this plan, he admits, will be $100. Fifty two-horse loads of stable-manure will cost, six miles from Philadelphia, from $250 to $300. Four hundred good dwarf pear trees for an acre, with labor of planting, &c., will cost at least $200; thus making the first outlay for an acre of trees, from $550 to $600. This, with the value of the land, after culture and risk, is rather too high a figure to render the culture of dwarf pears, "for market purposes," an inviting speculation.

Now, the truth is, a soil suitable for a pear orchard may be thoroughly prepared with the subsoil plough, by cross-ploughing, at about the cost of four ordinary ploughings and two harrowings. This will give a soil of eighteen inches in depth, well pulverized, which is ample. No general manuring is required; and, if done, will be a great waste of means. In all other respects, except that noticed, Mr. Field's book is a good one, and exhibits, on the part of its author, not only much literary skill, but a highly refined and susceptible nature.

But Mr. Norton says, in the article first alluded to, that he filled the holes in which he planted his trees with "all the ingredients prescribed by the experts." Now, I ask, what were those ingredients? Who are the experts? I should wish, before admitting that the compost was a proper one to be applied to fruit trees, to have full answers to these questions.

The "experts," to my thinking, make some serious mistakes about the composts for fruit trees. In the first place, it is a stereotyped recommendation, in books and some horticultural papers, to use stable-manure, night soil. and similar substances, freely.—In my opinion, our dwarf pears, at all stages of their growth, get too much nitrogenous or ammoniacal manure, and not enough carbonaceous. This sort of manuring may answer very well for cabbages and celery, but not for pear trees. Lime is often used too freely, and where there is much lime and a deficiency of carbon, chemistry tells us that the carbon will be rendered insoluble, and hence the little that there is will be useless. So, in respect to bone-dust, there are great mistakes made. Ground bones act very slowly, if at all, for years, and bone-dust rendered soluble by sulphuric acid, is immediately converted into insoluble bone earth again by coming in contact with large quantities of lime in the soil. Thus, if you use insoluble bones, you get little benefit; and if you lime your land freely, and then apply superphosphate of lime, the first form of lime will render the last at least temporarily useless. Now, if you use potash, ashes or oil of vitriol freely, to keep your phosphates soluble, look out for the destructive effects of these powerful acids and alkalies. Even the "experts" themselves meet with some sad disasters in fruit culture. Mr. Norton may be skilled in the knowledge of chemical affinities and reactions, for aught I know, but I submit that he has not told us what sort of ingredients he used in his compost, and hence we cannot judge whether his application of manure at planting caused the death of his trees or not. All the other cases of failure in dwarf pear culture which he enumerates, and which certainly, at first sight, seem like a formidable array of witnesses against this sort of culture, are liable to the same general objection: the particulars of the planting and management of the trees, which he has given, are too meagre to permit us to judge whether the want of success was due to the nature of the tree, or to the soil, the planting, manuring, pruning, and general management.

Mr. Norton says, in the case of his unfortunate trees, "the whole ground was cultivated with various crops." (What kind of crops?) "The trees were dug about and specially manured," (with what substances?) and all were thoroughly trimmed and scraped and washed," (what kind of wash, and how strong was it?) "by myself and a skilful gardener." Now, these "skilful gardeners" have done a deal of mischief, and many hundred trees have been destroyed by excessive manuring, digging, scraping and washing, which, if let alone, might still be alive and bearing fruit.

For myself, I believe that the pear on the quince stock, if planted, as I have suggested, in the simple loam of a proper soil, well ploughed and subsoiled, in a sheltered situation and proper exposure, and afterwards mulched, and top-dressed with proper manures, and properly pruned, and moderately fruited, will exhibit a degree of success far beyond that reported by Messrs. Allen, Elliot, Norton and others, in all the Middle and seaboard States of the Union, and will reward its cultivators with luscious and profitable harvests for a satisfactory number of years.

The space allotted to an article of this kind in the *Gardener's Monthly* will not permit me to state, at much length, my ideas of the proper management of the pear tree. I will merely say that the pear evidently demands, as special manures, carbonaceous matter, alkaline, phosphates, silicate of potash, lime, and a small quantity of ammonia, and that the skilful application of these substances requires much scientific knowledge. For persons who are not familiar with chemical laws, it will be safer to set out trees as I have advised, and spring and fall to top-dress moderately with well-rotted sods, or muck, decomposed with stable-manure, and salt and lime, or potash, (as advised in all the late publications,) and to add to the heap, just before applying it, a little super-phosphate of lime and ashes, or potash, say the proportion of ten to twenty-five pounds of potash, or six bushels of ashes, to one hundred pounds of superphosphate. If the soil is not sandy, add sand to the compost. Mulch the trees, winter and summer, with coal cinders, or anthracite ashes, and either cover the entire space between the trees, in summer, with litter, or crop the spaces with potatoes and root crops only. Prune in early spring, and pinch in to pyramid form in summer, thin the fruit to a dozen pears on each while the trees are young, and you will be more likely to meet with satisfactory success with the dwarf pear than if you follow the method of planting and manuring so generally recommended in books and periodicals, the absurdity of which I have here attempted to expose.

[Singularly enough, though so much has been said of dwarf pears till the public has nearly tired of the question, it is just where it was at the start. The whole discussion, so far, has ended in this *profound* deduction—"That some succeed admirably with them, and others fail utterly." That they grow well *somewhere*, shows that there is nothing against the quince stock *in itself*. What, then, is the cause of failure? What the conditions of success? A few such excellent articles as this furnished by our valued correspondent would soon settle these questions.—Ed.]

THATCH.

BY J. C. SIDNEY, ARCHITECT, PHILADA.

It has frequently been a matter of surprise to me that thatch has not, before this, come into more general use for roofing purposes, both on account of its cheapness, as well as of its many other desirable qualities.

The straw necessary for its manufacture is often wasted in large quantities, whilst farmers will pay their ready money and go to much trouble to obtain boards or shingles.

In the prairies, especially, where lumber is scarce and high in price, it would appear but reasonable to suppose that farmers would prefer to use material of their own growth, and close at hand.

In England, and on the continent of Europe, it is much used for covering dwelling-houses, barns, cattle sheds, and other out-buildings. It is very unusual for a farmer to draw his harvest, whether of grain or grass, into the barn; but it is almost universally put in stacks or *ricks* of convenient size. To protect these from the weather, they are covered with *thatch;* and experience has proved that hay will keep better, and be more free from mustiness, when stacked out of doors, than when housed. Much room is thus saved within doors for other purposes, and, of course, barns of less size are required on a farm, as the hay can be cut from the stack as often as a load is wanted.

For ornamental purposes it is particularly desirable; especially for summer-houses, boat-houses, &c., which are intended to be rustic in style, and which should have as little of the saw and plane about them as possible. However rustic a summer-house may be made to look as far as the sides are concerned, the roof is often an eye-sore, and harmonizes but little with the rest of the building or its surroundings.—Shingles, tin or slate, are the only materials available for covering, if we except bark, which is difficult to obtain in sizes sufficiently large and regular to make it fit closely, so as to entirely keep out the weather, and which also requires frequent renewal.

Thatch, being composed of a non-conducting material, forms a roof neither hot in summer nor cold in winter. Its color, when new, forms a pretty contrast with the surrounding foliage, without being glaring; and when its brightness is gone, and the weather has turned its golden hue into the more sombre gray, the effect is much more pleasing and in harmony with nature, than any paint that can be applied to renovate an old building.

It is very light, and requires much less strength in the supporting timbers than any other material.

If properly put on, it is impervious to snow or water; and, till it wears out, needs no tinkering or painting. It will last as long as the ordinary quality of shingles, and generally longer than tin.

The only objection to thatch may be that it is more liable to take fire; and this may possibly prove some impediment to its use for dwelling-houses or buildings closely clustered together; but in England it is very common for the houses in whole towns and villages to be roofed with thatch. This objection, however, does not apply to either farm buildings, stacks, or other structures in isolated situations, or to rustic ornamental buildings.

Another objection may be urged, that while so little is known of the mode of putting it on, it would be difficult to obtain workmen having sufficient knowledge to do it properly; but this is not the case, as there are hundreds of common laborers and farm hands in every part of the country, who would be but too proud to show their skill in work which, in their former homes, has often been their pride.

I shall now proceed to explain the *modus operandi*, hoping that some of your readers may be induced to try the experiment, for I am satisfied that the example would soon be followed by their neighbors.

The straw should be rye, for the reason, that it is more solid than that of other grains, and consequently not so liable to hold water within it. Where rye cannot readily be obtained, wheat straw will answer the purpose.

It should be used soon after cutting, or as soon as the fermentation has entirely ceased, as the older it is, the more brittle it becomes, and, consequently, more difficult to put on entire.

Straw which has been threshed by hand is preferable, as it will not be broken up so much as that which has gone through the threshing-machine.

During the process of threshing out the grain, it is usual to separate the best of the reeds from the straw, by taking it from the floor with the cut ends

as nearly as may be all in the same direction. The reeds are then put in bundles of about 6 inches in diameter, combed with a rake of 4 or 6 teeth about 8 inches in length, with a handle 12 inches long, to clean out all loose short straws and ends and straighten them out. The bundles are then tied up with a straw or tarred twine.

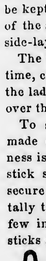
The first operation is to dampen the straw or reed thoroughly with water, in order to render it pliable, allowing sufficient time for the water to be thoroughly absorbed.

Two men should be employed, as one will be engaged in selecting and straightening out the straw, and handing it in small bundles to the operator on the roof.

For thatching stacks, the workman commences by laying the lower end of the bundle (that is the cut end of the straw) on the eaves of the stack, leaving about 12 or 15 inches to project over. Each of these buudles is secured to the stack by a forked stick driven into the hay with the prong over the rope; Layers of bundles are then put on successively, one over the other, until the top of the stack is reached, each bundle covering the lower one for two-thirds of its length. The ear-end should always be kept up, so that no water can enter the cut ends of the straw, and care should be taken to pack each side-layer well up to the next one.

The workman should do about a yard in width at a time, continuing up to the ridge, to avoid shifting the ladder often, and so as not to be obliged to walk over the newly-laid straw till it is fastened down.

To secure it permanently to the stack, a rope made of the straw twisted tightly; or, if neatness is desired, a split hickory or other tough wood stick split in two, similar to the hoop-rods used to secure packing-boxes or barrels, is placed horizontally the whole length of the stack, commencing a few inches above the eaves. These ropes or cleft sticks are fastened tight over the straw by means of



small stakes of tough wood bent as in Fig. 3, driven down into the body of hay, thus compressing the thatch.

These ropes or rods should be put from 3 to 5 feet apart, according to the compactness of the thatch, and as many prongs, or *spurs* as they are called, used as will keep them well in place.

The thatch is then carried down, and cut square off at the bottom, leaving the projection 6 or 8 inches over the eaves. The topmost layer or ridge is made tight by curving the layer on one side tightly over that on the other. Short sticks are then run through both a few inches below the top. A rope of straw is fastened at one end and twisted around each stick, returning it round both sides.

The annexed illustration will serve more clearly to explain the mode of proceeding. See Fig. 4.

Fig. 4.

The preparation of the straw for a house or other building is similar to that above-described. On the rafters (half the usual number only being required) the ordinary shingle-lath is laid as for shingling.—There are several modes of putting on the straw over the the lath, the following being the most simple:

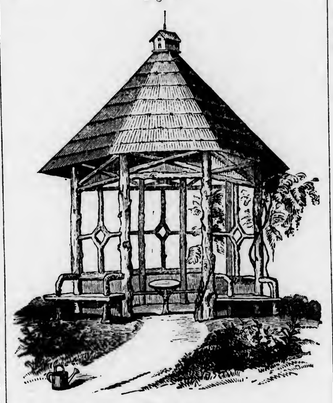
Each bundle, as it is put on, is secured by strong tarred twine wound round it and the lathe, and tied at intervals; the work is thus continued to the top of the roof. The end of the bundle next above the first one covers the tie, so that it is not seen. When the layers are all on, the cleft rod is then run around the eaves and along the sides and top, and secured by spars or wooden staples, as above described.

Another mode is to secure the bundles by bent sticks, thus bringing them across the rope of the bundle, and tying them with tarred twine below the lath. See Fig. 2.

In either case, where a strong, neat job is required, it is usual to put yet another layer of reeds over all, not tied in bunches, which is secured by a series of cleft rods compressed tight down over the thatch by a tarred twine threaded on a coarse needle, and then put through the whole thickness of the straw, and tied below around the lath.

I send you a sketch of a rustic Summer House, Fig. 5,

Fig. 5.



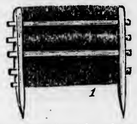
and of a Boat House, Fig. 6,

Fig. 6.

covered with thatch. The cost of such a covering is comparatively trifling when compared with other roofing. Two men accustomed to the work will prepare material for, and put up complete, a square of 100 superficial feet per day, thus costing $2 per square, in addition to the value of the straw, which, even if necessary to be purchased, will not make the whole more than $3 per square.

A covering of common hemlock boards, with battened joints, will cost more than this. Good tin, with the necessary sheathing on the rafters, painting, &c., will cost $12 for the same quantity, and shingles or slate from $6 to $9.

Thatched hurdles, I think, would be found very useful for many purposes, say for protecting tender plants during winter, or sheltering exposed yards.—They are made by interweaving the straw (at the same time packing it tightly laterally) alternately between and behind and before the rails of a wooden hurdle, thus:



The straw should be kept in place by a tarred twine tied to the side rail of the hurdle, drawn tight at every foot or so by sewing it through the straw, and carried back at each stitch.

These hurdles are easily moved from place to place, and if properly taken care of, will last several seasons. J. C. S.

CATAWISSA RASPBERRY.

BY J. PIERCE.

LINNÆAN HILL, near Washington, D. C., January 14th, 1859.

Editor of Gardener's Monthly:

DEAR SIR—Having myself introduced the Catawissa Raspberry to public notice, and having still much interest in its success, I feel it my duty to tender through you my thanks to your correspondent "Frankford" for what he has been pleased to say in its defence.

"Frankford" says—"Now, sir, I am rather surprised to find, by a report of the Pomological Convention which I have read, that that body considers it worthless, and should be glad if you could tell me why."

In reply to this, in the first place, I will say that what Frankford has read, is not the report of the Convention. The Pomological Convention have not yet published their report. I must say I was somewhat surprised to find in the *Horticulturist*, in *its* report of the proceedings of that Convention, that they had stricken it from the "list of those that promise well."

I was present at the meeting of the Convention when the subject of Raspberries was called up, and think I can safely say that I distinctly recollect that when the President called "Catawissa," Dr. Warder, of Ohio, said, "Pass it over." And I must say I was not a little surprised to find in the report in the October number of the *Horticulturist* the following:

"Catawissa.—Dr. Warder: Strike from the list. Carried."

This is an error that their reporter might readily have committed. The President tells me that he does not distinctly recollect what was said, but that newspaper reports have not been considered strictly correct.

In answer to a letter addressed to T. W. Field, the Secretary of the Society, I have received the following, which you will please publish.

[MR. PIERCE'S communication is accompanied by a letter from Mr. Field, the Secretary of the Pomological Society, in which Mr. Field says, the only notice of the Catawissa on the minutes of the proceedings is the remarks of Mr. Barry—"Catawissa: left where it is;" and the question whether this variety was or was not rejected by the Convention is thus semi-officially settled.

We were favored by three kind friends with reports of the proceedings, and which, indeed, we promised to give in our January number. But Mr. Field, kindly promising to give us advanced sheets of the proceedings at an early period; though none the less obliged to our friends for their kindness, we thought an official report worth waiting for. Since writing the above, we have received the report, and find it in the list "promising well."—ED.]

MANETTII ROSE STOCKS.

BY JOHN SAUL, WASHINGTON, D. C.

Mr. Editor:

PERHAPS among no other class of flowers has the skill of the florist effected as much improvement as in the Rose. From being a summer flower, and consequently of short duration, it has been made to afford us continuous blooming until the icy hand of winter is upon us. It was, as it were, but yesterday that that exquisite class, the Hybrid Perpetuals, was called into existence, and we already possess nearly every shade of color, of the most brilliant tints, in shape perfect, and possessing the most delicious perfume.

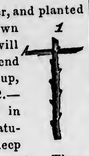
Ere long we shall have a delightful group of autumnal mosses. Already we have a good beginning with those beautiful flowers Madame Ory and Salet. Bourbons, Noisettes, and Teas have been likewise improved, so that the pearls of a few years past are forgotten in the gems of to-day.

My present purpose, however, is not to review the classes of roses as they now exist, but to call attention to the best stock on which to work them, and how the same should be performed. I am fully aware, on the outset, that a prejudice exists against budded roses. In England, and on the Continent, nearly all their roses are budded; and many of our most beautiful, yet delicate-growing, Hybrid Perpetuals and others succeed much better worked. They grow more luxuriantly, bloom finer and more profusely than on their own roots, suffer less during the heat of summer, and have greater power of resisting cold, The great objection urged against stocks is, their liability to sucker; yet this may be obviated, to a great extent, though not overcome, as I shall presently show. The stock most generally employed in Europe is the Dog Rose—(though of late Mr. Rivers and other persons have cultivated extensively the Manettii)—a stock that I have not found to succeed well in this country; our summers are evidently too hot for it, whilst it is very much disposed to sucker. The Boursault has been used as a stock by some, yet it is unquestionably the most worthless of any. It is soft and pithy, and all plants budded on it will be short-lived. Were the union possible, I would as soon have a rose worked upon a raspberry cane as on this stock, so perishable and worthless do I consider it.

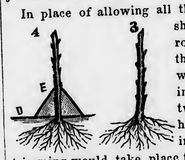
Hybrid China *Celine* is frequently employed as a stock in England; and an admirable one it is, being a vigorous, free grower, with very firm, hard wood, on which many varieties succeed well; it suckers but little.

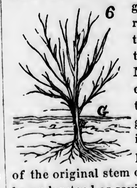
Descartes—This variety, now strongly recommended as a stock in England, I have grown extensively some ten or twelve years. It is of the Hybrid Bourbon class, a free, strong grower, with clean, firm wood, and is more suitable for working the Bourbons and some others on, than the Hybrid Perpetuals.

The Manettii Rose is unquestionably the prince of rose stocks. Under our most scorching suns, and in the severest droughts of summer, I have never known it flag or be checked in its growth; on the contrary, it grows with vigor as well as any roses worked upon it, revelling, as it were, in our hottest weather; whilst it so admirably adapts itself to our summers; with equal impunity does it resist the most intense cold. True, many of our free-growing Hybrid Perpetuals and Bourbons grow freely on their own roots; again, there are others among even these which are the most beautiful, that want a little vigor and assistance to enable them to grow freely and develope their flowers to perfection, and for these a stock is indispensable. The Manettii stock roots with the greatest freedom. Cuttings of the ripened wood 8 to 10 inches long, taken off during fall or winter, and planted either in the fall or early in spring, down to one eye, as shown in Fig. 1. *A* will root readily, making fine plants by the end of the first summer, and, when taken up, having much the appearance of Fig 2.—Persons inexperienced in rose-growing would naturally enough plant this deep enough to cover all the roots. There would be a great mistake, and I have no doubt it has led to much of the outcry against the suckering of budded roses; for it must be evident to any cultivator that a plant like Fig. 2, set down to *B*, will throw up suckers from all parts of the main stem (what was formerly the cutting) down to *C*; and it matters not how frequently these are cut off as they appear above the surface of the ground, others will be produced from the sides and base of these suckers, appearing daily during the growing season. Whilst such a plant is in existence, it will be a perpetual pest in a garden, as its great propensity to suckering can never be overcome. No wonder that persons who have experienced such annoyance should exclaim against budded roses! Let us now see if we can, in a measure overcome this objection, and give the amateur a stock which, while it produces his most beautiful varieties in great beauty, will not give a never-ending job in divesting them of suckers.



In place of allowing all the roots to remain, it should be divested of all roots and buds down to the extreme point of what was the cutting as shown in Fig. 3, leaving about two buds at the top, the head or young shoots having been cut off. This trimming would take place twelve months after the cutting had been planted. Our stock is now ready for setting out, performing which the roots only should be covered, leaving nearly all the stem (of what was the cutting) above ground, as shown in Fig. 4 *D*; but in order to steady them, a little earth is drawn up to the stem, as Fig. 4 *D E*. Treated in this way, they will be fit to bud from the middle of June to the first of October, and present much the appearance of Fig. 5. When budding is about to be performed, the soil, as shown in Fig. 4 *D E*, should be drawn down with a hoe; and it will be found that the bark which had been covered by soil is in a much better state for budding than what has been exposed to the atmosphere. This operation should be performed as low down as possible, as in Fg. 5 *F*, leaving not more than one inch of the original stock below the point of insertion. They are headed down the following spring; and, after a summer's growth, will be fine plants. In replanting, they should be set in the ground an inch or two below the bud, as shown in Fig. 6 *G*. Managed in this way, roots are emitted to the point of union of the bud; the plant swells and grows without the risk of breaking off; whilst few suckers are produced, from the fact that little of the original stem or cutting remains. I must not be understood as saying that no suckers are produced,—a few occasional ones are, for the first year or two, which are easily removed; but after the plant gains strength and vigor, few, if any, will appear.





If amateurs and nurserymen will take the trouble of growing and preparing their stocks as I have just described, they will find it eminently useful in developing the beauties of their choicest flowers; whilst, in a great measure, it must do away with much of the objections urged against budded roses.

The following varieties bloomed beautifully in my grounds the past summer, and can be relied upon as among the best:

Cardinal Patrizzi (Hy. Perpetual), a seedling from Geant des Batailles, deeper in color, yet very brilliant; a beautiful flower.

Colonel de Rougemont (Hy. Per.) Bright rose, finely shaped; a very large and truly fine rose.

Comtesse d' Orleans (Hy. Per.) Delicate pale rose, large double and finely shaped.

Duchess of Norfolk (Hy. Per.) Deep rich crimson, large, very double and beautiful, most vigorous and luxuriant in growth.

General Castellane (Hy. Per.) Brilliant crimson, very large and double—beautiful. I have found this variety succeed much better worked on Manettii than on its own roots.

General Jacqueminot (Hy. Per.) Though a comparatively new rose, it is becoming well known and popular. Deep brilliant crimson, very large, a superb rose.

General Simpson (Hy. Per.) Light brilliant carmine, exquisitely shaped; a most beautiful rose.

Gloria de France (Hy. Per.) Deep brilliant crimson, large and very double; one of the finest new roses.

Gustave Coraux (Hy. Per.) A seedling from Robin Hood, deeper in color, deep crimson, larger, more double and of the same exquisite shape.

Lord Raglan. Brilliant crimson scarlet, very double cupped, a luxuriant grower, and unquestionably one of the finest new roses.

Madame Dumage. Bright red, flowers very large; a fine, vigorous, robust grower and free bloomer.

Madame Knorr. Brilliant rose, large, double, and a free autumnal bloomer.

Madame Masson. Deep purplish crimson, very large and double; a magnificent rose.

Madame Vidot. Delicate, wax-like pink, finely shaped; vigorous, free-blooming; a beautiful flower.

Ornament des Jardins. Vivid crimson, very double, a profuse bloomer, and a very pretty rose.

Pæonia. Deep crimson, very large and double; a strong grower and free autumnal bloomer.

Naomi. Delicate blush, flowers large and double; a very fine rose.

Sir John Franklin. Brilliant crimson, very double, vigorous grower and free bloomer; a most excellent rose.

Triomphe de Paris. Very dark crimson, free bloomer, distinct and good.

Triomphe de l' Exposition. Clear light crimson, large and double, a vigorous grower and abundant bloomer; a superb rose.

Arthur de Sansal. Deep crimson purple, very double, good shape and free-bloomer; a very pretty flower.

Emperor Napoleon. Intense, brilliant, shaded scarlet, robust grower and free bloomer; altogether a most desirable rose.

Madame Desire Giraud. Pale flesh, beautifully striped with crimson, distinct and beautiful.

Prince Noir. Dark blackish crimson, large and free bloomer; fine.

[MR. BEATON, in the *Cottage Gardener*, recently said, no good gardeners would graft roses on Manettii stocks, so as to suffer suckers to grow. After reading Mr. Saul's excellent article, it certainly will be their fault if they do.—ED.]

A FRIEND of ours, writing from Union Springs, Alabama, under date of January 20th, 1859, says:

"From experiments made, I am satisfied that this latitude is much better suited to the grape than in the vicinity of Cincinnati. I know a gentleman not very far from me who says that last year he made from three acres of grapes 1600 gallons of wine and 160 gallons of grape brandy."

WINE-MAKING.

BY D. S. DEWEY, HARTFORD, CONN.

Dear Sir:

About a year ago a Society was organized in this State, composed chiefly of those active members of our Agricultural and Horticultural Societies who take a special interest in the culture of the vine, and the production of native wine, under the name of the Connecticut Grape-Growers' Association. As a member of this body, perhaps I can communicate a few facts,—elicited at its recent annual meeting,—which may interest your readers generally.

The quantity of wine produced in this State for the year 1858, will somewhat exceed 300 barrels, according to the estimate of our best judges. This is supposed to be about double the amount of the preceding year's vintage. It is chiefly made from the juice of the native (Fox) grapes. (One individual has made 1000 gallons.) Samples of the annual products for the last seven years were tasted by the Committee on the Whole, and the subject was freely discussed and opinions and experience fully compared.

It was decided, by resolutions to that effect, that the ripest grapes should be selected for the production of the best wines,—that they should not be subjected to very severe pressure,—and that no addition, of any kind, as a general rule, should be made to the "must." Great care should be exercised with regard to the purity of containing vessels; and the temperature at which wine is kept should be made to conform, as near as possible, to the average temperature of the climate.

The samples exhibited this year were, generally, superior to those of the preceding; and those which contained the least sugar, as well as some which had none, were the best which had been presented before the Association.

Catawba vines, for vineyards, have proved entire failures, and Isabellas are not reliable. Some plantations of the Hartford Prolific have been commenced on a small scale, as the vines are not yet procurable at vineyard prices.

The Diana, Isabella, Hartford Prolific, and Concord were recommended by vote, (in the order named,) as the best for general cultivation. The Rebecca and Delaware were considered hardy, and promising to rank among the best, but not yet sufficiently tested.

Respectfully yours, D. S. Dewey.

P.S.—Our gardens are pretty effectually mulched with a covering of some twelve or fifteen inches of snow, which is quite fortunate, particularly for such things as your Brinckle's Orange Raspberry and Raabe's Clara Grape, especially as the condition of the weather hereabouts may be inferred from the statement in one of our local papers, that "no record exists of two days together of such intense and steady cold, with the mercurial column below zero all the time for fifty hours." These days were the 10th and 11th of January, 1859. D. S. D.

[Our thermometer stood at 6° below zero on the morning of the 10th of January at 8 o'clock, A.M.; at noon the same day 2° below zero, and a "blazing" sun all day! There was, fortunately, little wind, and, so far as we can yet judge, less damage has been done than we have heretofore observed under much higher temperature. Our best Deodar Cedar was slightly browned last year the day after the thermometer fell to zero. So far, this season it is as green as ever.—Ed.]

HISTORY OF THE VERBENA.

BY AN OLD FLORIST, PHILADELPHIA.

Mr. Editor:

I see a few notes going the rounds about the introduction of the Verbena,—*the plant of the million.* I have taken it upon me to introduce the subject to your readers, that they may be fully *posted up* in all matters of fact, and as your paper will be handed to posterity, so will this epistle.

Verbena melindres, the first scarlet, was introduced into this country by the late Mr. Thomas Hogg, of New York,—*the man of truth*,—and by him distributed, at a reasonable price, to his customers. I purchased a small plant at his nursery in 1832 or 3; in 1834 it was sold by the wagon-load in the Philadelphia market, and was for two or three years the leading plant. In 1837 *Verbena Tweediana* was introduced simultaneously, and on board the same ship, by a Philadelphia nurseryman and Mr. George C. Thorburn, of New York. It was considered a superb affair, and sold readily at three dollars a plant. In 1838 Mr. Eyre, supercargo of the ship Globe, brought from Mr. Tweedie, of Buenos Ayres, a paper of Verbena seed, from which was raised the white, rose, pink and purple varieties. The flower of the White Verbena was exhibited before the Pennsylvania Horticultural Society, and crowds of visitors went the next day to a florist's in South Twelfth Street to see the plant.—There was the same year raised in the Glasnevin Botanic Garden, near Dublin, Ireland, a White Verbena, which they called V. teucroides. The stock was sold to a Scotch house for £40, and the Philadelphia variety was sent to an English house; when the two sorts were brought into comparison, they were considered the same. The pink and rose variety went to Edinburg; one was there named Neillii, and the other the name of the grower. The purple variety was in part spirited away from the grower, and the balance was sent to the Hendersons, of Pine Apple Place, London, and was sent out as Verbena Hendersonii, and had what was called a great run.

[*To be continued.*]

[We are assured our readers will be delighted with the prospect of a complete history of this popular flower, and which the respected writer of the above is so well qualified to give. Even at this early period since its introduction, some of us "juniors" wonder what our fathers could possibly have had to adorn their gardens before the Verbena was brought out. Any thing about the plant is sure to please.—Ed.]

SHANKING OF GRAPES.

BY ROBERT BUIST, PHILADELPHIA.

This is a term that is used when the parts of bunches of grapes dry up, break off, or shrivel before maturity, either in whole or in part.

We have often heard of this fatality amongst grapes, but never saw it till the past season. It has been considered a disease caused by a want of proper drainage or the roots penetrating into the cold soil. Others have decided it to be the result of a deficiency of uniting material amongst the roots. Our grapery is 80 feet long and 24 feet wide, with a double pitched roof, kept up expressly for testing the character and quality of the article, and proving the identity of all foreign grape vines that we can obtain.

Our plants, the past season, broke well, set finely, had passed their first summer pruning, with a good prospect of a fair crop. In the first week of July orders were given to tie in the leading shoots and stop the laterals. This order was obeyed by denuding the vines of all young growth down to the bunches. My attention was attracted to the strange appearance of the grapery, and I at once saw the fatal error, but did not expect to see the disease called Shanking. I examined the young roots of the vines, and saw the white rootlets becoming brown, and in a few more days darker, soft and decayed. This I fully expected, as experience has taught me to expect a destruction of roots corresponding to the destruction of foliage and young growth that the plant or tree may have been subjected to in its luxuriant growing state. I fully expected small fruit and small bunches, but was astonished to find, not only that result, but a general shanking of the bunches all over the house. My crop was nearly a total loss; but may, Mr. Editor, be a gain to some of your readers. I have made a note of it, and now tell you what I think produces shanking of grapes.

This I have marked as another notch against the severe summer pruning of the grape, either for indoor or out-door culture.

Yours truly, R. Buist.

ON THE CULTIVATION OF THE AMARYLLIS.

BY WILLIAM PAYNE.

This family has seldom received the attention it deserves. We find a few of them here and there,—many of these without a name.

If you inquire how this class of plant should be managed, this is *generally* the instruction given: "The plant must be potted in a small pot in spring, in sandy soil. When it has bloomed, then it requires no further care or attention until next potting-time." But when a bulb goes to rest in its *natural state*, after the production of leaves and flowers, the decay is *gradual*. All the sap in the flower stem and leaves which has not been actually assimilated, returns to supply the bulb with some of the original nourishment, and to replace and restore some of those elements requisite for the future plumpness and continuous well being of the plant. It will at once be seen that when a bulb has been *forced* into growth, and as soon as the flowers are over, the leaves pulled off and thrown away, and then the plant placed on some dry shelf for months, where the soil frequently becomes perfectly dry, this sort of *rest*, as it is called, is very different from the natural rest of Nature.

Supposing that the general method of cultivation was not in strict accordance with the theory of Horticulture, some six years ago I determined on trying a method founded on a more rational view of nature, and the result has been of the most satisfactory character. I used large pots and light, rich soil. I destroyed no leaf or flower stem until it was thoroughly decayed, and when the bulbs *would* go to rest, I kept them moderately warm and moist. I never force these plants to rest, but try to keep them growing.—When they show a disposition to rest, then I remove them to a cooler and dryer house, where they gradually become dormant. But some of the "Amaryllis" tribe will keep constantly growing in size and substance, until they become immensely large, and are then capable of producing blooms of an extra size. I feel satisfied that if gardeners in general were aware of the real worth of these plants, they would become *universal* and indispensable.

When any of my bulbs have had rest, and show signs of growth, I remove all the *old soil* and roots completely away from them. I then give them a good large pot, drained thoroughly, generally by turning a small thumb-pot upside down to cover the hole, and then quite cover that over with broken pots, or charcoal lumps, or rough sods. I use for compost rough *sods* of fibry loam, about the size of a hen's egg, with about half the quantity of half-decayed leaves, also in a rough state, with a little sand. I top-dress for the sake of a neat finish, with the fine soil shaken from the other mixture. When this is done, I remove the plants to a stove where the temperature ranges from 60° to 70° Fahrenheit. I give plenty of water daily when the plants are growing freely, with an occasional syringing, to freshen and keep them clean, for the thrip is liable to attack them if the atmosphere becomes too dry. These keep constantly growing on, *if possible*. The *Amaryllus aulica* seems, in particular, a continuous grower on this system. I pot a bulb of *A. aulica* of about 8 inches circumference in a 10-inch (diameter) pot. In the course of a year this bulb will require a still larger shift, and will have made several fine bulbs, which, if permitted to remain until a second year, will flower finely.—They generally flower twice in the season. We have had as many as six spikes of flowers from one pot.—As many as ten blooms open from one pot at a time, presenting a magnificent sight. Some of our flower-stems have been fully four feet high, and four inches in circumference. In one or two cases, we have had four such stems from one bulb, with three blooms on the stem. My largest bulb is seventeen inches in circumference. My largest pot full is in a pot fifteen inches in diameter, and requires a still larger shift. This season I have impregnated some of the finer varieties, and have now a number of fine "Rhizocarps" ripening.

We subjoin a list of a few which are distinct and good:

Amaryllis aulica,	Amaryllis vistata.
" Ackermanii,	" poittacinus,
" Belladonna,	" striatifolia,
" formosissimus,	" marginata
" Johnsonii,	venusta.

Note.—This last is one of the finest, if not *the* finest, in this family. There is hardly a more showy and elegant plant in cultivation than it. It is large in flower, and is of a white ground, striped with broad stripes and vivid scarlet. W. Payne.

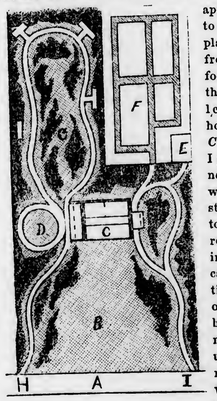
[We are obliged to our correspondent for his favor, and pleased that he has selected a topic that will command such universal interest. For the many amateurs who do not keep gardeners, no plants are more valuable than bulbs of any kind; as, unlike other plants, they are not liable to be irreparably injured by a moment's delay to water at the right time. To professional gardeners, the unusually fine results proceeding from our correspondent's practice will be very interesting.—Ed.]

ON IMPROVING COTTAGE LOTS.

BY S., WESTMORELAND CO., PA.

Dear Sir:

Being fond of "building castles" on paper, as well as "in the air," and also of "dabbling" in horticulture town lots, I sit down this stormy evening, pencil in hand, to endeavor to sketch a plan for the "improvement" of a lot 150 x 300 feet which I own, and on which I contemplate erecting a house for my own use this spring. Not having any "landscapers" to consult, I send it to you for your own and your readers' criticism. I would not trouble you, were I not convinced that the subject will be of interest to many who are about to build. And so, without further apology, I proceed to describe the plan. *A* is the front street, *H* the foot-path, and *I* the carriage-way leading to the house, *B* the lawn, *C* the house, which I propose to build nearly square, and with the side, instead of the front, to the street. The reason for so doing is to have the carriage drive entirely on one side of the house, thereby preventing the necessity of cutting up the lawn, and not interfering with the walks and pleasure-ground on the other side of the house, and also to have a "porte cochere," at which to alight in wet weather, at one end of the hall, and at the other a piazza. *E* is the stable, which is easy of access from the carriage-way. At *B* I propose having a small geometrical flower-garden, and at *G* a small pleasure-ground, with shrubberies, rustic seats and flower-beds, and at *F* the kitchen-garden, which should be concealed by shrubs.



The greatest difficulties that I apprehend I will have to contend with in carrying out my my plan is: First. Having the side of the house to the street. Secondly. Having but one *walk* from the street, so that frequently, to save time, the carriage-way will be used instead, although I cannot see that it can be avoided in any way; and thirdly, that I am endeavoring to make too much of my small lot, and I fear that it will look paltry and of too much pretension. I do not care much for this objection as long as I occupy the house myself, but I would not like to build and lay out a place that would be objectionable to others, in case I wish to sell it. If you think these objections are serious ones, or if you can suggest any alterations or even substitute another one for it, you will confer a great favor on me, as well as hundreds of your readers who are about building and laying out their grounds.

Yours, &c., S.

[Your plan is a great improvement on what is very often done with such a lot, though capable of some amendment. A great deal depends on the ground itself. If there are no views to be cut off, we should have a few specimen trees scattered over the lawn in front. We have made a cut of your plan, thinking it will afford some useful hints to others.

It is a good idea to have the entrance on the side of the lot. The objection to having the side of the house to the street may be removed by having a piazza along the front, or arranging the building so that a bay window should project from it. On the whole, we like your ideas. Plans like these can seldom be closely imitated, but they afford useful hints.—Ed.]

THE PELARGONIUM.

BY W. S. WARD, GARDENER TO T. G. WHYTAL, ESQ. West Roxbury, Massachusetts.

Sir:—

I have two reasons for writing; one is to throw in my mite towards the general cause which your paper promises so ably to advocate; the other my love for the Pelargonium and my desire to see it grown well. I do not think it advances plant-growing, as a general thing, to teach that you have only to pot them in a little loam and manure, and that they then will grow themselves. As far as my experience goes, to grow *any* plant *well*, it needs great care, and particularly if you wish to excel. I think that by our cultivators erecting the landmarks, and showing us how to avoid the breakers, they will serve the interest of the florist, as well as that of the amateur; for plant-growing being a labor of love, the young cultivator will be saved a great deal of disappointment by learning what to do and what to avoid. There is no plant in the floral kingdom so well pays for proper care and good culture as the Pelargonium; and I might say, no plant needs more care to grow as it ought to be grown. It is one of those plants we find in every collection; but in how many is it grown as it might be? With our long winters, where we have to keep up fires so many months, it is hardly possible that we can compete with the growers in the vicinity of London; yet, with good management, we can grow them in a very superior manner.

What is more beautiful than a specimen Pelargonium, from two to three feet across, loaded with its gay and gaudy colors? If it is delicacy that we want, we have such varieties as Mad. Von de Weyer, Delicatum and Eulalie; if purity, Pearl, Blanche and Silver Queen; and if we can imagine coquetry in flowers, the Diadematum class exhibits it. If we like a little more boldness, there is old Forget-me-not, Lady Drummond and Majestic; and lastly, if we prefer grandeur and dazzling beauty, we have only to see Optima, Phœloe and Commander in Chief to be satisfied with the various charms of our favorites. In growing the Pelargonium, the great trouble with most of us is the want of room, for no two plants ought to touch. Two of the chief elements in the cultivation of this tribe of plants is an abundance of light and air; without these, it is almost impossible to grow them well. One great point in growing a specimen is to get a good start, or what gardeners call *making a bottom.*

The plan I follow is to take cuttings as early in the season as possible, say the beginning of June. Place them round the edge of a six-inch pot; set them in a shady position in a close frame, or, if convenient, I give them a gentle bottom heat. After they have rooted, which will be in about a month, I pot them in three-inch pots, replacing them in a close frame till they make a start to grow. I then begin to give them air, mornings and evenings, to harden them, when I pinch the tops off, which will cause them to break and throw out side shoots. When the pots are full of roots, I shift them into five-inch pots, giving air freely night and day, taking care to keep the sashes close on hand in case of a storm; for I find they dislike heavy rain.

A Pelargonium, to grow it well, ought never to have its foliage wet, particularly in the fall of the year. After the side shoots have grown four or five inches, I pinch them the same as I did the leader, which causes them to throw out a number of shoots, forming full foliage near the pot. I now begin to *select* the plants I intend for specimens, which, bye-the-bye, my room being limited, I can afford the luxury of but ten or twelve. The great trouble with me is, as they are all beautiful, which to select out of forty varieties. One might say "that's a very easy matter," but I am something like a lady with forty varieties of dresses to choose from, and not one of them pleasing her; yet let her see one of the forty on her dear friend Angelina, and it at once becomes "the greatest love of a dress she ever saw," and "what would she not give to have one like it!"

I must tell you, Mr. Editor, that although I am in love with the Pelargonium family, there are some of them like some young ladies so hard to please and so fickle when pleased, that I like to be well acquainted with them before "I propose" to exalt them to the honor of specimenship. In fact, they are like some wives who were very well as sweethearts, but have to be studied in their new relation, before you know them rightly. As a rule, I in general take those I know are free bloomers, and have a good habit of growth. About the 1st of September I take the plants I selected for specimens, and pot them in eight-inch pots, let them stand in the frame for about a fortnight, and then I begin to stint them for water, giving them none except when I see them suffering. In housing them I take care they shall have a shelf as near the glass as I can get it, where I can give them a free circulation of air, giving them water but once a week. After the shortest days are past, I take small twigs and tie all the shoots as near the edge of the pot as I can get them, giving them a little more water as the days lengthen. By the middle of March I pot them in ten-inch pots, giving them now a full supply of water as they need it. As soon as they begin to show bloom, I water them twice a week with liquid manure, till the buds begin to show color. I then take stakes and tie them out to the desired shape, and in the month of May they are worth looking at.

In potting them, I use about two inches of broken bricks, on the top of which I place a little moss.—Some prefer charcoal to broken pots. I have used it, and do not find it makes any difference. The soil I use is about equal parts of old sod from the top of a pasture, leaf and mould from the woods, and sand. In the spring potting, I crumble up a little well-decayed cow-manure.

[We are pleased to receive so excellent a practical article from one whose great success with Pelargoniums is well known among the "craft."—Ed.]

VINES FROM EYES.

I have been experimenting with all the different modes of propagating vines from eyes, and find the following the most successful. Take good strong, hard and well-ripened shoots of the last year's growth.—Cut them with a sharp knife from a quarter to *half an inch above a bud*, and from an inch to an inch and a half below one, according to the size or strength of the shoot. Place them in an upright or vertical position in sandy rich soil, and barely cover the upper part of the cutting. I have found cuttings formed and planted in this way to root with more certainty and celerity than in the old way of planting them in a horizontal position with as much of the wood left *above* the bud as below it. All the wood left above the bud is a disadvantage, being liable to canker and rot. Some persons cut a notch immediately opposite to the eye, supposing that it expedites the rooting, but I have found no advantage from it, but rather the contrary. Yours respectfully, J. H.

Buffalo, N. Y., Jan. 19, 1859.

The Gardener's Monthly.

PHILADELPHIA, MARCH 1, 1859.

OUR CONTRIBUTORS.

In another column will be found an excellent practical article on Thatching, from the pen of Mr. J. C. Sidney, the well-known Architect, Landscape Gardener, and Civil Engineer, to whose genius so many of our most beautiful country-seats and pleasure-grounds owe their reputation as models of good taste.

It is remarkable that this subject should have been so much neglected. Our friend could not have hit on any thing more calculated to excite general interest, than this one of thatching. That the suffocating, oven-like structures, with wooden or metallic roofs—mis-called "summer-houses"—should be endured so long in the face of so excellent a non-conducting, cool material as straw, is a sad reflection on our "universal Yankee genius."

Our readers will, we are assured, feel with us a high degree of pride in the fact, that the chief practical minds in every part of the Continent are exchanging their ideas so freely in the *Gardener's Monthly* for the common benefit. Indeed, new ideas and valuable suggestions crowd so rapidly on one another in its columns, that we are not sure but that it will have the very unusual objection made to it *by some*, that it is impossible to digest fully, from month to month, the many useful and practical hints and ideas that our friends favor us with.

The French have a vice which they term "*embaras de richesses.*" It has never yet spread to our Continent, and so we have, of course, got no name for this peculiar failing. But whenever we appear to succumb to this weakness, and our readers feel that they have "too much of the good thing," we trust they will not hesitate to "apply the rod."

Seriously, we would say to our readers, that it is not our intention to jog on in a snail's pace on the old beaten track. The height of our ambition is to make this periodical the reservoir into which the practical experience of our best Horticulturists may be gathered, and from which it may be distributed over the whole continent.

We have studiously avoided parading any of the hundreds of flattering testimonials so lavishly bestowed by the press and our numerous friends on our efforts; but we have not the same reluctance to publish our faults and failings. "Consistency" may be "a jewel," but "progress" will demand that it should at times be brightened by a recantation of old opinions. We therefore hope that any views advanced either by correspondents or editor will be, if thought erroneous, freely but courteously criticized.

TRAINING.—AN ANECDOTE.

In our January issue we alluded to the great ingenuity of the French in training fruit trees. As an illustration, a lady friend sends us the following anecdote:

An American gentleman in France last fall, and acquainted with one of the chief Horticulturists of the country, was invited by him to call and see a sight he had prepared in expectation of a visit from the Emperor, and which as he was afraid the Emperor would defer his visit till too late to see the compliment he had prepared for him, he invited his American friend at least to see. He was conducted to the garden, and there on the walls, one on each side of the entrance, were two peach trees trained in the most skilful manner, and covered with the most beautiful fruit—large, red and rosy—that he had ever seen; and all this fruit so arranged on the wall as to represent letters. Those on one tree formed "L' Empereur," (The Emperor,) on the other, "L' Imperatrice," (The Empress.) The effect of this pretty conceit is described as being extremely beautiful, and the great skill required to bring about the result worthy of admiration.

THE DRAG HOE.

Like many men who start into the world of business with large aims and a small capital, we have had our share of checks and discouragements. Many a time when we have been nearly overwhelmed by expenses, and the last dime of our earnings as a professional gardener has been plainly visible in the toe of the stocking-bag, we have had to trust to our ingenuity to invent some labor-saving process that would keep that little bit of silver of, to us, "curious workmanship," a little while longer in its woollen retreat. One of these "notions" we now present to our friends in the shape of the *Drag Hoe*. This little tool saved us many a hundred dollars, and has enabled us to dispense almost entirely with horse-labor in the cleaning of nursery rows of trees. Instead of now having our rows three or four feet apart for the use of the Horse Cultivator, we plant them now but two, taking out and transplanting each alternate row every second year. Where land is valued at its "thousands" per acre, this is an important item.

With this fork a man or boy can do in one day what it would take him seven to do with a common hoe, and much more advantageously for the crops. It has to be used, however, before the roots of the weeds penetrate more than half an inch deep in the soil.—"A stitch in time saves nine," is a necessary maxim in its application. Hoeing in very weedy ground will probably have to be done once or twice oftener in the season than would be required with the common hoe: but then this surface-loosening is a great help to the plant in dry weather. No *mulching* will ever be required where the soil is often stirred. No better non-conductor exists than the atmosphere,—and by admitting air freely to the surface-soil, we prevent much of the evaporation that would otherwise ensue. Any village blacksmith can make one of these hoes.

There is an article very similar to this sold in the implement stores, under the name of "Potato Drag," but the tines are rather too broad to pass freely through the soil. The tines should be round, except at the point which is slightly flattened. If you commence using this hoe soon after the ground is dug in the spring, and repeat it every week or ten days, a man can draw it almost as rapidly as he can walk.—The tines should be at right-angles, with the handle so that when it is used it will be at an angle of about 45° with the earth. The engraver, in the cut annexed, has represented the tines as being too much bent.

PERPETUAL STRAWBERRIES.

Almost every season brings the advertisements of new perpetual strawberries. Like the comet, they take us very much by surprise, and their course to our gardens is marked by much the same train, and received with the same admiration, as we see follow on the comet's wondrous tail. No sooner, however, do they come near enough for us to get a fair glimpse of them, than, like the great celestial luminary, they recede from our view more rapidly than they came, and are soon forgotten and lost to us for ever.

Once we had faith in that horticultural astronomy which predicted the advent of some perpetual strawberry star. The savans learned in the science assured us positively that a new body had been discovered in the constellation "New Orleans." It was considered a genuine planet of the first magnitude, and named "Crescent seedling perpetual," from its connection with that city of the moon. Patiently we waited its appearance in our own grounds, and made every preparation to observe the distinguished stranger in his best aspects when he appeared; but, behold! "he came, *we* saw, and he vanished." The solidity of his planetship was but a myth,—a mere cometary nebulosity,—and he was as quickly gathered to his fathers as his ancestors had been before him. Still the race continues to appear,—some with more brilliancy than others,—sometimes a mere second crop in some cottager's garden; at others a "Delices d' Automne."

Now, are these "celestial visitors" to be considered something like meteoric forms,—called into existence for the purpose of a mere "blaze," perfect when they have once made a "dazzling show" in "horticultural space," then to burst and disappear? or are they the nuclei of "new worlds," like all new beginnings, imperfect and incomplete,—foreshadowing to us star-gazers how glorious they will be when their destiny is complete? Will "Perpetual strawberries" ever be more than a "wandering" idea, and become a real "planetary," substantial fact?

Why should it not? The improvements in many of our fruits and vegetables have become so extensive, that we can scarcely discern the sources of their origin, and the early history of many of them is nearly lost in obscurity. Who knows the native country of the lettuce or spinage? So different are they now to any thing found in a truly indigenous state, that they might as well never have had any country to claim them.

Even the strawberry itself is scarcely able to produce a clean record to its title as a British fruit.—The first knowledge we have of its cultivation in history is that, about the year 1600, an English gardener saw a plant growing in a poor woman's garden in the south of England, the fruit little larger than peas, said to have been found in the woods by the good lady's daughter; but it is well known that they were cultivated by those good friends of horticulture in those days, the monks, in the monastic gardens, long before that time, and they may as likely have escaped from them, and become wild and deteriorated as to have been truly indigenous to the wood where the young lady found it.

But to return to *perpetual* strawberries. We have early strawberries, and succession strawberries, and late strawberries. We have them in May, and if the reports of the new California strawberry are not fabulous, we have them in September. Now, why, by a judicious system of crossing, may we not have a kind which will unite all the seasons in one individual? We all know how Mr. Knight's experiments in hybridizing the kinds already supposed to be of European origin with kinds of American birth gave to the horticultural world a race of fruit, from which all that we now the most prize have been obtained.—What may not yet be done by similar experiments? And this is our great want—experiments and experimentors,—men like Knight and Herbert and Brinckle, with the leisure and the taste, to patiently investigate, and test, and originate new ideas and practices. It is the great want of our age; affording a fine chance for any lover of his fellows to distinguish and immortalize himself.

Depend upon it, we are to have perpetual strawberries; and the man who deliberately goes to work to turn them up, will reap a great reward,—one well worth trying for, and calculated to excite the envy of us poor hacks of editors who sit patiently waiting for the good fruit to come. The French already have a kind that bears for four months,—a poor miserable thing, 'tis true, grown merely as a curiosity for edging borders, as it throws all its energies into flowers instead of runners; but no matter about the quality,—that is, perhaps, better than the grand aborigines of our present strawberry-beds.

Yes, ladies and gentlemen, we must have perpetual strawberries. All that we have yet had have been myths,—all that we now have may be no more than that; but who will be the man to show us a real genuine article,—one that will stand the test like an English Elton or an American Hovey? He is not far in the future.

Oregon Apples, the *Oregon Farmer* says, keep very well till February or March, which Californian ones will not.

CLIMATOLOGY OF THE UNITED STATES.

The Smithsonian Institute and the Agricultural Bureau of the Patent Office at Washington have for several years past been most usefully engaged in procuring, arranging and classifying an immense number of meteorological observations from different parts of our widely-extended territory, including thermometrical, barometrical and magnetical variations; and, in addition to this, the Smithsonian Institute has endeavored, and with partial success, to obtain information as to the times and seasons when many natural events transpire, such as the migration of birds, the first vegetation of various plants, the first singing of frogs, the first blossoming of fruit and other trees and shrubs, &c., with a view to establish some general rule as to the time when the various operations of the farmer and gardener should be performed in various parts of the country. We have regarded this praiseworthy effort with the utmost interest, feeling confident that the result, when obtained, will be of incalculable benefit to the whole country. Feeling anxious to know the result at the earliest moment, we applied last fall to the Institute and ascertained that all the answers obtained to the inquiries just alluded to had been placed in the hands of Dr. Hough, of Albany, a most learned and scientific meterologist, to arrange and classify. This work could not have been entrusted to any one better qualified for the duties required. Dr. H.'s work on the Climate of the State of New York is a fund of useful information, containing in a small compass the result of a vast amount of careful and laborious investigation. In a letter from him now before us (in answer to our inquiries as to the progress he has made in his labors) he states that no positive time can be fixed for the completion of his task, as the labor has far exceeded his expectations, but we hope that before another spring, his valuable labor may be completed.

GARDEN WALKS.

As this is the season of the year when many persons are laying out their grounds and walks, we would caution them against falling into the very common error of making them in a way that is better adapted to the purpose of a ditch or drain, than a walk, as shown in the annexed sectional drawing, Fig. 1, the dotted line representing the general level of the ground.

Fig. 1.

Into this ditch the gravel, tan or other material, is "dumped," and during the spring and wet weather it is generally in "fine boating order."

Fig. 2.

This drawing (Fig. 2) represents the manner of constructing a walk which will be dry in all weathers. The bed of the walk should be rather above the level of the surrounding ground, and should be nearly filled with broken stone, or brick, or cinders, with only a thin covering of gravel, say about half an inch, over the top. No weeds will grow in it.

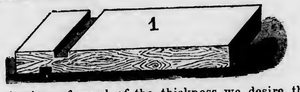
HALF EVERGREENS.

It is a singular fact that most European trees endeavor to retain their leaves much longer than indigenous kinds. The British Oak, European Ash, Weeping Willow, and some others retain their leaves till very late in the season. Recently we noticed on the grounds of Mr. Alfred Cope a fine specimen of Euonymus Europæus *nanus*, which was then (20th of January) as green as in summer. Mr. Cope informed us that it usually kept green till very late in the winter. The plant altogether forms a very handsome shrub, and this, together with its sub-evergreen foliage, should make it very popular.

GARDEN LABELS.

These are little things; but it is just such small things as these that go to make up the great whole of success.

In Fig. 1 we give a plan of making labels, by which any ordinary workman may make above three or four a minute.



A piece of wood of the thickness we desire the label, and of any width we can obtain, is cut into the length of the label. Then two saw cuts are made, as shown in the figure,—not opposite each other, as the end is then liable to break off. The labels are then split off, and one face smoothed, presenting the appearance of Fig. 2.

This plan saves many hundreds of "notches" for the wire.

Fig. 3 is an ornamental label for suspending from plants, made from slats prepared for Venitian blind-makers, and can be procured in all our large cities from the saw-mills, or from the blind-makers themselves, all ready for painting, and at a small cost.—Cut them into lengths of about three to four inches, and shape as in the cut, and suspend with brass or copper wire.

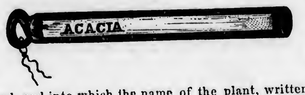
"Peg-labels" can also be made very cheaply by buying the thin strips cut out by the saw-mills in making rebates for sashes. These are already planed, of just the thickness for labels, and have only to be cut to the desired length and pointed. From two to four feet lengths are usually to be had for about two dollars the thousand.

Fig. 4.

Fig. 4 shows a neat and convenient way of marking green-house plants in pots. The label is formed of the same material as that in Fig. 3, and secured to the pot by bending the wire over the edge and down into the soil of the pot. This label, of course, will only be effective in pots above the eye level.

Fig. 5 is a neat label formed of glass, open at one

Fig. 5.



end, and into which the name of the plant, written or printed on paper, is introduced in the form of a roll. As the open end is intended to hang down, it is not necessary to close it with any thing, as the expansion of the paper seeking to unroll itself keeps it in its place. They are manufactured by Thos. Burns, 116 Walnut Street, Philadelphia.

The Bliss Patent Label is made of zinc of a circular shape. The name is written or printed on paper, and set on the face, over which a circular piece of transparent mica, cut to fit, is placed.

TO CORRESPONDENTS.

Please give us in your business letters some information as to the weather, crops, &c., in the vicinity.

GAS IN THE COUNTRY.

We have received an answer to our inquiries in regard to the newly-invented coal-gas apparatus for domestic use noticed in our January number. The manufacturer, Mr. J. T. B. Porter, of Lincoln, England, offers to supply apparatus of six different sizes, as follows:

No. 1—For the supply of 15 lights burning four hours per night, and each light equal to 10 sperm candles, 6 to the pound, - - - - - - - £40
No. 2—For the supply of 30 lights, do.. do., - - - £55
No. 3—For the supply of 45 lights, do., do., - - - £70
No. 4—For the supply of 60 lights, do., do., - - - £85
No. 5—For the supply of 80 lights, do., do., - - - £100
No. 6—For the supply of 100 lights, do., do., - - - £120

These prices include the cost of the holder, but not the tank.

The estimate as to number of lights is for ordinary coal; if Scotch Cannel, or other equally good gas-producing coal is used, the capability of the apparatus will be doubled.

From a number of very satisfactory testimonials as to the economy and utility of the apparatus, we select the following:

From Messrs. Hart & Sons, Ancholme Iron Works, Brigg, (with weekly returns of Gas manufactured by a No. 2 Apparatus on their premises.)

Ancholme Iron Works, Brigg, Jan. 27. 1858.

Dear Sir: We have pleasure in stating that the National Gas Apparatus, fixed on our premises, far exceeds our most sanguine expectations. We enclose you statistics of the consumption of coal, and Gas realized.

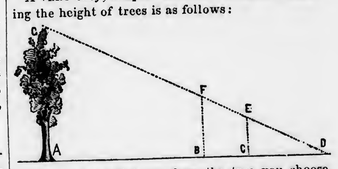
When the retort is cold, we use 56 lbs. of coal to bring it to a proper heat; after that the coke made is sufficient to keep up the heat during the time of making Gas. We feel fully convinced you cannot speak in too high terms of its utility. Yours truly,

Mr. J. T. B. Porter. JAS. HART & SONS.

Week ending	Weight of coal used, including heating of retort. cwt.	qrs.	lbs.	Total cost of coal & lime for purify'g. s.	d.	Quantity, in cubic feet, of Gas produc'd.	Cost of gas per 1000 cub. feet s.	d.
Dec. 4	4	2	0	3	0	1674	1	9¾
11	3	3	14	2	8	1577	1	8¼
18	3	3	14	2	8	1696	1	7
25	2	3	0	2	0	1007	2	0
Jan. 1	2	2	14	1	11	1227	1	8½
8	3	1	14	2	4½	1520	1	6¾
15	3	1		2	3½	1339	1	9
22	2	2		2	0	1277	1	7

MEASURING THE HEIGHT OF TREES.

A very easy, simple and correct mode of measuring the height of trees is as follows:



Measure any distance from the tree you choose, say 90 feet, and plant a perpendicular stake *B F* in the ground, of any height, say 5 feet; then at any distance, say 10 feet, from this stake, and on the opposite side of it from the tree, plant another perpendicular stake *C E*, which must be driven into the ground until the points *E F G* are brought into a range. Measure the heights of each of the stakes *B F* and *C E*, and find the *difference* in their lengths or heights. Then proceed as follows: Divide the distance from the trunk of the tree to the stake *C E*, say 100 feet, by the distance between the two stakes *B F* and *C E*, say 10 feet; then, supposing the difference in the length of the two stakes is 2 feet, multiply the product or dividend obtained as above by this difference, which will give 20 feet, and then supposing the height of the stake *C E* is 3 feet, add this to the 20 feet, which will make the height of the tree 23 feet.

In case the ground is not level, the spirit-level will assist you.

This mode of measuring trees is an adaptation of our own, to the purpose, of a very simple problem of trigonometry.

VISIT OF DR. HOOKER.

We are pleased to announce from a very reliable source, that Dr. Joseph Dalton Hooker, son of Sir W. J. Hooker, and like his father, eminently distinguished as a Botanist, will certainly visit the United States, next summer.

Catalogues, &c.

Langdon & Cherry, Nashville, Tenn. Circular of General Nursery Stock. Osage Orange in large quantities.

Ellwanger & Barry, Rochester, N. Y. Descriptive Catalogue of Fruits. To say that every one should possess this, and feel it quite a privilege, is not more than this superior Catalogue merits.

The same. Ornamental Trees and Shrubs. Also very full and complete. We notice in it one of the best lists of hardy herbaceous plants we have seen, and of Chinese Pæonys and Phloxes, amongst other good things.

Thomas & Herendeen, Macedon, N. Y. Descriptive Catalogue of Fruit and Ornamental Trees and Shrubs. Worthless varieties evidently discarded. The Catalogue is not extensive, but every thing apparently "of the best."

Edgar Sanders, Lake View, Chicago, Ill. Bedding plants, &c., Verbenas, Dahlias, Fuchsias, &c., that every one will want.

Curtis & Cobb, Boston. Flower seeds and Vegetable seeds, wholesale and retail. Near 800 kinds of flower seeds are offered.

Negley & Co., Pittsburg. Supplementary List of Dahlias, Bedding plants, &c.

W. P. Lipsley, Cardington, Ohio. Evergreens, &c., from the woods.

H. A. Dreer, Philadelphia. Flower and Vegetable Seeds. A valuable Descriptive List.

D. M. Dewey, Rochester, N. Y. List of colored plates for nurserymen. Also, Circular of new work on Grapes, wine-making, &c., of which also see advertisement.

Horr & Beebes, Dubuque, Iowa. Fruit and Ornamental Trees. Apparently a new firm, with a small, but prettily got up List.

Isaac Pullen, Hightstown, N. J. Fruit and Ornamental Trees. If any one still doubts whether "any good thing can come out of" Jersey, they have only to get this very neat and pretty little Catalogue.

D. P. Dyer & Son, Providence, R. I. Circular of Nursery stock.

Nealley & Bro., Burlington, Iowa. Fruit and Ornamental Trees. A Catalogue of 60 pages, and one of the most complete we have received from the West.

Spangler & Graham, Philadelphia. Catalogue of Farm and Garden Implements, Seeds, Books, &c.

H. A. Mish, Harrisburg, Pa. Sheet Catalogue of Fruit and Ornamentals.

W. Day, Morristown, N. J. Wholesale Price List.

Ellwanger & Barry. Dahlias, Verbenas, &c. A Catalogue of 25 pages.

F. Trowbridge, New Haven, Conn. Fruit and Ornamental Trees, including Cranberries, "Hop tree," Blackberries, &c.

J. Huggins, Woodburn, Ill. Abridged Catalogue of Fruits and Trees. We are glad to receive our friend's list.

H. Collins, Arburn, N. Y. Trade List.

Bridgeman, Broadway, N. Y. Catalogue No. 4, Fruit, Ornamental Trees, &c. One of the handsomest we have received. One of the fullest and best, and requires nothing but a little more care in the proof-reading of the botanical names, to become one of standard reference.

Babcock & Bro., Summerfield, Ill. Catalogue of Ornamental Trees and Shrubs.

J. M. Thorburn & Co. Descriptive Catalogue of Seeds, &c. We need say nothing by way of introduction to the List of this well-known and reliable firm.

Luigi Croff & Co., Milan, Italy. "Pressi Fissi dello stabilimento agario-orticolo," which we shall leave our readers to translate for themselves, assuring them, however, that if they think sunny Italy has no need of gardening, such fine Catalogues as these will undeceive them.

Asher Hance & Son, Red Bank, Monmouth Co., N. J. Wholesale Price List. We notice the English Plane, much sought after just now, amongst their seedlings.

Journal of the New York State Agricultural Society, January, 1859, containing much of interest.

Charles F. Erhard, Ravenswood, Long Island, N.Y. A Circular, giving a description of the Cherry Currant, with full directions for its cultivation and the making of wine. It is quite useful and instructive.

We are indebted to Mr. Commissioner Holt for a copy of the *Patent Office Reports for* 1858, and find it one of the most interesting of the series. We shall refer to it again next month.

Questions and Answers.

Dr. McV., Milwaukie, Wis., and others.—It is impracticable to give so complete a calendar. To give *every thing* that should be done in every branch of gardening, and how to do it, and to adapt these matters to every State and Territory of the Union, could scarcely be done in a volume devoted to the purpose. It is a task which all of our best horticultural writers have shrunk from. Those writers who complain that we have no "Loudon" in America, forget that this country is not a "50 by 100" lot like England is.—The "Hints" are destined to remind the reader of what they might probably forget, and to introduce new modes of thinking or practice not generally recognized. Though we cannot make use of the suggestion, we are none the less obliged for it, as we wish to take every hint calculated to improve our paper.

As far as we can, we shall give the names of the winning fruits and flowers at the Horticultural Exhibitions. Exhibitors should remember that the publication of these reports are not only to do them honor, but also to instruct the public. They should always hand to the secretaries or reporters a list of their contributions.

E. Satterwaite's communication shall appear in our next.

Progress, West Philadelphia, complains that the Schedule of the Pennsylvania Horticultural Society is so arranged as to afford small growers very little chance of successfully competing, and asks us to use our influence to have alterations made. Many of his suggestions are practical, and would, no doubt, have been valued by the Committee, if made in time. But it is now too late for this season, the schedule having been adopted by the Society, and distributed. About October or November would be a better season to introduce the subject.

Many interesting communications have been received, for which the authors will please accept our thanks.

In answer to many inquiries, we may state that it is our intention to republish in our present form, as opportunity offers, the chief articles in our Specimen number.

Raising Evergreens from Seed.—C. C. Wamsley, Ogle Co., Ill.—Our climate is so varied according to latitude, that it is difficult to give such special directions as will apply to every place where our readers extend. But the *principle* can be readily applied when understood. *Dry air is fatal to seedling evergreens*, while *confined air is equally injurious.* The art is to combine a moist atmosphere, with a pure, free air—a deep sandy soil on an open Northern aspect, especially if the soil is such as never gets dry or very wet, will often furnish all that is necessary. A certain way, however, is to sow in a frame, which is raised at the four corners a few inches, so as to admit a current of air under, while the frame, being kept close, will keep in the moisture pretty well. The glass of the sashes should be whitewashed, and if set with its face to the North, so much the better. They may be transplanted when either one or two years old, according to their height, say two or three inches.

J. E. S., Alton Ill.—Buist's Flower Garden Directory will give you much valuable information. We believe there is no work giving exactly what you want.

Amateur, Nashville, Tenn.—Mr. Editor—Can Camellia Japonicas be propagated by cuttings? If so, please give the processes.

[Single red is always so raised, and double ones "worked" or grafted on them. Doubles grow also from cuttings, but not so easily as single ones.

In June or July, when the wood of the past season is about half ripe, is a good time to choose. Make a hot-bed where a bottom heat of about 70° to 80° can be maintained for six or eight weeks; make the cuttings two or three eyes in length, leaving the leaf, half reduced, at the topmost bud; insert these cuttings in shallow boxes of sand, and set in the hot-bed, some days after the rank steam has a little cooled off. Shade from the hot sun for a while. These are the main points of the process, but practice only will render you an expert at it.—Ed.]

New Plants.

Dillenia speciosa.—A very large Indian tree, adapted only to large conservatories. The flowers are large and white, reminding one somewhat of Magnolia conspicua. Nat. or. Dilleniacea.

Salvia candelabrum.—Sir W. Hooker says this is the most beautiful of all the 400 known Mexican species. The corolla is variegated, or marked with purple and white. Nat. or. Lamiaceæ.

Lupinus Menziesii.—A Californian annual, with spikes of bright yellow flowers nearly a foot in length. Nat. or. Fabaceæ.

Eichornia tricolor.—A Brazilian aquatic plant, with very pretty purplish flowers. Those who cultivate stove aquatics, will find this a valuable addition. Nat. or. Pontederaceæ.

Begonia laciniata.—A biennial East Indian species, with very large showy flowers, and particularly beautiful foliage.

Illairea canarinoides.—A climbing annual from Central America, with very large and showy flowers, and will, no doubt, be easily grown in the open air, and become popular. It belongs to the Loasa class, and, like that plant, is clothed with stinging hairs. Nat. or. Loasaceæ.

Cypripedium Fairieanum.—An East Indian species, allied to C. insigne, but with the large greenish flowers striated with purple. Nat. or. Orchidaceæ.

Grevillea alpestris.—From South Australia. It has small, box-like leaves, and very showy scarlet and yellow flowers. Whoever can grow the Proteaceæ, will want this species. Nat. or. Proteaceæ.

Rhododendron Winsorii.—Another Bootan species, resembling in form and appearance R. Thompsonii, before described. The color is brighter, and the plant does not appear so interesting.

Uroskinnera spectabilis.—This is described as being a very showy plant. The plate represents it as of a dull purple color, in heads about four inches across. The leaves look coarse. From Mexico.—Nat. or. Gesneraceæ.

Epigynium acuminatum.—A kind of vaccinium, with long evergreen leaves of the shape and size of a Forsythia. The flowers and flower-stalks are of a brilliant crimson, and as it will probably be found hardy in the Southern States, will be in much request. It is from Bootan. Nat. or. Fricaceæ.

Communications.

FRANKLIN GRAPE.

BY J. B. GARBER.

Mr. Editor:

The present excitement for "new hardy Grapes" seems to auger favorably that, before many years, we shall be cultivating Grapes that will vie with the best of other countries, either for the table or for wine. Already some nurserymen number them by the hundred, and all *said* to be hardy and of estimable qualities.

When Horticultural novelties are the question, I generally get "involved;" so you may well suppose that the epidemic, or Grape fever, has also given me a slight "shake!" To relieve myself of this "malady," over fifty of the "new Grapes" are already in my "patch," and many more promised.

Should you desire a few notes occasionally for your interesting *Monthly*, it will be a pleasure to make public my "impressions" of the new Grapes as they come into bearing, for the benefit of your readers, or such of them, at least, as may not yet have them in bearing. As my *motives* in giving publicity to my "doings in Grapedom" might, however, be misconstrued, I will at once say, that I have no plants to sell, and never intend to; but that I merely collect them for my own pleasure, and to distribute free to all, so far as I may have any cuttings to spare.

Should this season prove favorable, I shall be looking with "longing eyes" to see the fruit of several "new ones," as also a number of seedlings, having many seedlings from various sources, and varieties coming on.

The Delaware, of Ohio, has been in bearing with me for several years, and should it continue, as heretofore, to be proof against mildew, (the only serious enemy to the grape,) it will be some time before a grape of superior *quality* will be found. In *size* there is room for improvement. It is, however, a foreign grape, and that alone makes me fear that, like all others of foreign origin yet tried, it may, as it becomes older and the plants weaker, be affected with this enemy to foreign grapes and gooseberries.

The Delaware makes a most delicious and beautiful wine, of an amber color, and will not be "hard to take." I had, however, intended merely to notice the grape at the head of this article, and have already nearly filled my sheet.

The "Franklin" is a wild grape of the Alleghany Mountains. It was found growing in wild luxuriance on an island, or a bend, in what is now called French Creek, a feeder, if I mistake not, of Conneaut Lake, in Crawford County, Pennsylvania, and from the fact of a French colony being settled there (whence the name of French Creek) prior to the Revolutionary War, it has been suggested that this colony may have cultivated the vines of France, and that during heavy freshets, plants or seeds may have been lodged on the spot where this was found, and become fully acclimated. This supposition, however, is erroneous, as it is a true and full-blooded *native*, and may be a crop originating from seed of the wild varieties. The whole plant—wood, manner of growth, leaves, fruit, size of bunches and berries—in appearance very much resembles Clinton, only the wood is not so dark-colored, and the fruit is *sweet.* Some twenty odd varieties that fruited with me last season—among them Catawba, Isabella, Concord, Early Amber, Diana, Blood's Black, Alexander, York Madeira, Ohio Delaware, Delaware Burgundy, Cloanthe, Le Noir, Wright's Isabella, &c.—the "Franklin" was the *earliest ripe.* No one, I suppose, will deny that birds are good judges of fruit; and although my plant had not less than half a bushel of fruit, yet these depredators would have taken every berry, had I not taken the precaution of putting a few bunches in paper bags.

As a parent to originate new varieties, it will probably prove itself superior to most other grapes. As the gentleman who first had it in cultivation assures me, that of the first lot of seedlings, a few have already fruited, and are a great advance on the parent.

I believe it is generally admitted that to raise new varieties of fruit, there is a greater prospect of success by commencing with some wild or natural fruit, than to trust to seed of such fruits as are already at the head of the lists.

If I mistake not, such was the theory and practice of Van Mons with the Pear, and from which so great results were obtained. If the first remove from the wild type of this "Franklin Grape" has already produced improvements so great, what may we not hope and look for from the third and fourth generation! The Concord, I think, is the third remove or generation from the wild. I consider the Franklin Grape a valuable acquisition to our stock of native grapes. It is now in the hands of a few propagators, and will soon be offered for sale. Among my lot of over twenty that have fruited, the Franklin, next to the Delaware, I consider one of my "best" grapes; and were it only "big" enough, would be a No. 1 for "market purposes." As it is, it will soon take its proper place with amateurs for table and wine, and to originate new ones from seed.

Yours respectfully, J. B. Garber.

February 1, 1859.

[Mr. Garber is a zealous cultivator of the Grape, having over 80 varieties under culture. We hope we shall often hear from him. We are surprised to find him so decided about the Delaware being a foreign grape. The characters which distinguish a foreign from a native grape are so constant, that there need not be two opinions on any such question. The leaves of the *Vitis vinifera* have the serratures at the edges very deeply cut, gashed, and pointed, as the Clara, for instance, is very correctly represented in the last Horticulturist. The surface, also, of the foreign grape is as flat as if it had but just come out of the herbarium of a botanist. The native grapes, on the contrary, have the serratures broad, and *not* deeply cut in, and the leaves are wrinkled. Let any one compare a B. Hamburg with Isabella, he would soon learn to decide.—Ed.]

DR. UHLER'S WAY OF MAKING HOTBEDS.

BY JOHN HAMILTON, GARDENER TO D. R. KING.

Dear Sir:—Having read Dr. Uhler's account in your Specimen Number, of a new way of reviving the heat in hotbeds, by saturating them with a weak solution of glue or any liquid containing gluten, I concluded to test the matter myself this spring. In the latter part of October I filled a range of hotbeds, of about ten lights, with manure, mixed with about one-fourth leaves, and planted them with Lettuce, Radishes, Dandelion, and Endive. By the first of January the heat in the bed had entirely declined, and most of the crop consumed. Wishing to use the same bed for early vegetable plants, such as Tomatoes, &c., I concluded to try Dr. Uhler's plan on part of the same beds, and partitioned off two lights, and, throwing back the top soil, gave the bed a good watering with about two barrels of "swill" or "slop" from an alcohol distillery in the vicinity. We pay six cents a barrel for it, and haul it about a quarter of a mile. Before putting the "swill" on, I made a hole down two feet in the bed, put a thermometer in it, and covered it closely, and, on examination, found the temperature 44°. The "swill" was applied on the 10th of February at noon, and on the evening of the 12th the temperature had risen to 70°, on the evening of the 13th to 76°, and on the evening of the 14th (yesterday) to 80°. This is the last observation made; but as you wished to have the result, as far as ascertained, for this month's paper, I send it to you. I also yesterday tested the temperature of the remaining lights of the bed, (not saturated with the swill,) and found, by placing the thermometer in a closely-covered hole, that it was still 44°. The heat of the bed is evidently still increasing. Next month I will send you further observations. Yours, in haste, J. H.

Roxborough, Feb. 15, 1859.

GARDENING IN ALABAMA.

BY C. S. D.

Mount Vernon, near Mobile, Alabama.

In the January number of the *Gardener's Monthly* you say your paper is to know "no North, no South," and perceiving by a careful perusal of its columns, that the idea is well carried out, and that matter of interest from Canada even to Texas abounds therein, I have concluded that a few notes on our seasons and garden products, and the way we raise them, would perhaps be considered of sufficient interest to you for publication. If it prove so, I shall be glad to be so far useful to your enterprise.

And first about potatoes. You may think our mode an old fogyish concern, but it answers admirably. We plant them in beds,—"lazy beds," we call them, as also they are called in that empire of potatoes—Ireland. We prepare these by marking out strips of land four feet wide, then digging it up. On this we place the sets, and cover about two feet deep. Do not be alarmed at the depth. We cover with leaves or straw only. If you think we cannot get potatoes this way, why "come and see," We plant about the first of January, and continue till the first of April. We also plant in August, and by mulching them with leaves, keep them bearing all winter.

We not only use the roots, but consider the tops an excellent vegetable. Boiled and eaten like spinage, they are frequently used.

Cabbages for fall use we sow about the 1st of June, and set out soon after. We have a kind of cabbage called "Collards." It grows something like a Cauliflower. The leaves make excellent greens, and it produces a succession of small heads, which are highly esteemed. Cabbages for early use we sow from the 1st of April to the 1st of May; as, also, Cauliflower and Broccoli.

Carrots, Beets and Parsnips, for spring use, we plant about the 1st of September. These stand through the winter, and are fit for use in April and for the full crop we usually plant about the 1st of March, and continue to sow every few weeks.—Those sown in March are ready for use in June.

Peas we usually sow about the 1st of January, and gather about the 1st of May. Bush or String Beans we plant the 1st of April, and continue every two weeks till June 1. After that it is too hot and dry to bring them to perfection. We have a kind that grows in a bush about four feet high, without any support. The bean is white, about the size of a Lima, but round. It is more mealy, and much preferred to the Lima Bean.

Pole Beans we plant about the 1st of April. Also Tomatoes, Egg-plants and Peppers. The Egg-plant, with a slight protection, lives through the winter, and bears the next season. Radishes we have to sow every two weeks, commencing about March 1st.

Cucumbers, Melons, and plants of that tribe, we sow about the 1st of April. Celery troubles us to raise, and, in consequence, is not much valued for any purposes but flavoring soup,. We sow in a frame, and about the 15th of February set it out in a well-shaded place. In August it is set out where it is to stay and grow all the winter.

Turnips we sow about the 1st of March, and again the end of August. Lettuces we sow in the fall, and set the plants out about the 1st of April. About this time we sow another crop, but it does not always do well.

The Endive is the best kind of Salad, and does very well. We blanch it by throwing straw mats over, instead of covering with boards or tile, as they do farther North. They do not rot this way, as they are liable to by other plans.

Okra we value, and have four kinds. We sow about the first of April. Onion sets we plant in October and November. The seed we sow about the 1st of April.

And now, having given you some account of what we do with your most popular vegetables, I will write of a few you know little about.

The Poke--your common Poke weed—we value more than you do. We dig them up in the fall and

winter, and plant in beds like Asparagus, in rich soil. When they commence to grow, we cover with leaves or sand eighteen inches deep, when it shoots up through. Cut and eat like Asparagus. It is an excellent vegetable.

Then we have the Artichoke, the scales of the large heads of flowers being eaten. This succeeds here very well. The petals in wine make an excellent substitute for rennet.

The Cardoon, a coarse-looking, thistle-like plant, does well, and is esteemed.

The Yam is a favorite. We have many varieties, of which the African, Leather coat, and Bermuda are the best. We plant them in a bed in March, and set the sprouts out in April. They do well, also, by cuttings of the tops laid down in trenches. Sweet Potatoes do very well, also. These, by the way, make a fine *dessert*. Cut them in longs lices, parboil, cover with sugar, and bake brown in an oven.

While in the cooking line, I may as well state that one of our most esteemed dishes is *Okra fritters*.—Take young okras, boil them, and pour them into a cullender to drain; beat them up with a spoon, and put a little salt, cream, yolk of an egg and flour, and make them into fritters, and fry them brown.

Okra salad is made by boiling, and then dressing like endive.

Green corn puree is also an excellent dish with us. Take a grater and grate a quantity of corn. Put into a saucepan with a little new milk, and stew slowly a quarter of an hour. Pass it through a seive, and add salt to suit the taste, and then stew slowly till thick as mush.

I intended to have added a few words on our fruits and ornamental trees, but I fear I am tiring your readers. I will, however, do so another time if you wish.

[Quite the contrary. We will answer for our readers. They will wait anxiously for the promised favor.—Ed.]

Obituary.

Prof. Charles Morren at Liege on the 17th ult., in the 52d year of his age, after a very long and cruel illness. He was the author of a considerable number of curious papers on various points of interest in Vegetable Physiology, but was best known as the Editor of the *Annales de la Societe Royale d' Agriculture et de Botanique de Gand*, a Belgian work of the same class as Paxton's Flower Garden, which terminated in 1849 with its 5th volume.

Mr. Thornton Herapath, son of Mr. William Herapath, the celebrated analytical chemist of Bristol, was accidentally drowned on his voyage to England from South America. He had been for some time engaged as the chief chemical officer of the Mexican and South American Smelting Company, and was on his passage from Herradura, Chili, on a visit home; when in lat· 8 north, 31 west, he fell overboard, and although a buoy was almost immediately thrown to him, and a boat lowered for the purpose of rescuing him, he sunk before he could be reached. Mr. Thornton Herepath was a gentleman of high scientific attainments, and his contribntions to various periodicals in this country, as well as lectures delivered in his native city and elsewhere, won for him a distinguished place among the chemists of England, and obtained him the appointment which he filled in Chili.

M. Neumann, well known as one of the first horticulturists of the day, and connected with the *Jardin des Plantes* at Paris, the *Botanische Zeitung* says, is also amongst those recently deceased.

NOTE.

As we wish to present much variety as possible to our readers, our correspondents will oblige us by condensing their language as much as possible.

Domestic Intelligence.

Medical Effect of Acorn and Chiccory Coffee.—There is in Berlin, Prussia, a large establishment for the manufacture of "coffee" from acorn and chiccory, the article being made separately from each. The chiccory is mixed with an equal weight of turnips to render it sweeter. The acorn coffee, which is made from roasted and ground acorn, is sold in large quantities, and frequently with rather a medical than an economical view, as it is thought to have a wholesome effect upon the blood, particularly of scrofulous persons. Acorn coffee is, however, made and used in many parts of Germany for the sole purpose of adulterating genuine coffee, and has been imported into the United States for the same use, so that, no doubt, many persons who would shrink from knowingly drinking acorn coffee have frequently drank it under another name. If it is medical in its nature, as is said, the use of it ought to be encouraged. And at any rate, as it is healthful and can be made very cheaply, it seems to recommend itself, under certain circumstances, as a substitute for coffee. —*Herkimer Journal.*

The Elder Bush.—It is not known to many persons that the common elder bush of our country is a great safeguard of plants against the devastations of bugs. If any one will notice, it will be found that worms or insects never touch the elder. This fact was the initial-point of experiments of an Englishman in 1694, and he communicated the results of his experiments to a London magazine. Accident exhumed his old work, and a Kentucky correspondent last year communicated to the *Dollar Newspaper* a copy of the practical results as asserted by the English experimenter: that the leaves of the elder, scattered over cabbage, cucumbers, squashes, and other plants subject to the ravages of insects, effectually shields them. The plum and other fruits subject to the ravages of insects, may be saved by placing upon the branches and through the tree bunches of elder leaves.—*Herkimer Journal.*

Raising Apple Seedlings.—At a late meeting of the Illinois Horticultural Society, reported in *Emery's Journal*, Mr Galusha said:

Perhaps I have better success in raising apple seedlings than many others—at least my friends will have it that I do. My method is to select new ground broken in June. This I trench-plow in the fall, in that way pulverizing the soil and destroying the grubs. The fall plowed ground I leave rough; then in the spring, as early as possible harrow down and plow deep throwing the original surface soil once more on top; then, without harrowing, I lay off into drill from eighteen inches to two feet apart, using for that purpose a plow commonly known with us as a "bull tongue." I then drop the seed and cover with fine dirt about an inch and a half deep; this is done with rakes or hoes. There is no necessity for horse cultivation. At the second time of hoeing I thin out plants. I usually hoe four to six times during the season, as the plants to do well must be kept clean. In the fall I dig up my stocks with the plow by throwing a deep furrow from the row. My soil produces long, clean, straight roots. I cut off the tops and pack away in the cellar in sawdust, so placed as to exclude the air. I have had both scions and seedlings packed in this way remain perfectly fresh and sound over summer.

Starting Seeds Early.—The Rev. Daniel Emerson, Summit County, Ohio, writes that he has been successful in giving garden seeds an early start, in the following manner:

Having selected the quantity needed, each sort is tied by itself in a cloth, the name being plainly written on a slip of paper and inclosed with the seed. The packages are then buried about two inches deep in the ground for a week or two. When ready to plant, the kinds needed for planting are taken from the bags and used. They will be found to have swelled, perhaps sprouted, and ready to grow. If the ground should be quite dry, it is best to water the drills after dropping the seed, and then cover with dry earth. Mr. E. says that by this plan he has never failed to raise plants from every seed planted, though when put out they were often sprouted. If each seed is placed where it is wanted to grow, it will save the labor of thinning, though many prefer to thin their rows, leaving the most prominent plants to grow.—*American Agriculturist.*

Raisins.—On a recent visit to the gardens of A. P. Smith, Sacramento, we were shown some fine specimens of home-manufactured raisins from the true Muscat grape. In flavor excellent, and with our admirable summer sun for drying, we are surprised that more extended efforts are not made for their manufacture —*California Culturist.*

Chufus, or Earth Almonds, (*Cyperus esculentus*) —This produces tubers about the size of a chestnut, and resembles them in taste, but are more delicious. They are very productive. We counted the product from one tuber, and the result was four hundred perfect tubers, exclusive of several small ones. This esculent is worthy of cultivation. Plant from the 15th of April to the 1st of June, in drills 2 feet apart and 12 inches asunder, one tuber in a hill—L. N., Ohio.—*Country Gentleman.*

Apples for Western New York.—Seventeen members of the Fruit-growers Society of Western New York, according to request, handed in ballots for the best sorts for an orchard of 1000 trees. Of the 17,000 thus voted for, there were

6800	for the	Baldwin,
3200	"	Rhode Island Greening,
1600	"	Roxbury Russet,
1325	"	Tompkins Co. King,
850	"	Northern Spy,
850	"	Twenty Ounce,
475	"	Tallman Sweeting,
300	"	Fall Pippin,
300	"	Esopus Spitzenburgh,
150	"	Lowell,
100	"	Golden Russet,
100	"	Red Astrachan,
100	"	Lady Apple,
100	"	Wagener,
100	"	Sweet Bough,
50	"	Duchess of Oldenburgh,
50	"	Swaar,
50	"	Cooper's Market (local),
50	"	Keswick Codlin,
25	"	Peck's Pleasant,
25	"	William's Favorite.

[*Country Gentleman.*

VINTAGE IN HERMANN, MO.

We translate from the St. Louis *Westliche Post* a letter from Mr. J. Husmann, under date of November 24:—

"The crop, as a general thing, was poor, and will hardly exceed 15,000 gallons. Still there was more than the unfavorable weather seemed to promise.

"Norton's Virginia Seedling and Lenoir yielded another good crop, and we thus learn more and more how much they are to be preferred to Catawba. The quality of this year's wine will be excellent, the 'must' having more saccharine matter than ever before.

"Concord yielded this year, for the first time with me, and seems very suitable for our climate; fruits admirably, large bunch and berry, ripens a fortnight sooner than Catawba, good flavor, and the only kind in our vineyard which was not touched at all by rot and mildew. In a few years I think I shall sell a good many Concord grapes in the St. Louis market, and am pretty sure they will fetch twice the price of Catawba.

"The wild grape which I cultivate, once more yielded one gallon the vine, and the vine is already clear and very good. Promises exceedingly well for wine, but is not fit for table on account of being too acid.

"We have now under cultivation twenty-five kinds, amongst them a good many kinds so famous in the East, such as Delaware, Rebecca, Clara, Emily, Raabe, Graham, Brinckle, Canadian Chief, Diana, &c. I shall report later how we succeed. What we are looking for is a grape with a fine large bunch and berry, of vigorous growth, good for table and for wine, and not subject to rot and mildew. And shall we not find one combining all these qualities amongst the many now on trial? So much of the prosperity of Hermann depends upon it."

Agassiz's Collections of Natural History. —From a report on Harvard University in the Boston *Courier*, we clip the following:

"The old observatory in the Botanic Garden has been replaced by a new one, costing $3885, of which $2000 was contributed by the executors of the late Thomas Dowse. A summer term of lectures has been added in the Medical School. Messrs William Sturgis, John P. Cushing, Thomas Lee and Jonathan Phillips have each given $5000 in aid of this department of the University.

"Professor Agassiz's report states a plan which he cherishes for erecting a museum of natural history, which shall equal in extent and value the British Museum or the Jardin des Plantes. He hopes the conditions necessary for advancing the scientific knowledge of this country in that respect will be afforded him. The collection now in his possession is the most valuable in this country, and in some respects the most valuable in the world. A fit structure should be erected in which to dispose the collection; and it should be begun with a view to indefinite enlargement. At present it is suggested that six or eight rooms, like those now in use, would answer very well for a beginning. Heretofore a large amount of assistance has been required to take care of the collection, and the expense of this has heretofore been discharged entirely by him. He recommends the appointment of Curators, who shall have charge of the collections, to be paid by private contributions. It is thought honorary Professorships could be made available. An earnest wish for carrying out these recommendations is expressed.

"Hon. Emory Washburn spoke warmly in favor of action upon the report just read, and offered a resolution that a Committee be appointed to petition the Legislature for an appropriation for a building for the use and care of a Museum of Natural History. Agreed to.

"The report was then accepted and ordered to be printed."

Newspaper Improvements.—We are pleased to notice that hereafter the *Missouri Democrat* is to have a Horticultural and Agricultural column.

Fuchsia serratifolia.—The following excellent article is from *Emery's Journal*.

We may visit a great many greenhouses, but very seldom meet with a good specimen of this plant, which should at this month, and during winter, be in its glory. Among all its tribe there are none better adapted for winter flowering, clothed as it should be, with its fine green serrated foliage. The flowers are of an immense size, sepals of a pale green, corolla an orange scarlet. They are so distinct in color that I think there are none more beautiful. This variety needs no knifeing, unless to keep down suckers, which it is free to make. The time is fast approaching when the Fuchsias that have been in a dormant state for some months past will require attention. If you want them for early flowering, the sooner you bring them from beneath the stage or any out of the way place to an exalted position the better. Let them remain in the same pots you flowered them in last summer, water them sparingly, until you see how low down they will break buds. Use your knife freely, and head them down to the shape you desire. Shake them out of the pots, and put them in as small pots as possible, without cramping the roots. As they grow, shift them into larger pots, and continue doing so until you wish them to flower; they can be brought into any shape you design them, either pyramids, round or standard. By this method you will be in possession of stocky plants, and not all tall spindling plants as we generally see them; it is not the natural habit of the Fuchsia. The old F. coccinea that is planted in Europe for ornamental hedges, and which is quite hardy there, is a sight worth seeing. Nothing can be more graceful than a hedge of it, with its foliage and flowers bending to the ground. I would not recommend such hedges for our climate; they would be killed, root and branch; nor would I recommend keeping Fuchsias outside all winter; if the top is killed there is no certainty of their coming up from the root. Richard Kees,

Gardener to Lewis Ellsworth & Co.

Thuja aurea.—This popular kind is a variety of the Chinese, and originated in the nursery of Waterer and Godfrey.

The Hampton Court Gardens, are now held by Jackson & Sons, the well-known Surry nurserymen. "The Great Vine" is still there in good health.

Hungarian Grass, the *Valley Farmer*, says, is "*Panicum Jermanicum.*"

Gas Tar, painted about the collar of tree, a correspondent of the *American Farmer*, finds a preventive for the Peach borer.

The Cold Snap in Canada.—The records of the weather at Montreal, show that the four days from January 9th to 12th, together, form the coldest period for twenty-nine years. On the 11th, the mercury marked 33 degrees below zero. At St. Martin's, near Montreal, on the 10th, the spirit thermometer marked 43 degrees below zero.—*Phila. Ledger.*

The Compass Plant, Silphium Laciniatum.—Thus the change goes on until where once we saw delicate flowers, now grows the stately sun-flower, and its imitator, the "rosin weed" or "compass plant" flower. The leaves of this plant, which grows from two to six feet in height, almost invariably point to the North, thus directing the *voyageur* on his way through this ocean of prairie. At the present time the prairie in some places are yellow with the above flowers.—*Ledger.*]

Chinese Yam.—The best mode of cooking, says, the *Homestead*, is *parboiled and baked*—the texture of the flesh becomes uniform, of a pearly and almost snowy whiteness; it is not watery, but soft and very delicate both in appearance and flavor.

Language of Flowers.—The unmarried girls in Tahiti, have a custom of conversing with flowers, not unlike the Orientals. If a coolness has sprung up between the pair, the female will separate a flower partially down the centre. One half of the split flower is intended to represent the man, and the other the woman; and it is meant typically to imply that, though separate bodies, they are joined together at the heart. If the lover keeps the flower, it is a sign that he wishes to preserve her favor, but if he tears it asunder, it is a token that he has lost his regard for her.

A Good Joke.—An enterprising Scotch nurseryman, has just *heard* of the New Rochelle Blackberry, and very cautiously offers it in the "*Gardener's Chronicle*;" —"American Blackberry.—The Subscribers have received from New Rochelle, a few plants of a "blackberry (bramble), which their correspondent assures them "is by far the best of the many varieties cultivated in New York State," adding that "he has known 400 dollars' worth of the fruit taken from one acre of ground." Any one wishing to try whether this Blackberry will succeed in this country, may have a plant or plants, at 5s. each, on application to Edward Sang & Sons, Kirkcaldy, N. B."

To make Sweet Potatoes of Irish Potatoes —Steam them well and wring them in a towel to make them mealy; mash till there are no lumps left, and sweeten with common brown sugar, to the taste. They are now ready to be baked, fried, or made into puddings.—*Oregon Farmer.*

To make Apple Jelly.—Peel and core the apples—Spitzenbergs are best—put them in a brass or porcelain kettle, with water sufficient to stew them without burning. When soft, press out the juice through a woollen cloth. To one quart of juice add one lemon, and boil ten minutes; then put in one quart of sugar—let it boil until it is thick enough—(you can tell by cooling a little)—then strain through the woollen cloth again, and it is done.—*Country Gentleman.*

Drying Pumpkins.—Peel and cut as for stewing —then slice very thin—(it can be done with a cabbage-slicer)—then spread on tins or other driers, and put in the stove oven with a moderate heat. It will retain its natural flavor better than any way I ever tried. In preparing it for pies, soak it in water a few hours, and stew in the same manner.—*Country Gentleman.*

Foreign Intelligence.

MERITS OF AN ORCHARD-HOUSE.

Having gathered almost all the fruit in my orchard house, I can say nothing of the kind ever gave me so much satisfaction. From early spring, when the house was a mass of bloom, and when in a beautiful climate (without the heat and damp of a hothouse, with plenty of fresh air, but no cold, cutting winds), I enjoyed marking the minute differences of leaf and bloom till the ripe fruit hung in all its beautiful variety. It has been one continued pleasure. Not one of the numerous persons who have tasted my Peaches, Nectarines, and Apricots, but allowed that they never tasted such fruits from walls,—such bags of juice such tender flesh, such vinous flavour.—Though very beautiful, and covered with fruit, I cannot think Plums are improved by the orchard-house. They were hardly so good as those from walls; and the Pears were decidedly worse, and, except in a bad climate, or to prove a new variety, I should think it a pity to take up an orchard-house with them, the space might be so much better occupied with Apricots, Peaches, and Nectarines. A large number of Straw berries, in pots, may be grown, of delicious flavor, with very little trouble, as they stand amongst the fruit trees can be removed when the fruit has been gathered. My object being to fruit as many good varieties, as possible, we potted some of every sort we grow, and the result was, that, from the ripening of early Nutmeg Peach to the present time when the varieties of Late Admirable are hardly ripe, we have had a constant succession of fruit. Many of the trees though only dotted as maiden trees, quite cut down at the time, in the Spring of 1857, have this year ripened from twenty-five to forty fine fruits each.

Can any one compare a collection of small trees growing naturally in pots, their branches loaded with fine fruit, coming into use for three months, with a house in which six or eight Peach trees, trained under the glass, take up all the room? In the first case, you have beauty, variety and length of time, during which you have the pleasure of having, at all times, a few Peaches for a friend; in the latter, you have a great many of one kind, all ripe at once; and, if you grow fruit, and possess a garden, merely for ostentation, then you can send them to market.

Whether we consider the orchard-house as a producer of fruit of fine quality, or, when built near the house, as an agreeable place to walk in during March winds, or wet weather, or for a place of exercise for the delicate in health, or where you may enjoy a ci-

gar, without annoying others, it is equally enjoyable, at least so say my friends, who have many of them helped me to pass judgment on the new varieties, and think they will have to do so for some years before I ought to depend on my own opinion.—*J. R. Pearson, Chilwell.*

[The above, from the *Cottage Gardener*, accords with our own experience here. We never could get plums to have a good flavor under glass. Has any one been more successful.—Ed.]

Paint to endure.—Mr. Rivers says, that boiling coal tar with slacked lime, will make a shining surface on woodwork, and walls of any clay, or turf, which is as imperishable as stone: it is, therefore, better than all the paints in the world, for the outside work of these houses; and I have proved that rough surfaces may be made in this way, as durable and hard as cast iron, by using the dust from a smith's forge, over the tar, as soon as it is brushed on. I had six wooden spouts, each 18 feet long, 4 inches wide, and 6 inches deep, for a particular purpose, and the man who supplied them (God forgive him!) assured me that they would last three lifetimes, if they were kept painted. But they soon turned so leaky, that a painter, with nothing else to do, could not make them hold their parching jaws, for an hour together, in hot weather; so I took the painting of them into my own hands, and gave them three good thick coats of hot tar, and as much of the forge dust, everytime, as the tar could suck in. From that day to this, these spouts have been as sound as a bell; and when I use tar for paint, I dust it immediately with that smithy dust, and brush off what is not fixed after the tar is quite dry.—[*Cottage Gardener.*

English Fruit.—The *Gardeners Chronicle*, says, of the Pomological November meeting:—"Such," says the reporter, "was the quantity of fruit exhibited on this occasion, that it was found impossible to examine the whole of it minutely. Notwithstanding that the reporters applied themselves most assidiously to the work for two whole days, no time was left to enter upon the examination of the characters and relative merits of the Apples, and consequently, they were obliged to be passed over.

Cox's Orange Pippin Apple, is creating some enthusiasm in England. It is believed it will supersede their Ribston Pippin, which is their standard apple. We notice by our French, and German exchanges, that it is also exciting attention on the continent.

[Translated from the Bot. Wochenschrift.]

TWO REMARKABLE TREES.

On the farm of M. Neuhaus in Kenescheidt, in Germany, are a linden-tree and an oak, hale and vigorous, although their age is estimated at more than one thousand years. They stand before the house. The oak is 21 feet in circumference, and is hollow. In this hollow nature has formed a sort of pulpit 4 feet high, all covered with bark. And, as if this old tree still thinks of getting himself a successor, there has grown an ash tree from one of its dead branches. Birds probably have carried the seed, and the ash grows lustily at the expense of its foster parent.

The linden tree is 27 feet in circumference, also hollow, and consists of several columns, (shafts, trunks,) each covered with bark. Still, as soon as spring comes round, above the hollow the old tree gets green, though less vigorously so than its neighbor the oak.

[Translated from the Deutches Magazin.]

GRAFTING EVERGREENS AND SHRUBS ON DECIDUOUS STOCKS.

An old experienced gardener communicates the following interesting instances of grafting, which have proved successful with him, and invites nurserymen to try the same experiments and relate their success.

Photina serrulata, or *glabra*,—often called *Cratægus glabra*,—and its variety, *P. serrulata dentata*, grow well on the common Quince, *Cydonia vulgaris*. Inoculation is preferable to split-grafting. Do not choose your stocks too strong, or after the first year the graft may come off. I thus raised in my nursery specimens which in the second year had nice heads with shoots from 2 to 2½ feet long. I add that this kind does not graft on Whitethorn as well as the other kinds of *Cratægus* do.

Eriobotrya Japonica (*Mespilus Jap.*), grafted by side or cleft-grafting, also grows better on Quince than on Whitethorn.

Cotoneaster buxifolius, grafted on Whitethorn, makes a fine, spreading head. The branches somewhat pendulous and woolley, shining green leaves, and the fruit fine and of a coral red. *Cotoneaster microphylla*, however, has a pyramidal growth, and numerous fiery-colored fruit, looking very well amidst the dark green foliage. Both species can be raised also on their own roots. *Ruscifolius* is finely adapted for hillsides in gardens and parks; *Microphylla* for massing or in pots.

Prunus laurocerasus, or *Cherry laurel*, I have propagated by layers for many years, and lately by grafts on *Cerasus avium* and *padus* (*Prunus padus*). When grafted, and when in average soil, it will stand the cold much better.

All Mahonias graft well on *Berberis vulgaris*, or on any strong *Berberis*, such as the *Nepalense*, *aristata*, &c. Different Mahonias can be grafted, also, at a certain height on the same plant.

Mespiulus pyracantha—both the red and the yellow white fruited graft equally well on Quince and Whitethorn.

Cerasus Caroliniana grafts well and lasts longer when grafted on *Prunus padus*.

Cerasus illicifolius does the same on *Prunus Mahaleb*. Both cherries can be grafted like roses in the greenhouse on account of their fine thin bark.

I never tried grafting *Euonymus Japonicus*, *Rhamnus alaternus*, *Viburnum sinensis*, *Ligustrum Japonicum*, and *Nepalense*, because they propagate easily by layers, cuttings and seed.

All the above-mentioned plants graft best and easiest by clefts into the bark in the same way as you go about grafting into the bark of old and badly-grown pyramidal fruit trees which you want to improve and are too old for inoculation.

Will any body tell his experience in regard to grafting deciduous trees and shrubs on evergreen stocks?

[Translated from La Revue Horticole.]

THE ALOE A CURE FOR SCALDS AND BURNS.

M. L'Abbe Moigno recommends that the Aloe of any variety, but particularly the Soccotrina, should be cultivated as a specific against the effects of burns and scalds. Mr. Berthoud states to the *Patrie*, that M. Simon, gardener at Belleville, having scalded his foot very severely, took a leaf from an aloe, split it down the middle, and applied the inside on the wound. To his great surprise, the green juice of the leaf turned purple, and the pain disappeared as if by enchantment. M. Lemaire, the Professor of Botany at Gand, obtained the same result in a similar case; and M. Houillet, Director of the Hothouses of the Museum, met with equal success in the case of a workman who had been dreadfully scalded with steam.

J. A. Barral.

[Translated from the Illustrirte Garten Zeitung.]

HOW TO PROPAGATE LINUM GRANDIFLORUM RUBRUM.

The beginning of March put the seed into a tumbler half full of water; put the tumbler on the flue for 48 hours; temperature in the glass from 20° to 30° Reaunur. Then clean the seed with fine white sand, so that the slimy parts disappear, without hurting, however, the now softened grain. Apply fresh dry sand till the seed is clean. Sow in a pot 1 part loam, 1 manure, 1 pure white river-sand, and cover 2 lines deep. Put the pot again on the flue, and water with tempered water whenever necessary.—When one inch up, pot into 1½-inch pots; when five inches, in 3-inch pots. A fortnight after, let them go to the cold house; give them fresh air; take them out the middle of May, and they will stand well in the open.

[From L' Horticulteur Praticien.]

POINCIANA GILLIESII.

I will endeavor to lay before your readers my manner of cultivating this interesting plant, which, I regret to say, is not as common or as well known as it deserves to be. It is true that in our latitude it is not sufficiently hardy to stand our winters without protection, but by the following treatment it has afforded me the greatest satisfaction for several years past.

Having often admired it in its native country, (Rio de la Plata,) I brought home with me some seeds that I planted in the spring of 1850 in a hotbed, and, when up, picked them out singly in pots, and I had the pleasure of seeing my plants growing rapidly and developing their beauty. At the approach of winter, —about the 1st of November,—I put the plants in a dry place,—sheltered from the frost, where they remained without any other care until the following spring. Towards the end of April, I brought them out and placed them in a sheltered spot, well exposed to the sun. In the autumn of the second year I planted them in boxes of 33 centimetres (about 13 inches) square. The third year the first flowers appeared, and their beauty, added to its graceful foliage, produced a most agreeable effect. My plants have now attained the height of four feet with a well rounded head, produced by pruning every spring about one-third of the previous year's growth, which also produces an abundant bloom. On a single plant I have counted 30 clusters of flowers. It should be grown in an open soil, enriched with well-rotted manure, and should be watered every evening and occasionally with manure-water. It has ripened its seeds perfectly last year. Ferdinand Gloede.

[We have translated this for our readers in order to call their attention to what we believe one of the handsomest small trees ever introduced. It has been in our principal nurseries for some time, but is yet little known. The habit of the tree, and indeed the shape of the beautiful flowers, resemble the *Acacia julibrissum*, and we have little doubt that where that is hardy, this will stand also.—Ed.]

Cedrus Deodara.—The seed of C. D. germinates much better when pealed. Pot in turfy, moist soil, and do not water before they are up.

How to Freshen Old Exotic Seed.—Glycerine has been found to well preserve seed enveloped in it, because it protects it against the influence of air and dampness. Lately it has been found also to give new vitality to exotic seed which looked shrivelled and completely dried up. We do not know why it can act so miracuously, but we state the fact on credible authority. Perhaps some one of our readers has more to say on the subject.—*Deutsches Magazin.*

The largest flower known is Rafflesia Arnoldi, a parasite, found on the Island of Java. The flower measures two feet across. The seed are so small as to be discernible only through the microscope.

How to have Fresh Apples in June.—Gather your apples as late as possible; put them immediately into well-washed and perfectly dry river-sand; cover well every layer, and you will have apples in perfection till the month of June following.

Foreign Correspondence.

Chester, England, February 1, 1859.

I thought it would interest you to have some account of a new feature that has lately been added to the gardening decoration of this county in winter flower gardening. The system of grouping bedding plants has entirely superceded the old method of mixed beds, so long a source of annoyance to the progressive and skilful gardener; although the true lover of plants, and botanical students, have great cause of alarm that many of our interesting herbaceous and Alpine plants have already disappeared before the grouping mania, and speedily threaten to become entirely annihilated. One formidable obstacle has hitherto presented itself, namely, the naked appearance of the beds in winter, and, as it generally is the case, the flower-garden adjoins to some part of the mansion; a more dreary appearance cannot well be imagined, than a flower-garden in the autumn, after a first frost, transformed from a blaze of beauty to groups of empty beds. Bulbs have been resorted to as a means of filling up the bed. These only enliven the appearance at the approach of spring, when every thing around it is casting off its wintry hue. The continual expense of replanting every season is likewise found to be no small item, as many bulbs seldom do well planted a second season in this climate. Landscape gardeners now propose to obviate this difficulty by forming the flower-garden in such a situation that it would be entirely hid from the view of the windows. But this does away with much of the charms of a flower-garden. To obviate this, the method of grouping evergreens in the winter season, in the place of flowering plants, is a happy hit, and when proper taste and ability is displayed in arranging the plants according to the proper lights and shades of color, equal interest will be found in the winter garden as that of summer decoration. I am sanguine to believe, if this system is not already practised with you, it will be found of even greater value to the garden adornment of the colder soil and climate in the vicinity of Philadelphia. I have appended a list of hardy evergreen and other plants well adapted for grouping, with a few feeble examples of arrangement. At the end of the list is a short description of some of the plants included in the list, that are either new or of some particular merit.

[We regret extremely that we have had to omit the remainder of our correspondent's interesting remarks on this subject, through its inappropriateness to our climate. It will astonish our friends in England to learn that an evergreen that would "laugh" at 30° of frost in England, is killed by 10° or 15° here. "Portugal Laurels," "Bays," "Laurestinus," "Arbutus," and "Myrtles," indeed! Barbarians in horticulture as we are supposed to be, we have felt long, long ago that

"If *we* could have them by our side,
How happy we should be." Ed.]

MESSRS. HUGH LOW & CO.'S CLAPTON NURSERY, LONDON.

[One of our foreign correspondents has visited this well-known nursery, and kindly furnished us with copious notes, from which we extract the following as being of interest to our readers.—Ed.]

London, February 3, 1859.

This nursery is one of the most extensive in the neighborhood of London, and is well known in most parts of the world.

We visited it recently, and was much interested. Among some new evergreens I noticed "Podocarpus nubigena," &c. This is a new conifer from Waldivia, and bids fair to rival the Auracaria in grandeur, and its style of growth is very similar.

The Australian and New Holland House is some 80 feet long and 16 feet wide, and filled with various kinds of Acacias and New Holland plants.

The packing-shed (for pot plants) the same length of the house just described; and when we say that from 12 to 14 hands are constantly employed (except during midsummer) in packing plants, some idea may be formed of the business done. Opposite this packing-shed is a large square, devoted to hardy herbaceous plants, of which there was an unusually fine collection. Amongst many other fine things, we noticed "Tritoma uvaria," the most beautiful of autumnals; also "Delphinium formosum," the finest of that family.

A span-roof, entirely devoted to "Heaths," is 60 feet long by 20 wide. Another span-roofed house, 90 by 12 feet, was filled with Chorizemas, Helychrysums, Polygallas, &c. We noticed here a fine stock of Eugenia Ugnii, which seems nearly hardy. Near this another new span-roofed house, 134 by 12 feet, has been built, glazed with Hartley's patent sheet-glass in very large squares. This contained a large stock of Epaeris, Pimelias, Jasminum grandiflorum, the pretty red-berried Skimmia japonica, and the handsomest of all the Clematis, C. langiunosa. As a conservatory-climber, this is an invaluable keeping flower the whole year round. It is hardy enough to stand against a wall out of doors without protection. The flowers are bright blue, and very perfect.

Outside I saw quantities of the new kinds of Bhotan Rhododendrons, such as Jenkensii, Campylocarpum, &c., and which promise to be quite hardy, withstood, without injury, two nights of 16° Fahrenheit. I also noticed Cerasus ilicifolia, Citheroylon cyanocarpum—a new evergreen from Waldivia, and two splendid Hollies—Ilex furcata and Cornuta, and also a quantity of fruit trees in pots for orchard houses. In a span-roofed house for Camellias, 125 by 12 feet, I saw boxes and pots containing Auracaria imbricata seed to the amount of several bushels. Some idea may be formed of the demand for this when we say, two years since Messrs. Low received at one time fifty-six bushels of seed, some part of which was sold, and the plants raised from the remainder, which were all disposed of within eighteen months. For the information of those who occasionally receive seeds of Conifers, we may observe that Messrs. Lowe's long experience convinces them of the necessity of keeping all such *dry* until they begin to germinate. If over-humid, the seeds are apt to rot. Raising seedling Conifers is a great feature in this establishment, and the plants are sold, when young, to the trade and private gentlemen, as in this state the cost of carriage is less than if grown to a large size. The quantities of that elegant Cypress which they have raised and sold—C. macrocarpa—is marvellous.

Close to the Camellia House is a lofty span-roofed Show House, 119 feet long, 21 feet wide and 14 feet high, filled with fine specimen plants of Azaleas and other plants well known at the exhibitions for their elegance. A new Brachysema, lately imported from Swan River, Western Australia, and called B. aphyllum, with brilliant scarlet flowers, was in flower in this house. It is very distinct, and is certainly very beautiful.

The Propagating House and "stove" contained variegated and fine-foliaged plants of every shape and form. We subjoin a list of the most striking and distinct varieties.

Aralia reticulata, Bechmeria argentea, A. Brownii, Rhopala Skinnerii, six beautiful Caladiums from the River Amazon, Cyanophyllum magnificum, Begonia Rex, Begonia argentea guttata, B. Miranda, B. Prince Troubetskry, &c. We noticed one Hoya-like looking plant sent home from Borneo by Mr. Hugh Low, Jr. This plant happened to be in bloom. It blooms freely. The flowers are something like a Cyrtoceras, and will be sent out in the spring of next year. We noticed the white variety of Meyenia erecta, fifteen varieties of those beautiful gold and silver plants, the Anæctochilus, including two entirely new varieties from Borneo, and also a number of new and interesting Ferns from the same country, more particularly a very extraordinary Lycopodium.

A Fern House now forms an indispensable portion of every first-rate nursery. This class of plant has been of late gradually growing into favor. Many good works are now written on the Fern tribe, and are beautifully illustrated, which no doubt help very considerably to foster the fancy, we are glad to see developing so extensively. This Fern House is in fine order. We subjoin the names of a few of the most distinct and beautiful:

Gleichenia dicarpa,	Pteris scaberula,
do macrophylla,	Braimea insignis,
do dichotoma,	Asplenium formosum,
do flabellata,	Marattia Thwaitsii,
Todea pellucida,	Davallia oculata,
Drymaria muxefolia,	&c., &c.

The Fern House is divided by a partition-wall, and this is used as a propagation-pit for hard-wooded plants, for which no better plan has as yet been discovered than plunging in tan or bark. This house is 150 by 12 feet. Here I saw the most brilliant and beautiful of all Correas,—C. cardinale. Also a new "Lobelia" from Moreton Bay, Australia. This variety is light blue, and is very pretty. An artist was sketching it for publication. "Rhododendron virgatum," a good and useful plant from Bhotan, flowering very profusely, quite hardy, and very fine for greenhouse decoration. Also a good stock of "Barclaya syringaflora." This plant is an Australian variety, and is said to be a fine thing. Also Genetyllis Hookerii, Tulipifera and Fuchsoides.

In the Orchid House we found a large stock of this noble and costly family, plenty, one would suppose, to supply all the orchid-growers in Europe for years to come. Here we saw Angræcum Eburnea, Cypripidium hirsutissimum, Lœlia Bryssiana, L. purpurata, Aerides, Vandas, Cattleyas, Dendrobium, Phaloenopsis, &c. The house is 140 feet in length and 15 feet wide, span-roofed.

The rare Auracaria Cookii, one of the largest plants in Europe of this Auracaria is in this nursery, being about seven feet high. Also, Cupressus Lawsoniana, said to be the handsomest of all the Cupressus. Also a very rare new Conifer, called Dammara Bidwillii, from New Zealand.

Horticultural Societies.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The Stated Meeting of this Society was held on Tuesday Evening, January 18, 1859.

Robert Buist, Vice-President, in the chair.

A communication was received from the British Consul, enclosing circular of the Horticultural Society of London, England, in regard to their next Pomological Exhibition.

A communication from General Robert Patterson, President of the Society, addressed to the Secretary, was received, as follows:

"I have to request that you will do me the favor to convey to the members of the Society my cordial thanks for the honor they have heretofore and repeatedly conferred upon me by electing me President, and to inform them that advancing years and declining health warn me that it is my duty to the Society and to myself to decline a re-election.

"With great regard, very truly yours,
(Signed,) R. Patterson.

"To Thos. P. James, Esq., Recording Secretary, &c."

On motion, resolved that the declination of the President as candidate for re-election, be accepted.

Mr. Caleb Cope, who had been nominated, declined being a candidate for President.

Mr. D. R. King declined being a candidate for Treasurer.

Mr. R. R. Scott also declined being a candidate for Corresponding Secretary.

Dr. Brinckle, through Mr. James, declined the nomination for Vice-President.

On Mr Cope's motion, the salary of the Recording Secretary was made $200.

Mr. Thomas P. James, in a few remarks, declined a re-election as Recording Secretary.

R. Robinson Scott presented to the Library the last volume of the "Country Gentleman."

On motion of Mr. James, ordered, that the thanks of the Society be tendered to Mr. Scott for the gift, and that the book be placed in the Library.

OBJECTS EXHIBITED.

By John Brooks, gardener to C. F. Abbott—One brace of Cucumbers, and one dish of Asparagus.

By James Daniels, 53 Market Street—Two Plant Cases, 40 inches long by 20 inches wide. This Case might appropriately be denominated a *Plantarium*, and is an improvement upon the Waltonian Propagating Case. It is of larger dimensions, and has three squares of glass on the top, which are set in grooves of wood, and the glass can be drawn downwards and the air admitted at the upper portion of the case. The back, too, is a glass frame on hinges opening downwards, thus enabling the operator to handle the plants more conveniently, and also to remove the tray, which is of galvanized iron. The heating apparatus is a small galvanized iron boiler to contain water, under which the alcohol-lamp is placed for heating the case, and which can be filled, when a lower heat is required, with hot water, and closed, and the lamp dispensed with in that case, and may thus be used at night, which on ordinary occasions would be sufficient for the safety of the plants.

On motion, adjourned.

ANNUAL MEETING—JANUARY 18, 1859.

The Annual Meeting was held after the adjournment of the Stated Meeting.

Caleb Cope, Esq., was called to the Chair, and Henry A. Dreer appointed Secretary.

The Society then proceeded to elect Officers for the ensuing year, when the following persons were chosen:

President—Matthew W. Baldwin.

Vice-Presidents—James Dundas, E. W. Keyser, B. A. Fahnestock, Robert Buist.

Treasurer—Robert Buist.

Corresponding Secretary—William Saunders.

Recording Secretary—Henry Hay.

Professor of Entomology—S. S. Haldeman, A.M.

Professor of Botany—William Darlington, M.D.

Professor of Horticultural Chemistry—James C. Booth.

On motion of Mr. Robert Buist, the following Resolutions were unanimously adopted:

Resolved, That this Society receives with unfeigned regret the announcement of the Recording Secretary, Thomas P. James, that he declines, on account of accumulated and pressing private business, a re-election to said office, which he has held continuously for a period of about twenty years.

Resolved, That the Society entertain for the retiring Secretary the highest sense of his fidelity and efficiency in the arduous duties

imposed upon him during his long official connection therewith and that it hereby tenders him the assurance of its sincere and abiding regard for his future health and prosperity.

Resolved, That a copy of these Resolutions, attested by the Secretary, be presented to Mr. James.

Adjourned.

HORTICULTURAL SOCIETY OF ST. LOUIS.

A call for a meeting, to be held on the 12th of February, is published in the *Valley Farmer*. We shall be glad to hear that the attempt has succeeded.

MASSACHUSETTS HORTICULTURAL SOCIETY.

We have been favored by the kindness of Mr. Eben Wright, Corresponding Secretary of this Society, with their transactions for the past year, and find it a very interesting volume.

The Garden Committee visited Mr. Simpson's grapery on January 4th, and found a fine crop of superior grapes, *well ripened*, started about five months previously. They give full credit to the superior ability of Mr. Burns, Mr. Simpson's gardener.

July 14th—Mr. Bates' estate was visited, and the appearance of the grounds found to be completely changed by artistic improvements, and the general keeping of the grounds highly prized.

July 22—Woodlawn Cemetery contained 100 acres, so arranged as to seem 200. Mr. Cruikshank, the Superintendent, is highly praised for his management of it.

In Mr. Loomis' garden at Chelsea, the Committee noticed that salt soil had no influence in preventing black knot on plum trees.

Mount Auburn Cemetery' in which the Massachusetts Horticultural Society still retains its interest, shows an improvement from year to year under the arrangements of Mr. Mann.

Mr. Bacons, of Roxbury, the Committee notice as famous for the successful culture of the dwarf Pear. Mr. B.'s ground is reclaimed salt marsh, and he makes use of the city sewerage, which passes through it.

Mr. R. W. Ames', near and similar soil to Mr. Bacon's. Here the Committee noticed that many kinds cracked.

Francis Dana, of Roxbury, is noticed as a successful raiser of seedling Pears.

Hon. S. Walker, of Roxbury, the Committee notice a plantation of fifteen thousand Pears, of which not five per cent. have died; but they do not say how long they have been planted.

The Committee on Flowers speak of their Rose Show as one of the successes of the season. Ericas have been particularly fine. Greenhouse Azaleas better than ever before; and in the Pelargonium W. C. Strong and Mr. Ward, gardener to Mr. Whytal, are especially named as superior contributors. Hollyhocks are likely to prove very popular. Bouquets are spoken of as improving in taste and elegance. Mr. Apple is distinguished as the most regular contributor of flowers during the season. Of new or rare plants, *Tritonia aurea*, a bulb, has been exhibited. Also *Cypella plumbea*—a kind of Tigridia, with lead-color petals. Rose Gloire de Digon they consider their best tea Rose. Hardenbergia andamariensis is spoken of as pretty.

The Fruit Committee report the season as having been unfavorable for fruits. Forced fruits have been exhibited in greater abundance than heretofore, and the competitors in this class are increasing. Strawberries were exhibited on March 6th, Grapes April 3rd, Peaches May 8th, and Cherries May 15th. Grapes and Peaches are the favorites. One bunch of Cannon Hall Muscat weighed four pounds, and some of the Peaches weighed ten ounces. Lady Downe's seedling was the only new grape exhibited in this department. It is a round, purple grape, said to keep well on the vines four or five months.

Of Strawberries, Jenny Lind is said to maintain its reputation as one of the best early kinds.

The cultivation of the Cherry has declined somewhat over past years.

Knevet's Giant and Franconia are still popular Raspberries.

Currants have very much improved. La Versaillaise, Caucasian and Fertile d'Angers the Committee praise highly. Some berries of the former measured two inches round, and proved sweeter than the old kinds.

Blackberries,—The Lawton and Dorchester have proved so acceptable, the Committee "don't want any more new kinds."—Twenty-five Lawtons weighed six ounces; twenty-five Dorchester, five and three-quarters. The Dorchester they consider the sweetest.

Plum culture is nearly abandoned, through the black wart.

Of Grapes, the Diana and Delaware are considered—all things considered—as the best. Union Village not well tried, but promises highly. A new seedling hybrid, between Isabella and a European variety, was exhibited by Mr. J. F. Allen. Also a seedling from the Union Village, larger than its parent. "The only merit of the Hartford Prolific is its earliness, and the Delaware is several days ahead of it."

Of Vegetables, the Chinese Yam is spoken of as being there equal to the Potato in value. A deep, sandy subsoil is found best for their cultivation.

Mr. Burr exhibited fifty kinds of Beans.

The Hubbard Squash is also very highly extolled.

The misunderstanding which has existed for some time between the Society and Mount Auburn Cemetery, in regard to the right of the Society in the new addition of ground, we are glad to find, is settled; the Society still retaining its interest of one-fourth on condition of paying one-fourth of the purchase-money.

The report also contains some very valuable essays on various topics, which we hope to again refer to on some future occasion.

CINCINNATI HORTICULTURAL SOCIETY.

DECEMBER 16th.

President Stoms in the Chair. Minutes read and approved.

The Chair announced the discussion of the day—on "Root Grafting"—as the special order, and awarded the floor to Mr. Heaver, who had not completed his remarks at the last adjournment.

Mr. Heaver resumed his remarks by alluding to the importance of the subject of "root grafting" to fruit growers in general, and to nurserymen in particular; and that on the part of nurserymen there was nothing on this subject to conceal. He was prepared to demonstrate that the prejudice entertained by some against root-grafting was not well founded; that the ideas in opposition to this common process are derived from only fanciful theories, and are opposed to well settled facts. Mr. Cary, he said, claims that in every tree there is a particular point, denominated the axis of growth, from which proceeds downwards as to the root, and upwards as to the top. He admitted the existence of such a line but claimed that it was variable; and inasmuch as it had become offensive to designate that doctrine as "Comstockian," he would give it a more classical title, and denominate it as "Pickwickian," and only as such would it be regarded by practical men in reference to the present question of root grafting, which he claimed to be a perfectly proper procedure, and productive of as thrifty growth in orchard trees as any other method.

Mr. Cary replied to Mr. Heaver, saying that the whole motive of philosophising should be a love of scientific truth that our conclusions should not be predicated of any single fact, but should embrace a wide range of facts which should be arranged and contrasted. He claimed that the axis of growth in the development of a tree is an important consideration in propagating trees for an orchard: for, from this point the downward growth is not like the upward growth—the latter is by concentric rings, the downward is not. That the top and roots of a tree are always correlatives in development, and analagous in extent, so as to preserve the equilibrium and unity of the entire tree; that the seedling is the only truly normal tree, and as such is always a unit as to itself, and as such all its development is symmetrical and harmonious. Hence, we may cut the roots and the top, but if this unity is preserved the engrafted tree will also be a unit as to itself. But if we mutilate the root the unity of the tree is destroyed and the growth becomes disproportioned, one sided; and by using sections of roots the future growth is all awry, and the equilibrium of the normal condition of the tree is lost.

Mr. Howarth deprecated the use of the knife in making wounds on the trunk of a tree; stated that he was prepared to prove that root grafting diminished the longevity of the tree, and therefore desired further discussion than the time of to-day would allow.

Mr. Addis stated that he had obtained some grafts on sections of the root, and that he could not secure a good growth with them, while others grafted on the entire stock, in the same ground and under the same cultivation, grew well.

On motion, the further discussion of the question was postponed till the second meeting in January next.

Fruit Committee's report read and adopted.

Peaches—Heath Cling, E. J. Hooper, from P. Phillips, Ky.; preserved by some peculiar process in fine sound condition; very sound and juicy, deficient in the true aromatic flavor.

Apples—By S. W. Haseltine, Green Sweeting; sound and juicy, but deficient in flavor; the Baldwin, fine, sound and handsome. By Dr. Taylor, the Campfield. Pears—By Dr. Petticolas, the vicar Winkfield; from M. P. Phillips, green corn in good roasting ear condition; sweet and sound, preserved by some peculiar process—flavor deficient.

JANUARY 15th.

President Hazeltine in the Chair.

At an appointed meeting of the Council, J. Sayres being President, and B. F. Sanford Secretary, it was moved by Mr. Addis, and adopted, that the Society hold a regular Spring Exhibition, either at our room in Bacon's Building, or in some other Hall, at the time of the Strawberry season.

The Chair having announced the discussion of the day—on "root-grafting"—as the special order of the day, a very animated and interesting debate ensued.

Mr. Sayres, having the floor, exhibited grafts on different portions of roots—some of them being worked on the top, and some on the second sections. No difference could be perceived, or probably ever will. Nature accommodates herself to her wants to a very great degree. The Beech, when young, sends down sap roots; when older, the tree is fed chiefly from the laterals. Those trees which have the best side-roots are the healthiest trees. One of the objects in cutting away the collar is to avoid suckers. The more recent works of Professor Lindly all endorse root-grafting. It is a very old practice. Some of the oldest orchards, both in Europe and America, originating in this way, have the advantage, in point of health, productiveness and longevity, over those which have sprung from seedling, or the working of the whole root—at all events, they are not behind in any respect.

Mr. Stoms stated, that in Europe they graft chiefly on the collar; our nurserymen on divisions of roots.

Mr. Kelly remarked that it is always good practice to cut off the tap-roots.

Mr. Mootier experimented in all these twenty years ago; sowed his apple seed; when stocks were large enough found the crown or collar; cut it off; planted four hundred of these trees; they grew well: were thrifty; never headed over; his trees and their fruit now speak for themselves; his exhibitions of fruit have been eloquent for him; he wants no better proof.

The President Mr. Hazeltine, preferred always the culture itself to all theories and diagrams.

Dr. J. A. Warder considered that this question had been settled long ago, in this country and elsewhere. Those of the most experience preferred these roots to work on. Tens of millions of trees have been grafted, are now being grafted, and will be continue to be grafted, on pieces of roots, but discrimination must be used as to kinds; never work poor or slender growers on them.

Many are perfectly hardy, more so than some seedling stocks.—Root-graft these.

Theoretically—Use only the upper portion, and let the graft near the collar, not "axis of growth," as it has been erroneously called.

Practically and by the million, for the million use sections of the roots of healthy stocks one or two years, and defy the objectors to the system to select the different trees.

The use of the root is, that it has the property of throwing out the fibers readily: these furnish sap to the scion so soon as the union has been formed—then during the summer growth, the scion itself will throw out its own roots, and if it be of a hardy sort we have a perfect individual of the particular variety; whereas, in stock-grafting or budding, we must always be subject to any accidental imperfections in the stock, and we know that seedlings are not all equally hardy, and often less so than some of our established varieties. Then, again, diseased roots can never escape the observation of the grafter, and should be rejected, and usually are; but who can know the condition of the stock in this particular, when budding or grafting above ground on the stem.

Root-grafted apple trees are more vigorous and more uniform than those worked otherwise.

JANUARY 22nd.

President Hazeltine in the Chair.

Minutes of last meeting read and approved.

Mr. F. G. Carey placed before the Society, and read a number of highly valuable and interesting papers, relating to the Society, for publication in the forthcoming pamphlet, and expiated briefly, but very impressively and eloquently, on the incalculable benefits which have ensued from the Society's efforts, and achievements in the past 15 years of its existence; in the present, and on those advantages also which will arise in the future to the community at large, as well as to those persons more particularly and practically engaged in horticultural pursuits—that in the city of Boston (to say nothing of other similar institutions in many parts of the world), its Horticultural Association own, with the cemetery of Mt. Auburn, $100,000 worth of fast, or real property, upon which and with which they are enabled to operate with vast advantages to the public, as the productor, exhibitor and sales of fruits, flowers, shrubs, trees and vegetables—and surely Cincinnati, so rapid in her progress, skill and greatness, must not and cannot but be soon up to the times, in a Horticultural Society, both great, wealthy and more and more influential in all its valuable objects and efforts.

A more general, animated, hopeful and ardently zealous discussion ensued, participated in by many prominently useful members, and devoted admirers and promoters of horticultural improvement, and delights on the same subject; and this forthcoming small volume to comprise a complete history of the Society, from its origin, a list of all its members, a well-arranged catalogue of the library, and other interesting and important documents and treaties was referred back to the Committee for two weeks, for the purpose of of its greater completeness and perfection. When completed and circulated, it will undoubtedly speak forcibly in favor of the Society.

Report of Fruit Committee.

American Pippen or Grindstone, from R. Stanford, Fruit-dealer, Broadway; a well-known variety.

A medium-sized, greenish apple, exhibited by J. N. Laboyteaux, for a name, of good quality, but not known to the Committee.

JANUARY 29.

Vice-President Bickham in the Chair.

Minutes of the last meeting read and approved.

Mr. T. V. Petticolas exhibited some fine specimens of Rawle's Jannet apple.

A very beautiful, well-refined, and excellently-flavored article of Syrup from the Sorghum or African sugar-cane, was exhibited, from E. G. Ricker. Mr. Ricker raised two hundred and fifty gallons to the acre, 40 bushels of seed, weighing 36 pounds per bushel, the cost per gallon being 19½ cents to Mr. Ricker. It is now worth 80 cents per gallon, the price of the best New Orleans syrup, and would probably be preferred by many.

FEBRUARY 5th.

Vice-President General Wade in the Chair.

Minutes of the last meeting read and approved.

Dr. J. A. Warder read a very full, interesting and valuable paper on analysis of the excellent Report of the Pomology of Ohio, of Mr. Klippart, Secretary of the Ohio State Board of Agriculture, published in the Agricultural Society's Report on Agriculture for the year 1858.

On motion of Mr. Buchanan, it was resolved that Dr. Warder's paper be accepted and published, wherever this could be effected.

Moved by W. Stoms, and resolved, that the subject for discussion next meeting—and the order of the day be the proper time and mode of procuring fruit trees.

Grafts of that very fine and large apple, the "Buckingham," which attracted so much attention at the last Fall Exhibition and elsewhere, were distributed, and which were forwarded to the Society, by F. G. Gilmore, Illinois.

Fruit Committee's Report.

APPLES.—Baldwin, from New York, by Hugh Keown, dealer. 5th Street Market; medium size, round, firm—not equal in flavor to those shown by J. E. Mottier, of this neighborhood.

By the same, Pennsylvania, Vandervere, from Missouri, a good cooking Apple.

By Julius Bruce, Point Cr., Virginia—a nice fruit called "Wilson" medium, dark red, flattened globular, tender, white flesh, juicy; of pleasant and agreeable flavor, said to be a good keeper, though now fully ripe.

From H. H. Turpin, Warsaw, Ky., Pryor's Red—very handsome.

By R. Shanford, dealer, Broadway, brought from Northern Tennessee, a firm keeping winter apple, of great promise—a keeper.

Adjourned. J. A. WARDER, Chairman.

J. E. Hooper, Secretary.

FOURTH LEGISLATIVE AGRICULTURAL MEETING.

We find in the "New England Farmer" a highly interesting discussion on "Fruits and the Culture of Fruit Trees," at this meeting. We regret that we have not space for the entire proceedings, but give the following condensed account of the remarks of the Chairman,—the Hon. Marshall P. Wilder,—which will be read with much interest.

The Chairman said it gave him great pleasure to make a few remarks on the subject of discussion, which was one of the most important that could be debated. The cultivation of fruit had made great progress among us within the past fifty years. The crop in this State in 1845 was valued at $700,000. In 1855 its value was $1,300,000. In 1860 it could not be less than two millions of dollars—more than the value of the wheat, oats, rye and barley in the State. Such had been the results of pomological science in Massachusetts, that her exhibitions sustained the highest rank. One gentleman who had had opportunity of judging, said that he saw more choice fruit at one of our exhibitions here than he saw at twenty in Europe, where, as in Germany, the greatest encouragement had been given to pomology by the government. But great as was our credit here, it was eclipsed by that of California and Oregon Territory, correspondence from which regions showed that they were blessed with wonderful natural facilities for the growth of fruits of all kinds. Col. Wilder read a letter from a correspondent at Monroe, Oregon, stating that he had forwarded a box containing an apple forty ounces in weight and twelve others averaging a pound and a half each! Another correspondent from the same region informed him that ten millions of nursery trees had been sold in Willimet Valley; and Col. Wilder added, that at Washington, a few days ago, he saw a pear from that place which weighed four pounds! Grapes, when their value was considered, either as an article of luxury or commerce, had important claims to attention in respect to the best sorts to cultivate, and best modes of cultivating them. The pear crop in this State was valued at $100,000 per annum, and also demanded a full share of attention, with respect to kinds best suited to our soil, and to the most approved manner of cultivation. We had among us many varieties of pears adapted to our climate and soil, and of these varieties the Bartlett, Vicar of Winkfield, and others which he named, were well adapted.

The following were recommended as the *six* best varieties of apples:—The Williams, Early Bough, Gravenstein, Fameuse, Hubbardston, Nonsuch, and the Baldwin; and if *twelve* varieties were desired, the Red Astrachan, Rhode Island Greening, Ladies' Sweet, Porter and Talman Sweet might be added.

For pears the following were recommended:

Best six pears on their own roots—Bartlett, Urbaniste, Vicar of Winkfield, Buffum, Beurre d' Anjou and Lawrence.

For the best twelve, add—Rostiezer, Merriam, Doyenne Boussock, Belle Lucrative, Flemish Beauty and Onondago.

Best six on quince roots—Louise Bonne de Jersey, Urbaniste, Duchess d' Angouleme, Vicar of Winkfield, Beurre d'Anjou and Glout Morceau.

With regard to the conditions of proper cultivation of fruits, no great success could ever attend the labor of producing them unless it was conducted with a care equal or superior to what was spent on any other kind of production. Thorough drainage, Col. Wilder insisted, was an absolute associate of success. He then made a few remarks on the great necessity of keeping the soils of orchards in a rich condition, by manuring, and of planting the various descriptions of trees in the soils best suited to them. As a general principle, he said, trees and plants flourished better on the soil of their origin. He therefore recommended raising seedlings. We had doubtlessly a number of fine fruits already native to the soil, at the head of which stood the Baldwin Apple, of which 50,000 barrels were last fall exported from this city. At a late meeting at Rochester, N. Y., the Baldwin had two marks of merit to one for any other kind, and the others which received the next higher commendations were the Rhode Island Greening, the Russet, and the Tompkins County King. Col. Wilder went on to give the statistics of apple and peach culture in the West and South, showing that it was much more extensive than was generally believed. Of the grape, the time, he said, was within the recollection of some present, when the Catawba and the Isabella were first brought into notice. Hundreds of cultivators were now raising seedlings, and the day would soon come when our markets would vie with those of Italy, Sicily, and other grape-growing countries. Our native wines were attracting attention in Europe, and at a late convention in Belgium, our Catawba was pronounced superior to the best varieties of Rhine wine. Our own Concord grape, also had attained great estimation among wine-growers.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. APRIL 1, 1859. VOL. I.---NO. 4.

CALENDAR.

4th Month, April, 1859, 31 Days.

Moon's Phases	d	Boston.		Philad'a.		Baltim're		Charl't'n	
		h m		h m		h m		h m	
New.	3	5.34 mo		5.17 mo.		5.11 mor.		4.59 mor	
First Quarter.	10	6.37 mo		6.20 mo.		6 14 mor.		6.02 mor	
Full.	17	4.22 mo		4.05 mo.		3.59 mor.		3.47 mor	
Last Quarter.	24	11.59 ev.		11.44 eve		11.38 eve.		11.26 eve.	
Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	3	5.40	6.28	5.42	6.26	5.43	6.24	5.46	6.22
	10	5.27	6.34	5.30	6.33	5.31	6.30	5.36	6.26
	17	5.16	6.41	5.20	6.40	5.21	6.37	5.29	6.31
	24	5.04	6.49	5.10	6 47	5.11	6.44	5.21	6.36

This Calendar will answer for the sun for any place in the same latitude.

Hints for April.

FLOWER GARDEN.

THE most active period of the year in this department has now arrived, and much of the success of the season will depend on how the work is performed now. In preparing beds for flowers, it is of first importance that the soil should be *deep*. It should be dug up or subsoiled to the depth of eighteen inches at least, and a fair dressing of enriching material given them. The best kind of soil to grow flowers in is the top soil—say two inches in depth—of an old piece of woodland. This may be mixed at the rate of about one-half with the natural soil. Where this cannot be had, some very rotten stable-manure or the old sods from the surface of a common will do. It is not well to have the soil very rich, or more leaves than flowers will result.

As soon as all danger of frost is over, the border plants will have to be planted out. They should not be taken at once out of the greenhouse to the open ground. It is better to set them in a sheltered spot in their pots for a few days, until the leaves have become somewhat hardened. Before turning them out of their pots to the flower-beds, water well *first;* the soil must be pressed firmly against the balls of roots, as they are planted in the ground.

Where bedding-plants have to be bought, it is not good policy to choose tall, delicate plants, that have been forced early into growth. Select such as are green, dense and bushy, and have vigorous looking foliage. Fine leaves, at this season, is a greater sign of health than fine flowers.

As soon as the grass on the lawns commences to grow, if it has had a top-dressing of manure in the winter, whatever straw may be on should at once be cleanly raked off, and as soon as it is long enough to *take* the edge of the scythe, it should be mowed. It is of first importance that the first mowing should be done as early as possible in the season. If left to grow long before the first cutting, the leaves get yellow at the base, and at every cutting after the yellowness appears, totally destroying the fine green color which gives the lawn its chief attractions. Where a first-rate mowing is desired, it is best to roll the grass the day before cutting. The grass is then pressed all one way, and cut evenly, and any dirt or stones pressed beneath the surface that would otherwise take the edge off the scythe. A good lawn-mower keeps his scythe very sharp. Some grind a little before each regular set-to at mowing. Those who are not accustomed to mowing lawns, should take but a few inches in width at a time, so as not to "score." With a little thought and judgment, any field-mower can soon become a good lawn hand. A sharp scythe is the chief element of success.

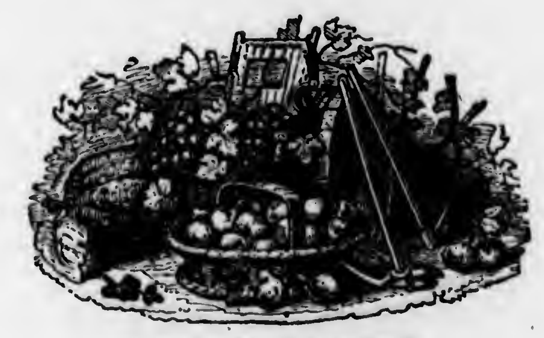
In planting out for summer show, climbing vines must not be forgotten. Screens can be formed of them, besides many beautiful and fanciful objects, and then their training over strings, wires and arbors, afford much pleasant and interesting occupation for the ladies.

The sowing of hardier annuals should be finished as soon as possible, according to directions furnished last month. The tender kinds, such as Balsams, Globe Amaranthus or Bachelor's Buttons, Thunbergias, &c., should be put in about the end of the month. There is now pretty well known an orange Globe Amaranthus (Gomphrena Hoveyi), introduced several seasons ago from Mexico by Mr. Hovey, of Boston, and in an open sunny spot, is really a very beautiful kind to grow. The Cypress vine, both white and crimson, is rather impatient of cold, and had better not be sown till the end of the month. Gladioluses are becoming a very popular summer-blooming bulb, as Hyacinths are for winter and spring. They are very beautiful, and thrive in any rich sandy soil.—They also may be planted the end of the month. The same may be said of Tuberoses. Do not forget when the autumn comes, to take up the roots, as they are injured by the first frosts.

I prefer the present and May to any other for trimming box-edgings. They look much better when cut to a conical form, than when squared at the top, and besides, are much less liable to die out in patches.

This is the best part of the spring, on the whole, to plant evergreens. For immediate effect, they are usually planted much thicker than they are ultimately able to occupy with any credit to themselves. In planting, take care to plant those that will finally remain first, and fill in the temporary ones after. It is not uncommon to see trees—a Norway Spruce, for instance, that will in a few years possess a diameter of thirty feet, planted perhaps but six or eight feet from the edge of a walk, and no other near to stay when the one so inconveniently close has to be removed.

Deciduous trees and shrubs may still be planted,—the longer, however, they are delayed till the middle of May, the more severely they should be pruned at planting. If this be attended to, there is no risk, if even the tree has burst nearly fully into leaf.



FRUIT GARDEN.

GRAFTING can be continued till the buds of the trees are nearly pushed into leaf. Sometimes, from a pressure of other work, some valuable scions have been left on hand too late to work. It may be interesting to know, that if such scions are put into the ground much the same as if they were cuttings, they will keep good for six weeks or two months, by which time the bark will run freely, when the scions may be treated as buds, and will succeed just as well as buds taken from young summer shoots.

In planting dwarf Pears, it is very important to have them on a spot that has a moist subsoil, either naturally, or made so by subsoiling or mixing some material with the soil that will give out moisture in dry weather. Trees already planted on a dry gravelly subsoil, should have a circle dug out two feet deep and two or three feet from the tree. This should be filled up with well-enriched soil. If the dwarf Pear does not grow freely, it is a sign that something is wrong. It should at once be severely pruned, so as to aid in producing a vigorous growth. The dwarf Pear, and many other kinds of fruit trees, are often liable to the attacks of the scale, a white insect, which gives to the tree a powdered appearance.—These may be readily destroyed before the buds burst by syringing the tree with water heated to 160°.

Strawberry-beds are very frequently made at this season, and though they will not bear fruit the same year, are much more certain to grow, and will produce a much better crop next year than when left till next August. Though it is a very common recommendation, we do not value a highly-manured soil. It should be well trenched or subsoiled; this we consider of great value. In rich soils there is too much danger of having more leaves than fruit.

VEGETABLE GARDEN.

THOSE who look with peculiar affection on the "sour krout" barrel, must look out at once, if not already sown, for good cabbage seed. The Drumhead is the kind most generally used; but those in the secret give a knowing wink when the Savoy is named in that connection. Purple Cape Brocoli, Autumn Cauliflower, and Red Dutch Cabbage by those who "love" pickles, must also be sown. After all the receipts given for preserving these seeds from the Turnip fly, the best plan is to sow the seeds in a frame or box with high sides. The "little jumper" does not seem to like to risk his limbs by a high leap, or his nasal organs may not be good—or "what the eye does not see the heart does not grieve for," or for some other reason, he leaves them alone under such circumstances. Celery, with most families, is an important crop, and should be sown about this period. A very rich moist spot, that will be shaded from the mid-day April sun, should be chosen; or a box in a frame by those who have the convenience.

Tomatoes, Egg-plants, Peppers, and similar plants, every gardener tries to get as forward as possible.—South of Philadelphia they may be out unprotected by the middle of the month. Here we seldom risk them before May. The same may be said of Sugar Corn, dwarf and Lima Beans, Okra, Squash, Cucumber, and Melons. No "time" can be set for sowing these, except not to sow till the ground has become warm. A few warm days often makes us "feel like gardening," but unless the ground is warmed, the seeds will be very likely to rot. Here we sow about the first week in May. Onions for seed should be sown in rich soil, but very thickly, so as not to be-

come larger than marbles. Very far North, where they perfect in one year, this advice is, of course, not intended. A crop of Carrots should be sown the end of April. In moist seasons the earlier crops are liable to run to seed.

Much has been written about growing Potatoes, and the plan of covering the sets with straw, leaves, or brushwood, before covering slightly with soil, is quite popular. Early York Cabbage sown last month, or kept over the winter, must now be planted out where there is a demand for summer greens; and to meet this want, another crop of Spinage may yet be sown.

Few things mark a well-kept garden better than an abundance of all kinds of herbs. Now is the time to make the beds. Sage, Thyme and Lavender, grow from slips, which may be set in now precisely as if an edging of box were to be made of them. They grow very easily. Basil and Sweet Marjoram must be sown in a rich warm border. Salsafy and Scorzonera like a damp rich soil.

FORCING.

We entered into this department so fully last month, that we can add little more now. As soon as the fruit trees in pots, intended for use next season, commence to grow, any shoots that appear to be growing much stronger than the others, should be stopped. This will cause them to push weaker, and while they are preparing to do this, the weaker ones will regain courage to go on with more vigor. If a good crop of fruit is set, it is better to thin somewhat after they are well stoned. I have gathered 300 peaches in May from a five-year old tree in a tub of two feet diameter, and think that is as many as such a tree can mature properly.

In some localities hotbed frames will yet be necessary a while longer, and a "lining" of fresh manure eighteen inches thick around the sides, will usually be found sufficient.

NURSERY.

We omitted any notice of this department last month, assured that any nurseryman who had time to read any thing but orders and invoices in March, would be connected with a line of stages or some other old fogyish concern by this time. The nursery business was not made for him. As soon as a little breathing-time occurs, no time will be lost in getting in cuttings, seedlings, and seeds of trees. Unless the soil is naturally deep and rich, it is a waste of time and labor to plant nursery stock.

At every practicable opportunity the soil should be trenched and enriched. When we speak of trenching, we do not mean that poor stiff subsoil should be brought to the surface, and the good rich surface soil buried two feet below. The proper way to proceed is this: Mark off by a line a piece of ground 3 feet wide, and of any length. Dig away the surface soil a good spade in depth, and wheel or throw entirely aside. Then dig up the subsoil deeply, leaving it in its natural locality. On this, place whatever manure you may have, and then mark off another 3 feet strip, throwing this time the surface soil on the manure over the subsoil in the former trench; by this process the subsoil is still kept below, and the top soil is still retained on the surface.

In transplanting young stock it is a good practice to cut most things in severely. This is especially sound as to fruit stocks intended for budding. The bark will not run well unless they grow freely, and they will not grow freely unless pruned. Seeds of Apple, and other seeds kept in sand-boxes through the winter, should be sown in the open air as soon as they show signs of swelling. They need not be sown before. Very often Apple, Pear, Cherry, Osage Orange, Honey Locust, and many other seeds that have been kept dry too long through the winter, will not grow till the spring following, in which case they are, for many reasons, much better in the boxes than in the open air.

In planting out very small seedlings, or plants newly rooted, it is usual to wait for showery weather. But "time and tide for no man wait." And it is very important not to let the right time slip by. If the small plants are dipped in a bucket of water kept by for the purpose, just before being set in the ground, and afterwards the soil pressed firmly about them, they do nearly as well as if nature watered them herself.

HOT AND GREENHOUSE.

Dahlias—one of the most popular of fall-blooming flowers—should now be put into pots, all the roots being shortened to admit of its being more readily done. As soon as they sprout, they should be taken off from the old stocks, a piece of root being retained with each shoot,—by the second week in May, the time to plant out Dahlias, they will be ready. Calceolarias and Cinerarias, of all house plants, hate a dry atmosphere, and on this account it is difficult to keep them over the summer. If there be any sunk pits at hand, such as are employed for wintering plants, no better place could be found for their summer quarters. The same remarks apply to the Pansy and Daisy.

At the end of the month Myrtles, Oleanders, &c., that have been wintered in cellars, should be taken out; but in most latitudes north of Baltimore, this is usually left for the first week in May, and we shall have more to say on this head and their treatment generally, in our next number.

Communications.

IS TRENCHING GROUND BENEFICIAL?

BY E. S, ABINGTON, PA.

Mr. Editor:

Will you allow me to make a few remarks under this head, more for the purpose of eliciting information than with a view of imparting any; for, though what I have to say may seem like taking decided ground, yet I hold that the limited observation of one individual cannot be considered as going far in determining such a question as this.

First allow me to give a little of my experience in connection with the subject of "Book-farming" in general, which will, I think, find a response in the experience of more than one of your readers. My connection practically with the business of tilling the earth commenced some fifteen years since. I engaged in agricultural and horticultural employment with plenty of zeal, but without much knowledge, and no experience. Having always been a great reader, I was not long in getting from books and elsewhere all the information that I supposed I needed. "Deep ploughing," "trenching," "subsoiling," "thorough pulverization," "improved stock;" these, along with "agricultural chemistry," and the "new fertilizers," 'bone-dust,' "plaster," "poudrette," "salt," and "lime," and the "phosphates," were to do wonders, making the heretofore laborious and ill-requited business of gardening and farming an "easy and profitable employment." I need not tell you that it required but a few years of practical experience to scatter these visionary delusions. My crops on trenched ground were not near so good as in that cultivated in the old way. "Subsoiling" I found to be worse than labor thrown away, and "thorough pulverization" a thorough humbug.

I did not abandon the business in disgust; the love of agricultural pursuits was too deeply seated in me, but I got disgusted with all agricultural publications. I saw that those of my neighbors who succeeded best in their farming operations were among that class who look with suspicion on every thing which savors of "book-farming." Whilst those who started with their book-theories most commonly in a short time abandoned the business, disgusted and disappointed, if not made bankrupt, I concluded practical men never write. Those who write are men who set in their closets and theorize, but do not work.

With these views I commenced the business of farming and market-gardening about a dozen years since, and by dint of persevering industry have been able to make the business pay better than I ever expected to do. But latterly I see wherein I was mislead. Instead of rejecting the whole, I should have sifted the wheat from the chaff,—that in rejecting the knowledge to be obtained from books, I have in fact been shutting my eyes to the light, and groping in darkness. Now, what I wish to come at is this, to caution you in the commencement of this great and good work you have undertaken, to avoid that which may be the means of inducing others to fall into the same errors into which I was led; I mean the common error, as it seems to me, of all such publications, of advocating theories which are merely plausible, but which have no foundation in truth. Let us have facts.

To the subject—trenching. In your first number is an article on this subject, in which you advocate the utility and profit of this practice. From my experience in trenching, it would be better to employ men in digging holes in the road and filling them up again. I trenched at one time with the spade, with my own hands, about one-half of a large garden, full two feet deep, applying at the same time rich fermented manure from the hog-pen, in successive layers from the bottom, giving as much as five or six ordinary heavy coats of manure. I was told at the time by a practical neighbor, that my labor and manure would be thrown away, and so it turned out.

This ground was planted with different kinds of vegetables, such as Beets, Carrots, Parsnips, Cabbage, &c., and neither that year, or ever after, was it possible to perceive any benefit whatever from all this labor and expense; but, on the contrary, some of the crops were inferior to those alongside treated in the ordinary way, and such has been the result of all my experience in "deep tillage." I have tried subsoil ploughing pretty extensively on different kinds of subsoils, and in no one instance with any perceptible good result. And now for the reason: the advocates for deep tillage argue, that it leaves the ground open, so that the air and moisture, as well as the roots of plants, can penetrate it, and allows the surplus rain to pass freely down and remain there to supply moisture in time of drought. This looks very well in theory, but in practice the very opposite result takes place; for the first heavy rain that falls (and every one knows, in our climate, how true is the proverb, "it never rains but it pours") your ground all runs together again, and then bakes amd becomes much harder on the surface for having had a portion of the subsoil mixed with the surface-soil. Any one may convince himself that this will be the case, by taking a portion of any ordinary subsoil, and let him pulverize it as much as he will, and then let it be thoroughly soaked with water, and see, when it dries, if it does not become so hard as to be totally unfit for any plant to grow or live in. At least, such is the nature of all the subsoils that I have had to do with, and no amount of exposure to the air, or of freezing and thawing, will remedy this. This being the nature of the subsoil, it follows that, when mixed with the surface, it has the effect to deteriorate it, and to that extent render it unfit for vegetation, and this is what I have found to be the case in all my experiments. In trenching or subsoiling, a portion of the poor soil from below will always become mixed with the surface-soil, and before the seed would have time to vegetate, the soaking rains which we have in the spring would melt the whole together, and when the ground became dry, it would be in a worse condition than if it had not been dug at all. Every one with the least experience in cultivation knows that the main thing is to keep the surface mellow, and this

cannot be done if the surface-soil is rendered liable to bake after every rain, by being deteriorated by mixture with the subsoil.

Now, I think I appreciate the value of a deep soil as much as any one possibly can; but this is not the way to obtain it, or at least in this way you lose more in quality than you gain in depth; such, at least, has been the result of my experience in the soils which have come under my notice.

When I first looked over your Specimen number I said, "Here is just the thing we have always wanted—a real truthful, matter-of-fact paper; none of your visionary theories to mislead and do more harm than good." But the first thing I laid my eyes on was this article on Trenching. I said, "Pshaw! here's the same old story again, and I must write to him and tell him what I think of this."

Please accept my best wishes for your success.

Yours, &c., E. S.

Montgomery County, Feb. 8, 1859.

[We are very much obliged to E. S. for the above comments. It shows how careful a writer should be in presuming too much on the intelligence of the reader. For instance, in dwelling so strongly on the advantages of trenching, we had forgotten that there is a system of trenching "described in books" which brings up the poor barren subsoil, and places the rich surface material below the reach of the plants; but we never saw a thoroughly practical man employ this system for any other purpose than to renovate a "manure-sick" kitchen-garden or thoroughly worn-out soil. We have spent many more hours in digging than we have ever done in writing, but we never trenched like that; and to those who have any idea of so doing, we commend our correspondent's remarks. In the mean time we have only to repeat, "Trench, trench, trench;" but in all your operations, *what is now the subsoil still keep so.*—Ed.]

SURFACE-MANURING.

BY WM. BRIGHT, LOGAN NURSERY, PHILA.

The agricultural circles are very much exercised at the present moment with the question, whether it is better to apply manure in a partially rotted state upon the surface of the earth, weeks or months before they are required for crops, or to decompose them in heaps, and plough them in as soon as applied, at planting time. The best writers, both practical and theoretical, in England and America seem to incline to the first-mentioned practice, in reference particularly to grass and grain; and the best effects are shown to have resulted from this method of application,—from surface-manuring.

The practice of top-dressing, or of surface-manuring, has long been the favorite method employed by all intelligent gardeners within the circle of my acquaintance. We have long ago learned that masses of rich, nitrogenous manures are not what plants require about their roots; but that manures are applied much more successfully (and less injuriously) by top-dressing, either in solid or liquid form. Nature never manures her plants with crude masses of concentrated fertilizing substances; but imparts her stimulating and mineral food in a state of the most minute division, (almost infinitesimal,) chiefly from the surface of the earth. No wonder so many fruit trees have been killed, so many grape-vines destroyed or rendered barren by excess of wood in consequence of the heavy manuring at the roots so universally recommended by writers on gardening and horticulture.

The great objection to surface-manuring is founded upon the probable loss of ammonia, caused by the exposure of decaying manures upon the surface of the earth. But this loss has been shown by shown by sound reasoning and by facts deduced from practical experience, to be much less than is commonly apprehended; while the benefits arising from surface-manuring, in other respects, more than counterbalance any possible loss of ammonia from this practice.

In the first place, when manures are exposed upon the surface of the earth, even in hot weather, decomposition no longer goes on so rapidly as when the same manures are kept in a heap, and the ammonia that is produced is gradually carried into the soil by rains. The other soluble substances, as potash, lime, the phosphates, &c., are, of course, not lost, because they are not volatile.

Nor are these soluble and valuable substances lost to plants by being carried into the soil before they are needed by growing plants. It has been conclusively shown by eminent scientific authorities, that any good soil, containing a fair proportion of clay and carbon, is capable of taking up and retaining effectually ammonia, lime, potash, soda, &c., in a soluble form, so that little, if any, passes off in the underdrainage water of such soils. These substances, it is true, may wash from the surface, but they cannot pass through a good soil, and go off in the drainage water.

By surface-manuring, we mulch the ground and render it cooler in summer and warmer in winter.—Mere shade is an important element in culture—so important, that some writers have thought shade alone to be equivalent to manure. A piece of soil heavily shaded by surface-manuring actually decomposes like a manure heap; that is, it undergoes a sort of putrefaction or chemical change, which sets free its chemical constituents, unlocks, as it were, its locked-up manurial treasures, and fits its natural elements to become the food of plants. Darkness, moisture and air, are the conditions required for vegetable and mineral decomposition. These conditions are produced in the soil by surface-manuring.

Then, again, when the surface-manure decomposes, its elements are washed into the soil, in a state of solution precisely fitted to meet the wants of plants, and they become themselves active agents in promoting further decomposition and chemical changes in the entire body of the soil.

Manure then, I say, chiefly upon the surface. Do not waste your manures by mixing them deeply with the soil. Plant shallow. Keep roots of all trees, plants and vines, as near the surface as possible.—There are weighty reasons for the position assumed in the last sentence, which I have not space now to enumerate. I say again, plant shallow. Let your soil be deep and dry, but plant near the surface. To farmers I would say, manure upon the surface as much as posssible. Top-dress your grass after mowing in July or August under a burning summer sun; top-dress in the fall, before and during the autumn rains; manure the surface while snow is on the ground, while the March winds blow, and while the April rains fall. Manure your grass, instead of your corn and wheat, broadcast, at any time when you have manure and leisure, and I will guarantee that you will be abundantly satisfied with the result.

To fruit-growers I would say, do not fill your soil with manure before you plant trees, grape-vines, &c. Plant in good natural soil, and manure from the surface, spring and fall, liberally and properly, and I will guarantee you success far greater than if you plant in holes and trenches filled with manure, as the custom is. Surface-manuring and mulching are the true doctrines. I am sure of it.

CURES FOR THE TURNIP FLY.

BY M., CINCINNATI, OHIO.

Many of your readers, like myself, have doubtless been much annoyed by the depredations of a small black fly, closely resembling the Turnip fly, which attacks the young plants of several varieties of vegetables, but particularly the Tomato and Egg-plant. I have tried a variety of remedies, such as young chickens, wood-ashes, and one which was recommended highly to me by a Virginian friend, viz: planting a stake alongside of each plant, a foot or two higher than the plant, with six or eight long strips of paper or muslin attached to its upper end. These being agitated by the wind, frightens the insect, which is remarkably timid. The latter was a partial protection, but the others entirely ineffectual. Do you know any better plan?

[A writer in the *Country Gentleman* recommends the following:

"Procure some small empty *white-lead kegs*, take both ends out and set a keg firmly down over each plant. This will protect them as long as they need protection. The insect will not enter this enclosure and the plant will grow all the better. I have also used old bottomless tin buckets; but they do not answer quite so well; unless they are large, they become heated by the sun and injure the plant. The insect sometimes enters the tin bucket, but the keg never.

"I presume any wooden box would answer if made about the same dimensions as the keg; if not, *paint, oil* or *grease* them, and I will warrant them.

"The boxes or kegs may be removed when the plants are being cultivated, and replaced. When the plants get too large for the keg, they may be removed. The insect only feeds upon them when young and tender."

We have often noticed the disinclination of the Turnip fly to get "over a stile," and have also found greasy water effectual in saving a bed of Cabbage plants, and have very little doubt the extract we give is one of the many useful things that so freely abound in the *Country Gentleman*.—Ed.]

PROPAGATING.

BY A PRACTICAL GARDENER, TROY, N. Y.

The article on Propagating Table by "Rustic," is very good. I adopted the same plan twenty-five years ago in England, but I find it can be improved by placing a tank of water over the furnace, which always gives me a fine moist heat, not only of use to propagating, but also to growing plants. This plan I adopt over all my furnaces, a cast-iron tank nine inches deep, the length and width according to circumstances.

Yours truly,

A Practical Gardener.

CULTURE OF HEDYCHIUMS.

BY DAKRY.

Dedham, Massachusetts, March, 1859.

Has it never occurred to you or your numerous readers that many really fine plants, through the rage for novelties, are entirely lost or neglected? The Hedychium, or "Garland Flower," is a case in point. These truly beautiful plants are all natives of the East Indies, and are by no means difficult to manage, and though upwards of twenty kinds have found their way into English gardens, perhaps not more than half-a-dozen could be found at the present day.

Old friends, Mr. Editor, have peculiar and endearing associations; and the *Hedychiums* being old friends of mine, are, as a matter of course, great favorites. I rather like the whole family of *Scitaminacea*,—their habit of growth and tropical appearance—the great beauty and sweetness of some, and the utility and value of others. The Ginger, for instance, (*Zingiber officinalis*,) if less conspicuous, is equally valuable as an article of commerce. Though they will live and grow in almost any soil or situation, it is only under a proper cultivation—a high state of cultivation, if I may so speak—that their beauty and sweetness are fully developed. The Hedychiums will not bear neglect. They are complete gluttons, and must have a good rich soil, plenty of moisture, and the warmest corner in the greenhouse, or a stove-heat 80° to 90° would perhaps be nearer their requirements. When the plant is at rest it is of little consequence where you put it. Very little, if any, water should be given. I have kept them for months without any. They ought to rest from four to six months of the year.

The mode of cultivation which I have found most successful is of the simplest description—good turfy loam with a fourth of well-rotted cow-manure well mixed together. The pots should be large enough to make another shift unnecessary, well drained, an inch or so of manure on the top of the drainage. This will be something for the roots to feed on as they reach the bottom of the pots. In potting, shake out

most of the old soil from the roots, and, if necessary, take out some of the old rhizomas, or underground stems; three or four is enough to leave and will fill a 9-inch pot.

Immediately after potting, give a good watering, and move them into their growing quarters. As the shoots begin to grow, water may be applied freely—too much can hardly be given after the plant starts into full growth. It has few, if any, enemies. An occasional shower with the syringe will frighten red spider and prevent the mealy bug, if any should be in the house, from nestling under the spathe of the of the flower-spike. They are increased readily from a division of the roots, suckers being produced in great abundance. The flowers, if gathered on their first opening, will keep, if placed in water in a cool room, for several days. After blooming, withhold water and cut down the stems within an inch of the crowns.

Hedychum gracile, if not the most showy, is certainly the most useful species, producing its sweet and snow-white flowers in great abundance, and continuing in bloom for a long time, or rather keeps up a constant succession of fresh flowers even in the dull months of November and December. In China and the Malaccas it is said to be much cultivated on account of its beauty and exquisite odor, and is frequently worn by the Indian belles in their hair—taking the place of orange-blossom in that country. To those who may have a taste or knowledge of the language of flowers, it is specially interesting; for in the symbolical language of the Malays, if presented to a young man, it is intended to reproach him for inconstancy in love.

Hedychium coronarium,—*flavescens* of some, is in its habit of growth and appearance not unlike the preceding. The flowers are pale yellow, and produced rather sparingly for about a month. Though well deserving a place in any collection, it is by no means equal to *H. gracile*.

Hedychium Gardnerianum.—This showy and splendid species is of stronger growth, with broader and darker green leaves than those mentioned. The flowers are yellow, with red filaments, and very fragrant; the plant, when in bloom, making a noble appearance, most of the flowers opening at the same time, and forming a long spreading spike. It grows five feet high, and though its blooming season is naturally in August, it may be had earlier or later, according to treatment. For an exhibition plant it is very effective; but it cannot always be caught at the proper time, as it only remains in perfection ten days, or a fortnight at most. If started early into growth, it often blooms twice in the season—about July and again in September.

These three species are the only kinds in cultivation round Boston, and even scarce at that. Why is this? In England it is much the same; they are much neglected there, though not to the same extent as here. Both countries seem to hunt after novelties, forgetting that some of our really most desirable and valuable plants are lingering out—perhaps under a stage most of the year—a miserable existence. Two more very distinct species are still to be found in some English collections, chiefly botanic gardens, which, if introduced here as *new* plants, could not fail to find their way to public favor.

H. angustifolium is very showy with vermillion or scarlet flowers borne on a large spike, often a foot in length, and as they usually open all about the same time, it has a magnificent appearance; it is fragrant, but in a much less degree than the preceding species.

H. elatum, a noble, very distinct and elegant species, often attaining, when well-grown, as much as eight or ten feet in height. The flowers are of a cream color, finely contrasted with its red filaments. Though not without fragrance, yet it cannot compare in this respect with the others. It flowered for the first time in England some thirty years ago, under the excellent management of Mr. Campbell, then Gardener to the Countess de Vaude at her seat near London. From this circumstance it is sometimes called the Countess de Vaud's Hedychium.

Loudon describes several other fine kinds, amongst which are *H. aurantiacum*, orange flowers; *H. carneum*, pink flowers; *H. longifolium*, red; *H. maximum*, large white; and *H. thyrsiforme*, a handsome and free-blooming white. No one with the proper means should be deterred from growing these plants from any supposed difficulty in their culture. Half the amount of care and attention which our Fuchsia and Pelargonium growers find necessary to bestow on their pets—and with much credit to themselves—would be all that is required to the proper growth and blooming of the Hedychium; and however beautiful the Pelargoniums and Fuchsias are,—and they are deservedly favorites with all,—the stately and magnificent *Hedychium*, with its chaste and sweetest of flowers, will lose nothing by the comparison.

DAKRY.

[WE have but lately received an inquiry from "one who has but a cellar," concerning the way to manage this, as friend "Dakry" says, truly beautiful tribe of plants.

The details given will make its culture very easy. As soon as it is brought out of the cellar, it should be potted as advised, set in a shallow pan of water, and set out in a warm sunny spot. In most of our latitudes the sun's heat alone will probably be able to bring it into flower in September.—ED.]

FRUITS IN ALABAMA.

BY C. J. D., MOUNT VERNON, NEAR MOBILE.

I PROMISED to give you a few more items of what might be information to some of your readers as to our fruits.

In the first place, Peaches do superbly. If they should ever fail in the Middle States, Alabama is able to raise fruit enough to supply the whole Union.—Most of the diseases that prove so fatal to trees in the North are unknown here. They are long-lived and durable. We let them branch out low down to the ground, by which the branches help to shade the ground about the roots, which we find very beneficial. I could show you Peach trees with trunks as large near the ground as many of your old Apple trees.

Raspberries, Currants and Gooseberries do very poorly, so far; very few attempts having afforded any encouragement. They are better adapted to temperate climates. The same is not the case with the Strawberry, which succeeds well, and is extensively grown.

But perhaps the most successful fruit of all with us is the Fig. Wherever it ripens in the Middle States, it is well worth eating; but here it is delicious, and very highly prized. They are perhaps more extensively grown than any other fruit.

Blackberries do probably quite as well as with you, which is singular, considering that its neighbor the Raspberry does so poorly.

Apricots and Nectarines do quite as well in our region as the Peach, though not grown quite so extensively.

The Apple and Pear are very generally considered to do but poorly in the Southern States. This, however, has been proved to be a wrong idea; wherever tried they have proved quite successful.

Besides these, we cultivate here the bitter Orange with great success.

It would please you to see the denizens of your plant-houses luxuriating in the open air here. The Cape Jasmine, Olea fragrans, Magnolia fuscata, Gelsemium nitidum, Oleanders, Banksian Roses, &c., stand out all the winter, and when in bloom fill the air with their powerful fragrance. We have frequently had to have the flowers cut off a large Cape Jasmine that stood near the house, the fragrance being so powerful as to affect us sensibly.

TO GROW APPLE SEED.—The most safe and convenient way is to mix the seed in sand, allow it to freeze and keep in a cool place until about the first of May, when they are to be sown in drills. An essential to success, is to keep the seeds moist after freezing, as subsequent drying will prevent their growing. —*N. W. Prairie Farmer.*

DESTROY THE MICE.

MR. EDITOR:—Early last winter, upon examination of the young trees in my nursery, I discovered, to my sorrow, that the ground mice had girdled and cut off about four hundred apple trees. They being planted near the woods, where there was much rubbish, I was alarmed, for I expected last winter they would make clean work of it. I immediately treated them to a plentiful mess of arsenic, mixed with cornmeal, which I placed in their burrows about where they were doing the mischief. The result is—my trees have not since then been molested.

Yours respectfully, JAMES KELLY.

MIDDLE CREEK, Kentucky.

STRIKING CUTTINGS IN MOSS.

BY AN OLD PACKER.

ROCHESTER, New York.

DEAR SIR:—May I suggest that you give us "the reason why" a little more in some of your recommendations? For instance, you say, in getting grape cuttings ready for insertion in the boxes, as a preferatory step, to put them under the damp cool stage of a greenhouse or cellar, and the more refractory the subject, like an undutiful child, the longer he is to be kept in the reformatory. Now, *why?* what does the reformatory effect for it?—does it heal the wound better? You must excuse my ignorance, but perhaps there are other readers of the *Monthly* as ignorant as myself. I have never hoisted the "blue apron;" therefore I am excusable for such ignorance. My only claim to a connection with your fraternity is a twenty years' servitude in nursery and seed shops and packing-sheds, which gives one constituted as I am a desire to associate with, and enlist under, the "blue serge banner." An additional fact occurred to me on reading your "Moss for Cuttings." I have repeatedly been struck, on unpacking European importations, with the beautiful healthy callous on all kinds of sticks which have got packed in with the moss used in packing, demonstrating clearly that there they found the "happy medium" of warmth and moisture so essential for the production of that effect.

[IT is very often hard to tell "the reason why" in every case. Science has always to explain facts, and it usually takes a great many facts, observed under many circumstances, to afford the deduction of one scientific truth. That Grape, Rose, and many other cuttings do better if cut off several days or longer, and placed in a rather dark and damp place, where they will be just so moist only as will prevent evaporation, is a fact we have often verified. Possibly the vessels severed in the operation at the end of the cutting, may get partially healed so as not to be so readily effected by damp. Collodion, for instance, when so applied to the end of a cutting, thereby forming an artificial skin, has been found very useful when applied. Perhaps it is the darkness itself, which, by preventing a too rapid decomposition of certain elements, favors root production.

The observations on rooting cuttings in moss we are pleased to receive. We regard this idea as one we are to thank our German cousins for, as much as for any thing we have had for a long time. We have little doubt that many things can be struck this way that have been heretofore thought almost impracticable. Our own experiments have been very flattering. All firm-wooded cuttings do admirably. *Clerodendrons, Franciscea*s, and other things rooted readily in a few weeks. The great beauty of the practice is, that cuttings so treated require little or no water; and it is probably through this and the greater quantity of air circulating through that induces so ready a strike of roots. One pot of Clerodendron Bungei, on which we experimented, made up of hard wood of last season's growth, and now rooted, has not had any water from first to last, now over six weeks.—ED.]

SARRATIA CAMPESTRIS.—An annual gentianeous plant from Arkansas, with numerous scarlet, sweet-scented flowers, over one inch across.

HEDGES: PYRUS JAPONICA AND HONEY LOCUST.

BY ACACIA, POUGHKEEPSIE, N. Y.

ACACIA FARM, February 4th, 1859.

Editor of Gardener's Monthly:

DEAR SIR—Reference is made by a writer on "*Hedges in the South*," in No. 2 of your publication, to the Pyrus japonica for hedges in the North. Unquestionably it will make a better protective hedge than any plant grown in the Northern States. In rich soil it throws up such a bountiful supply of suckers, that it would fence against mice if we could deprive them of their climbing propensities. I am of the opinion that this prolific suckering disqualifies it for hedges. There is a short hedge of this beautiful plant near the city of Poughkeepsie, about seven years old. It is a perfect protective hedge; nothing can go through it; and, in its flowering season, nothing akin to hedges can appear more beautiful.—Originally it was a single row of plants, set a few inches apart; it is now a thick mass of small plants eighteen or twenty inches thick at the bottom, and each year adds to its thickness. This practical result suggests the mathematical problem—If a farm is divided in twenty acre lots by hedges which increase their base two inches a year, how long will it be before the proprietor will have to abdicate his premises and leave his hedges entire occupants?

Although I think this the nature of the Pyrus japonica, it may be accidental in the only hedge made of it I have had to make observation on. It may be worthy of further trial. I would not discourage experiments on any plant offering encouragement of utility for American hedges.

The plant destined to fill this great purpose is not yet definitely selected, although much needed, and each year adds to its necessity. The Osage Orange, with all its faults, has already gained a fair reputation. Its uncertainty above 40° north latitude renders a hardier plant necessary for our vast and fertile prairies of the Northwest. The Buckthorn and Washington I think would answer a good purpose; but they grow too slow for this fast age. After closely examining different kinds of plants for hedges for my farm, closely comparing their virtues and their faults, I have come to the conclusion to try Honey Locust, (*Gleditschia triacanthas*,) and have prepared several bushels of seed for that purpose, to be planted next spring. It is a hardy plant, a rapid grower, and never subject to disease or the borer, and possessing the most formidable thorns of any tree I know. In Pennsylvania and Ohio, where it is indigenous, it is a large forest tree, the trunk sometimes attaining the diameter of four feet. The few Honey Locust hedges I have seen are protective, yet I have never seen one properly cut or trimmed. The cutting was delayed until the plants attained nearly the usual height of the hedge, then kept down to that height, which gives a good thick matted head, but a lean or thin bottom. This defect can be prevented by timely and thorough trimming. The size the tree attains in its native forest would indicate that it would not bear crowding. The distance these plants should be set apart in the hedge-rows, and the manner of trimming best adapted to them, are yet to be learned by experiments.

I have never seen this plant sucker, or seed in the hedge-row, and it is entirely free from the drooping habits of the Osage Orange; but its upright tendency requires the plashing to be done with care,—each branch must have an upward inclination; if it does not, that part of the branch inclining downward from the horizontal part of it almost invariably dies.

I have no doubt but an article from some of your correspondents, giving practical information of the best mode of planting the seeds, setting the plants in hedge-rows, and trimming them, would be gratefully received by your readers and much benefit our farmers. ACACIA.

[SOME of the finest hedges we have seen have been of Honey Locust; *but*, being naturally a tree, great attention must be given to *summer pruning*. No hedge that requires "plashing" has been properly treated. The great objection to the Washington Thorn (*Cratægus coccinea*) is its liability to attacks of the borer and parasite fungi.—ED.]

NEW AND PROFITABLE CROPS TO RAISE. THE POPPY.

BY F. S. NAUTS.

THE POPPY (*Papaver somniferum*) is very extensively cultivated in Europe and Asia, for the OIL which is expressed from the seeds, or for the OPIUM that is made from it juices.

There are three varieties in cultivation, viz: the *common Poppy* with *gray seeds*; the *Blind Poppy*, differing from the preceding by its larger capsules or heads, and absence of the opercules or openings in them; and the *White Poppy*, with large capsules also, and the white color of its flowers and seeds.

The *Grey Poppy* is preferred for oil for the greater abundance of its flowers and fruits. The *White Poppy* is principally cultivated for its capsules, which are used for medicinal purposes; also to make opium from its larger capsules, some of which often grow as large as a good-sized apple; but its seeds give a superior oil to that from the Grey Poppy.

The Poppy has pivot-like roots; cylindrical, smooth, branching stalks three or four feet high; alternate amplexical leaves, dentated and waved and bent, thick, long and smooth; the flowers are commonly red or purple, but variable, and about four inches in diameter; the capsules are globular, and pierced at the top with openings at maturity.

The best soil for the Poppy is a light rich loam, prepared and properly manured, say about 15 loads per acre, and deeply ploughed in the fall; particularly when the soil is somewhat stiff, lightly cross-ploughed and well harrowed in the spring, and the seed then sown from early in March until May—the sooner the better, as it can even be sown on the late snows; the seeds being very fine, smaller than Clover seed, from ten to sixteen ounces may be sown per acre, in drills from 1½ to 2½ feet apart, thinly in the drills, and rolled in. Where the land is liable to bake, it can be kept light and favorable for germination by covering the drills with clean chaff or salt hay lightly, as this will keep the ground moist and warm.

As soon as the plants are from four to five inches high, they should be thinned to eight or twelve inches in the row, slightly earthed up and kept clean through the season with the hoe or cultivator.

In July or August the seeds ripen, which is known by the heads turning dark and dry. The harvesting is done in different ways; where labor can easily be obtained, by sending boys or women in the rows with baskets, bending the ripe heads over them without breaking them and shaking the seeds, which will fall out of the openings; such seeds as are not yet quite ripe can remain for six or eight days longer, and be beaten out afterwards; or, by pulling up the plants, placing them in bundles in the field, leaving them to dry there for several days, and then shaking them out in barrels; or after all are taken up and dried in the field, removing the bundles in the barn and beating out the seeds with flails, then cleaning and winnowing them and sifting in sieves just large enough to let the seed only go through.

The produce, in favorable circumstances, will be from twenty to twenty-five bushels per acre, which, on expression, will yield from two and a half to three gallons per bushel of excellent oil. The oil of the White Poppy is nearly as good,—is as good as olive oil, and will bring the same price. The oil of the common Poppy is only a little inferior, but gives more. The stems and leaves, after threshing, are good food for large and small cattle; and, after expressing the oil, the residue or cake, which may amount, on an average, to 400 or 600 lbs. per acre, is an excellent manure,—as good as guano, but more permanent or lasting.

Besides the oil, Poppy produces the OPIUM of commerce. The manipulation of this, however, is a delicate and tedious, but very profitable, process. It requires a number of hands to make the necessary incisions in the green capsules or heads, and collect the juice as it exudes and hardens, day by day, until a large quantity is gathered, and the heads yield no more juice. The process, however, might be simplified by crushing the heads and collecting the juice as it flows out, and let it dry in the air until it thickens, when it can be made up into balls of about one or two pounds each. The opium that has been obtained by a few partial trials in the United States has proved to be of excellent quality, containing the proper quantity of morphine in its mass, so as to place it almost on a level with the best opium raised in the East Indies; however, not so dangerous in its quality.

Poppy-heads, used in good quantities by druggists for several medicinal purposes, can be easily raised in gardens or fields, and prove also very profitable. Besides which, all the varieties of Poppies are very ornamental as flowering annual plants, and contribute greatly to adorn the garden and shrubbery by their very beautiful and variegated flowers.

Any one wishing to make a trial, can address me for the seeds, which I will procure in time for seeding. F. A. NAUTS.

P. O. PHILADELPHIA, Feb. 15th, 1859.

GRAFTING GRAPE-VINES.

BY A. MARSHALL.

MR. EDITOR:—Some years ago in the field culture of the grape I experimented somewhat with wild vines; but my hopes were not realized, and I concluded to graft the Catawba on to them. I had 120 such, and in order that the stumps (about one inch in diameter) might not be long exposed to the drying air, twenty were taken at a time to be operated on. The time of year was between the middle and last of March. The soil was removed four or five inches, or down to the roots. The stump was sawed off two inches below the surface with a fine sash-saw; the stump smoothed with a sharp knife, split in the centre, and two grafts inserted, one on either side. The grafts were but two buds in length, and so prepared and set that the lower one rested on the shoulder of the stump, and the other one projected above the surface. Grafting-wax was used liberally, so as to close every crevice and cover every wound of both stump and graft, and the soil closed up carefully as soon as the twenty were operated on.

I thus proceeded until I had finished the whole number, with the exception of closing the soil about the last twenty, when I was called away to attend to other matters. It being Saturday evening, I was unable to give them further attention until the next Monday morning, at which time I closed up the soil about the remaining twenty.

Now mark the result. Of the one hundred that had the soil closed up around the stump immediately, not more than two entirely missed, either one or both of the grafts grew. Of the other twenty, not more than two gave any reward for my labor. This difference in the result I attribute entirely to the protection afforded by replacing the soil immediately and excluding the dry air. I should also state for the encouragement of others, that the successful ones were a real success. They grew and fruited equal to the Catawba on its own roots—I cannot say either better or worse. There is one peculiarity about operating on a grape stump. When split, they are apt to diverge from the centre and refuse to hold the graft. This makes it necessary, sometimes, to tie in before waxing. The grafts should be prepared and set with the outside bark fitting to that of the stump, the same as in tree-grafting.

Very respectfully, &c., A. MARSHALL.

OUR readers will join us in thanking Mr. Marshall for his useful hints. While on the subject, *The Homestead*, in alluding to our article in a former number, recommends to cut up pieces of the root and graft thereon, as is done with apples. This is a useful hint to those who wish to make the most of new kinds, and have not the heat or conveniences necessary to propagate by eyes.—ED.]

INFLUENCE OF HORTICULTURAL SOCIETIES.

BY ERROLBRAE.

It appears to us that those who have been observant of the changes that have quietly taken place in the appearance of the country about our large cities, must cheerfully give a large portion of the credit, due for the improvement, to their Horticultural Societies. They have been the means of originating, in many cases, and encouraging in others, the taste for possessing and beautifying suburban residences; and we think that every effort should be made by those who would refine the minds and habits of the rising generation, to extend their healthful influences. We cannot do better than give an extract from a circular issued some years since, "Expressive concisely of the objects, advantages and claims of the Pennsylvania Horticultural Society," and to which we invite attention, and urge our friends to add to its membership, and thus promote its usefulness:

"The objects of this society, as defined in the preamble to the act of incorporation, are to promote and encourage horticulture, by improving the growth of vegetables, plants, trees, fruits and flowers, and of introducing into our country new varieties and species.

The advantages which have resulted to the community from the thus far partial accomplishment of the objects of the society, may be seen in a strong light, by reference to the extraordinary improvement and extension of vegetables; pomological, landscape and floral gardening; to the very abundant supply of our markets, their tasteful arrangement and superior quality, as contrasted with others; and with what they were prior to the formation of this society; to the improved intelligence, industry and success of our nurserymen and commercial gardeners; and their ability to transport at a profit very extensive supplies of trees, fruits, plants, floral designs, bouquets and vegetables to distant and less favored cities, towns and neighborhoods; to the numerous new and superior varieties of fruits and flowering plants, which have been within a few years introduced from abroad, and the many which have originated in our own vicinity, to the extensive and magnificent annual and monthly exhibitions; the large and respectable attendance on them, and the social interchange of intellectual and practical ideas; to the free use made of the society's library, at present the best and most extensive of the kind in our country; and to the general increase and improvement of architectural and garden embellishments, and the extensive use of floral designs, bouquets and rare plants, to ornament our conservatories, halls, drawing-rooms and tables. But there are advantages in embryo of a far higher grade than these, which may be expected to result to the community from a cultivated taste for horticulture and its collateral sciences. And these will manifest themselves in improved moral and intellectual culture; in industrial, temperate and time-saving habits; in healthful, rational and delightful amusements; in improving, softening and rendering more pure the dispositions, tempers and affections, and in contributing largely to make our residences the home of taste, beauty, fragrance, contentment and social enjoyment."

THE CASSABAR MELON.

BY J. F. EVANS, M.D.

Wallace, Pa., February 17th, 1859.

The Cassabar Melon will succeed wherever the common Nutmeg Cantelcup may be grown. Here, in a country very illy adapted to melon-growing,—it being elevated and cold, and the soil decidedly clayey,—I have succeeded in growing it to perfection and in great abundance. In 1857, from a few seeds I planted two hills, which produced fifteen melons, by far the most luscious that I had ever tasted. The smallest of these measured eight inches in length by four and a half in transverse diameter,—the largest 13½ inches by 6¼. The same year I planted a considerable lot of the Nutmeg variety, the result of which was a total failure.

Last season the thirty-second part of an acre yielded me over seven hundred pounds.

The Cassabar Melon has a rough netted skin, like the Nutmeg. The flesh is a greenish white, exceedingly rich, sweet, aromatic, and perfectly free from all toughness or coarseness and fibre. The rind, when fully ripe, is scarcely thicker than a silver dollar, and the seed cavity quite small. Nine-tenths of the entire melon is delicious flesh.

In their culture last season I had a little hotbed frame made for each hill, of such size as to be covered by two 10 x 12 inch panes of glass. I planted about the 1st of April. The melons commenced ripening early in August, and thence on until cut short by the frost. I would strongly recommend this plan to all whose location, like my own, is rather cold. It will enable them to plant at least six weeks earlier than they could with safety otherwise, and as a consequence, have the fruit on the table a month earlier.

The greatest enemy of the vines is the striped bug, and the best remedy I know of is a mixture of hen-dung and water applied plenteously under the vines. The bugs become disgusted, and leave. I have tried guano and sulphur under the vines, but these, though effective, injure the plants at every point of contact, while hen-dung greatly stimulates their growth.

[What has become of the "Mexican" or "Christiana" Melon? A few years ago it was very popular, being hardier than other melons, more productive, and less waste, with a long or oval shape. Our friend's description of the "Cassabar" reminds us strongly of it. In a private note, Dr. Evans kindly offers to distribute the seeds he has on hand, either as free gifts or by way of exchange.—Ed.]

HISTORY OF THE VERBENA.

BY AN OLD FLORIST, PHILADELPHIA.

Verbena culture did not long remain about Philadelphia. Jersey City contributed several very elegant varieties; amongst them *bicolor grandiflora*, which was the first scarlet with a crimson eye. New York and its vicinity produced their quota. Boston sent out quantities; several of which found their way to London, the great floral mart of the world. Baltimore was not behind in her ardor, and several amateur cultivators produced very elegant sorts, one of which was offered by nurserymen as having flowers as large as a quarter of a dollar. Many flowers go over that now, and half a dollar is now quoted as the largest size, and equally as round. From Ohio we have had *Phenomenon, Col. Fremont and Ohio Beauty*, so that we may quote the flower "forms a circle."

To say what the color of the Verbena now is would be a hazard: every color of the rainbow nearly enters into its gorgeous charms, from modesty to grandeur, in every shade, (not even yellow excepted,) The first of striped varieties was *Striped Eclipse*, then came *Madame Lamounier*, lately *Imperatrice Elisabeth*, and what the present season may offer in that way, has not yet transpired.

The "*rage*," as it is termed, follows those colors of violet purple, gooseberry scarlet, and rose, with large white or crimson eyes; the eye is the *idol*, and must be prominent, the floret or flower must be large and round, no indentations, twists or fringes. The truss in the form of a corymb, is the most esteemed, and for bedding purposes an ample foliage, not subject to mildew, and with free growth, throwing the trusses well above the foliage, and you and your readers may be assured, that of the 100 advertised by nurserymen and florists, there are not over one dozen worth culture for general bedding purposes. I do not censure them for large large lists; their customers, no doubt, are ever anxious for "something new," you will say now "give us your dozen." In doing so I might touch some sensitive individuals, and have a dozen anonymous anathemas hurled at my frail vision.

The culture of the Verbena is so simple, that any item on that subject may not be required. They must have full exposed situations, free winds, free suns, a soil of a light friable texture, inclining to dryness rather than moisture. Constant watering at the root or over head is injurious. The greatest of all errors is late planting. The poor, attenuated forms that are sent out from houses surcharged with moisture, planted late, struggle for weeks between life and death, finally they begin to exist, and before they make one good growth a few hot days arrive, and give them "*coup de soleil*." Plant early is the great secret. Do not select plants from their size, but prefer those of a stiff hardy appearance. They should all be planted before the white oak expands its foliage. Select distinct colors, and enough of them to have an effect. I would advise to plant in patches or clumps; they do well in vases and even hanging baskets. You read and hear much about ribband planting: it is quite effective when planted 3 or 400 yards long as at the Duke's, or half a mile as at Frogmore, or even a mile long as at Trentham, but we grow and buy with the million, and I will even say a few yards long is passable, and about 6 feet wide, where you may introduce a line of blue or purple next the walk, then a line of white, and the back or third row scarlet or crimson. There is fashion in all matters, and this appears now to be that of Verbena planting.

In reviewing this article, a few home reflections occur:—How is it that our florists send their best productions to a foreign market for compensating prices? How is it that the English have taken the lead in producing the most beautiful self-colored sorts, and the French florists the best fanciful variegated and striped sorts? Is it necessary that they must all have foreign titles to sell them? Have we no confidence in republican or democratic names? Will the *Gardener's Monthly* not give some stability and character to American productions—*to domestic fabrics*? Some of the finest fruits are American-born; the finest Camellias are American; the finest Azaleas are American, and a few of very excellent Roses are purely American. I hope the Sun of the American gardeners is in the ascendant, and *their Monthly* be a welcome and expectant visitor, detailing the experience of the best fruit and floral portion of the globe.

RENEWING HEAT IN OLD HOTBEDS.

BY J. S. HOUGHTON, M.D.

The new method of exciting heat in old hotbeds, communicated to the *Gardener's Monthly* by Dr. Uhler, has brought to my mind a process of accomplishing the same result by chemical means, which I adopted, with success, some years ago, and which may serve as a useful hint to gardeners, in connection with the new method above alluded to.

Dr. Uhler renewed the heat of old hotbeds by pouring into them a hot solution of glue, distillery swill, &c., nitrogenous and rapidly decomposing substances, which act as a sort of yeast, or fermenting agents, to excite decomposition in the substance of the beds.

I accomplished the same thing, using a hot solution of potash in a partially caustic state. The circumstances were these:

I had several hundred feet of hotbeds, devoted to the raising of early vegetables and plants for market. In mid-winter my gardener informed me that the beds were declining in heat, and that, if not speedily attended to, we should lose the entire labor of the season. We were ten miles from the city, on the river, which was frozen over, and travelling was bad. We had no manure on hand, and could not obtain any without great labor and expense, and even if we had, it would not produce sufficient heat in time to save the beds. I immediately turned to chemistry for aid. We had collected several hundred horse-loads of oak and pine leaves (chiefly what is called pine straw) which lay in a heap near the hotbeds, covered and mixed with snow and ice. To excite a heat sufficient for hotbeds, in this unpromising mass, in mid-winter, might seem a hopeless task. But I resolved to try it, by the aid of potash in hot solution. I did so, and succeeded perfectly. The snow and ice in the heap served the purpose of water; and the heap speedily showed a good heat, and formed an admirable lining for the hotbeds. I poured the same solution into the hotbeds themselves, and in a few days we had heat enough and to spare.

I will add a few practical hints upon the use of potash, soda-ash and other alkalies to excite heat in old hotbeds, and the means of increasing the power of these agents, when great heat is required, or when the temperature of the air is very low, and the beds very old and very cold.

Potash, and lye from wood-ashes are the same, as every body knows. But these substances, although powerful decomposing agents, and often sufficiently so to answer the purpose, are not in the truly caustic state, but may be rendered so by the addition of freshly slacked stone lime, and they will show a greatly increased power when applied to hotbeds.—In mixing them, add one and a half parts of lime to one part of potash or equal parts of lime and lye.—The chemical laws and processes by which this result is obtained, I will not take space to describe.

Carbonate of soda, washing soda, or soda ash, may be used in place of potash, with precisely the same effect and equal success, by mixing freshly slacked lime with the soda in the same way as with potash.

If you wish a very quick and powerful heat, add to the hot solution of potash or soda, fluid glue or distillery swill, blood, animal offal, or Peruvian guano, say one quart of solution of glue, or animal offal, or one pound of guano, to the gallon of potash or soda mixture, or equal parts of potash or soda mixture and swill. After applying the mixture, add plenty of boiling water. The hotter all the solutions are, the better.

The potash or soda alone, I think, will prove more powerful than the solution of glue, and will continue its effects for a longer time, but with the addition of glue, animal matter, swill or guano, will meet the utmost requirements of the gardener in the coldest seasons.

In using potash or soda as advised, these substances are not lost, but will be retained by the bed of manure, and will be worth their cost as fertilizers in the garden.

Philadelphia, March, 1859.

THE FORK *VERSUS* THE SPADE.

BY PETER HENDERSON, JERSEY CITY, N. J.

Mr. Editor:—Amongst the many interesting and edifying articles contained in the *Monthly* for March, none arrested my attention more than "The Drag Hoe." Its superiority over the common Draw Hoe is evident at once when used in the manner described. Any implement, or suggestion that tends to simplify labor, is hailed with pleasure by we of the trade, who rarely have enough of the "commodity" at hand to supply the demand.

For several years I have made a similar exchange in using four and five-tined manure-forks for all our rough digging, instead of the spade. The work performed with the fork is better done and in one-half the time than with the spade, and with far more ease to the workman. Peter Henderson.

DR. UHLER'S HOTBEDS.

BY JOHN HAMILTON, GARDENER TO D. R. KING, ESQ.

In my last communication I gave you the result of my experiment with "swill" or distillery slop on a bed of two lights up to February 14th, at which time the thermometer showed a bottom heat of 80°.

From daily observations I find that the thermometer since that has remained nearly stationary, rising on the 16th to 82°, and on the 19th to 84°, since which time it subsided to 82°, and has remained at about that point ever since, although the weather being quite open probably prevented it from falling a little.

In applying the swill to this bed, I made holes down in it with a crowbar, supposing that it would penetrate the bed more easily; but in this I was mistaken, as I have reason to think that it found its way to the bottom of the bed without soaking it thoroughly, and to this fact I attribute the partial success met with in this trial.

On the 16th of February I applied the swill to another bed of three sash of spent manure. To this I applied about the same proportion of slop as in the first trial; but instead of making holes down in the bed, I poured it over the surface (the soil having been removed), and allowed it to soak away. The temperature of the bed before the slop was applied was 55°. On the morning of the 18th it had risen to 60°; on the 19th to 68°; on the 20th, 75; on the 21st, 84°; on the 22nd, 90°, when I put on the soil. On the 23d, 96°; on the 24th, 100°; on the 25th, 100°; on the 26th, 100°, when I pricked out in the bed young Tomato and Egg plants. On the 27th, 98°; on the 28th, 97°; on the 1st of March, 98°.—It is scarcely necessary to give the remaining observations, as they have not varied more than 2° up to this time (March 15th), ranging from 97° to 99°.—The uniformity of the temperature is really wonderful. My plants are growing finely, and of remarkably healthy appearance. The heat does not appear so *dry* as that from a dung bed, and the bed does not require such close attention, as the heat is more regular. Yours respectfully, J. H.

THUNBERGIA LAURIFOLIA.

BY AN ENGLISH CORRESPONDENT.

Fir Vale, January 27th, 1859.

I have long wanted a blue for winter to mix with my Poinsettas, Euphorbias, &c., and in the above plant I have found the particular shade and character. It is a very free bloomer, and it is a very pretty blue, and coming into bloom in the middle of the winter, I need not say that it is a very desirable ornament, and I believe one that will become a favorite.

The Thunbergia grandiflora is very pretty, but it is very shy at blooming, so that the *Laurifolia* will quite supersede it. It is readily propagated by cuttings, and should be potted progressively until it fills a 12-inch (diameter) pot. The shoots should be trained away from the plant on small wire, giving them every encouragement to grow, until they show signs of resting. When the flower-buds appear, then the shoots may be unfastened and then twisted round any trellis or device. By doing this, the flowers may be arranged to suit the taste of the cultivator.

I have used a strong solution of bitter aloes as a wash for this plant, which has kept it clean and free from insects, and so has probably assisted in perfecting the great numbers of flowers now open.

[A fine specimen recently appeared at the Pennsylvania Horticultural Society's exhibition.—Ed.]

New Plants.

Agapetes buxifolia.—Another very pretty form of vaccineæ from Bootan, where it is Epiphytal on the mossy trunks of trees in damp forests. The scarlet bell-shaped flowers, and box-like foliage, give it a very interesting look.

Meyenia erecta.—The Torenia Asiatica will give a very good idea of this plant, both in the color of its flowers and its general appearance. The flowers, however, have a long white tube and a yellow throat. It will make a popular stove plant. From the coast of Africa. Nat. or Acanthaceæ.

Torenia pulcherrima.—A singularly beautiful variety of the favorite Torenia Asiatica. The tube of the corolla and its eye are a purple violet; the two side lobes are the same color, fading at the edge into pure violet; the upper lobe is pale violet; the lower is with a purple oblate blotch at the point. This variety puts the old original kind quite out of the field.

Œnothera bistorta Vietchiana. — Promises to be one of the best of any yellow-flowered plants for bedding out, the stems being of humble stature, the flowers large and copious with a copious succession on the racemes, and when fully expanded, the petals exhibit a dark-orange or blood-colored spot at the base of each petal, as in some of the Cistus tribe, The species seems peculiar to South California, Nuttall found it at San Diego.

Æsculus Californica.—The Californian Horse-Chestnut was probably first detected by Nuttall, at Monterey; and Drs. Torrey and Gray adopted his manuscript name. It is described as a low, spreading tree; the tallest seen by Mr. Newberry not more than 20 feet high. It has the merit of blossoming at an early age, and is remarkable for the dense clusters of flowers, said to be rose-colored in the native country, but which are assuredly white in our specimen.

We flowered this last season, and the flowers were of a rosy white.

Exochorda grandiflora (alias Spiræa grandiflora; Bot. Mag. t. 4795. Supra 1854, p. 439.)—This fine plant has at length formed ripe fruit, from which we learn that the opinion expressed in the place above quoted, was correct, and that it is neither an Amelanchier, as Fortune supposed, nor a Spiræa.

This handsome shrub, with its large flowers, like those of a Philadelphus, is quite hardy. Mr. Fortune's first specimens were marked "A dwarf shrub, north of China, flowering in March, 1845." His second "Hills of Chekiang, May, 1855, in young fruit." Mr. Standish informs us that the flowers withstand all spring frosts without injury. They begin to appear about the middle of April and continue to the end of May, in the form of beautiful spikes of pure white which stand erect above the branches.

Inga macrophylla (Large-leaved Inga.)—This handsome stove shrub is a native of Peru. It produces beautiful heads of yellow flowers in April. Introduced in 1849. (Bot. Mag. t. 5075.) *Fabaceæ.*

Ouvirandra Bernieriana (Bernier's Latticeleaf.)—This native of the laks of Madagascar, was discovered by the Rev. Henry Ellis, and has been flowered by Messrs. Jackson & Son, of Kingston Nursery. It is a beautiful stove aquatic.—(Ibid. t. 5076.)

Tradescantia discolor; var. *Variegata* (Variegated Purple-leaved Spiderwort.)—Native of Mexico. The rich purple of the under-side of the leaves is very striking. "It is worthy of cultivation in every stove and warm greenhouse."—(Ibid. t. 5079.)

Datura meteloides (Nat. ord. Solanaceæ).—A fine flower, belonging to a fine order. The blossoms measure five or six inches across, of a pale pinkish-white, and have, with the dark green leaves, a very noble appearance. A native of Mexico, requiring precisely the same treatment as the Dahlia.—*Flore des Serr.* 1266.

Rhododendron calophyllum.—A strong growing kind from Sikkim Himalaya. Flowers large, white, and tinged with yellow.

Rhododendron nobile pallidiflorum.—This is considered but a pale variety of D. nobile.

Viola pedunculata.—This Pansy-looking violet is a native of California. It has showy yellow flowers on long stalks. The back of the two upper petals has each a crimson blotch thereon.

Azalea occidentalis.—A very beautiful Californian species, with large heads of light colored flowers. The habit of the plant is like that of our Southern yellow species.

Pathodea campanulata, (Nat. Ord. Bignoniacea. Syn. Bignonia tulipifera.)— A magnificent flowering tree, from Western Tropical Africa. The flowers are produced in terminal racemes of from eight to ten blossoms in each. Remarkably showy, its flowers being of a rich orange-scarlet, each being from four to five inches across. (Bot. Mag .5091.)

Juanulloa exima. (Nat. Ord. Solanacæ.)—Its foliage is remarkably different to that of any plant of that genus. Sir William Hooker says, "our astonishment was great to see when it flowered, a corolla having a good deal the form of, and excelling in size any Datura or Brugmansia. The coralla is trumpet-shaped, near six inches long, of a pale yellowish green; the leaves oval, large, glossy and firm, borne in pairs, and much resembling those of the common Laurel. (Ibid, 5092.)

The Gardener's Monthly.

PHILADELPHIA, APRIL 1, 1859.

PUBBLISHER'S CARD.

The Publisher returns his sincere thanks to the patrons of this periodical for their very liberal support, both in advertisements and subscriptions. The subscription-list has now reached a number that insures, beyond any contingency, the permanency of the publication. Some persons have expressed a doubt whether a work of the size of this can be afforded at this low rate of subscription but, by exercising the strictest economy, and by the willingness of the Publisher and Editor to work for the good of the cause ALONE, and above all, by the immense circulation the paper has already secured, the Publisher is confident that he will not only be able to continue it in its present form, but also hopes to be able still further to increase its size and attractiveness. He also begs leave to say that subscriptions have flowed in in such unexpectedly large numbers, that some errors have no doubt been made in mailing, which will be corrected whenever made known. The mail-books are now arranged, and no errors will occur hereafter.

☞ All Communications for the Editor should be addressed, "THOMAS MEEHAN, Germantown, Philadelphia," and Business Letters directed to "THE PUBLISHER OF THE GARDENER'S MONTHLY, Box 406 Philadelphia."

THE Publisher particularly requests that Advertisements should be forwarded so as to be received before the 20th of the month, or otherwise they cannot be inserted. For the March number the columns were kept open to accommodate Advertisers, until the *first*, which occasioned so much delay in the issue, that it will be impossible to do it hereafter.

CONSERVATIVE INFLUENCE OF HORTICULTURE.

ONE of the most cheering signs for the future of American society is to be found in the growing taste for rural life that prevails among all classes of our community.

Since the introduction of railroads, by which the "*rus*" has literally been transported "*in urbes*," a very large proportion of the population of our large cities have sought relief from the noise and heat of the city in the many beautiful, cool and shady retreats by which our cities are surrounded. Boston has its Roxbury, Dorchester, Cambridge, &c.; New York its Yonkers, Harlem and both banks of the noble Hudson; Philadelphia its Frankford, Germantown, and the banks of the rivers Delaware and Schuylkill; Baltimore its Greenmount, Ellicott's Mills, and the banks of the romantic Patapsco; and Cincinnati its Walnut Hills and Newport; all of them abounding in elegant and, for the most part, tasteful villas. In these "homes of taste," far away from the many temptations and the dissipation of city life, and under the refining influences of horticulture, music and social intercourse, are being trained and educated the children of our most influential citizens, who in a short time will take their place on the stage of life, and who will, doubtless, exercise a powerful influence on their "day and generation."

What influences are more powerful for good than those just named? "Flowers," says a great writer, "are not trifles, as one might know, if he would only think how much pains God has taken with them everywhere; not one unfinished; not one bearing the marks of brush or pencil. Fringing the eternal borders of mountain winters; gracing the pulseless breast of the old gray granite; everywhere they are humanizing. Murderers do not ordinarily wear roses in their button-holes. Villains seldom train vines over cottage doors."

See that beauteous and gentle form carefully nurturing and training her floral pets! In the words of Shelley:

"The flowers of that garden sweet
Rejoiced in the sound of her gentle feet;
Doubtless they felt the spirit that came
From her glowing fingers through all their frame.

She sprinkled bright water, from the stream,
On those that were faint with the sunny beam;
Or out of the cups of the heavy flowers
She emptied the drops of the summer showers.

She lifted their heads with her tender hands,
Supported their stems with osier bands;
And if they had been her own infant, she
Could never have nursed them more tenderly."

Many of our best men and wisest philanthropists are now beginning to appreciate the fact, that to cultivate a love for flowers and gardening, is to raise up one of the most powerful agents in moral reform.—At a late meeting of the British Association for the Advancement of Science, the Bishop of Ripon said, that "the Parish of Skipton, in Yorkshire, England, was inhabited principally by a rude, unrefined, and, to a considerable extent, immoral population, when the Rev. Mr. Boyd was appointed its rector. The first step he took towards their amelioration and improvement was to lay out and plant a beautiful flower-garden attached to the Rectory, to which he gave free access to his parishioners at all times. He afterwards encouraged some of them to ornament the gardens attached to their cottages, by giving them plants and seeds; and in the course of a very few years, this rude population was, by the kindly influence of horticulture and floriculture, transformed into a most orderly, gentle and refined community." We are particularly anxious that we, as horticulturists, should not imagine, that in cultivating a taste for flowers, we are ministering to a mere selfish gratification. The duty we owe to our neighbor is certainly not less than we owe to ourselves; for it is the misdeeds of our neighbor or the world at large, that interfere so seriously with our individual happiness.

Horticulturists do not understand sufficiently their position as *reformers*. Every one of true manly impulses feels it his duty to join at least some one movement which he thinks will benefit humanity.—Many, doubtless, do this more from a fondness for notoriety than from true benevolence; but the great bulk do not. Temperance, juvenile and other reformatories, all have their advocates; but the horticulturist can aid them all. To the wandering and the erring, the beauties of nature preach a perpetual sermon of innocence and purity, which cannot be lost on any one whose attention is once fairly drawn to the subject.

The trustees of the estate of Stephen Girard understood their duty in this respect, when they laid out the beautiful garden and grounds around the College for the education of poor orphan children which bears his honored name; and we want such a garden attached to all our schools, colleges, and houses of correction and reform.

Every city will soon have its public park and garden; and we hope to see the time when every local paper will have its horticultural column. Of the hundreds of papers that come to us by way of exchange, many of them have already this feature, and we hope to see their number greatly increased.

Every lover of horticulture and genuine philanthropist should feel it a duty to aid his local paper in this respect. We close this article with the noble testimony which Sir William Temple (who wrote about the year 1600) bears to the truth of what we have been urging—"For my own part, as country life, and this part of it more particularly (namely, gardening), were the inclination of my youth itself, so they are the pleasure of my age, and I can truly say, that among many great employments that have fallen to my share, I have never asked or sought for any one of them, but often endeavored to escape from them into the ease and freedom of a private scene, where a man may go his own way and his own pace in the common paths or circles of life. Although among the follies of my life, building and planting have not been the least, and have cost me more than I have the confidence to own, yet they have been fully recompensed by the sweetness and satisfaction of this retreat, where since my resolution taken of never entering again into any public employment, I have passed five years without ever going once to town, though I am almost in sight of it, and have a house there always ready to receive me. Nor has this been any sort of affectation, as some have thought it, but a mere want of desire or humor to make so small a remove."

AMERICAN POMOLOGICAL SOCIETY'S LIST.

WE present below the list of fruits recommended for general cultivation by the late Pomological Convention at New York. On reading the reports of the speeches of the members, we cannot but be struck with the extreme diversity of opinion that prevailed on nearly every subject, and that they should, therefore, be able to agree on any thing, is a sufficient proof that it is really deserving. The list, therefore, will be found very valuable to those who have not the means to expend on experiments.

FRUIT CATALOGUE OF THE AMERICAN POMOLOGICAL SOCIETY.

For General Cultivation.

APPLES.

American Summer Pearmain, Autumn Bough, Baldwin, Bendal Bullock's Pippin, Carolina June, Danver's Winter Sweet, Early Harvest, Early Strawberry, Fall Pippin, Fameuse, Gravenstein, Hawley, High Top Sweeting, Hubbarston Nonesuch, Jonathan, Lady Apple, Ladies' Sweet, Large Yellow Bough, Melon, Minister, Monmouth Pippin, Porter, Primate, Rambo, Red Astrachan, Rhode Island Greening, Roxbury Russett, Smith's Cider, Summer Rose, Swaar, Vandervere, Wagener, William's Favorite (except for light soils), Wine Apple or Hays, Winesap.

PEARS.

Ananas d'Ete, Andrews, Bartlett, Belle Lucrative, Beurre d'Anjou, Beurre d'Aremberg, Beurre Diel, Beurre Bosc, Beurre St. Nicholas, Beurre Clairgeau, Beurre Giffard, Beurre Superfin, Brandywine, Bloodgood, Buffum, Cabot, Dearborn's Seedling, Doyenne d'Ete, Doyenne Boussock, Doyenne d'Alencon, Flemish Beauty, Fulton, Golden Beurre of Bilboa, Kingssessing, Howell, Lawrence, Louise Bonne de Jersey, Madeline, Manning's Elizabeth, Onondaga, Osband's Summer, Paradise d'Automne, Rostiezer, Seckel-Sheldon, St. Michael Archange, Tyson, Urbaniste, Vicar of Winkfield, Winder Nelis, Uvedale's St. Germain (for baking).

For Cultivation on Quince Stocks.

PEARS.

Beurre Superfin, Beurre Hardy, Buffum, Belle Lucrative, Belle Epine Dumas, Beurre d'Amalis, Beurre d'Anjou, Beurre Diel, Beurre Langelier, Catillac, Duchesse d'Angouleme, Doyenne d'Alencon, Easter Beurre, Figue d'Alencon, Gout Morceau, Louise Bonne de Jersey, Napoleon, Nouveau Poiteau, Rostiezer, Soldat Laboreur, St. Michael Archange, Urbaniste, Uvedale's St. Germain (for baking), Vicar of Winkfield, White Doyenne.

PLUMS.

Bleeker's Gage, Coe's Golden Drop, Green Gage, Jefferson, Lawrence's Favorite, Lombard, Monroe, Purple Favorite, Prince's Yellow Gage, Purple Gage, Reine Claude de Bavay, Smith's Orleans, Washington, McLaughlin.

CHERRIES.

Belle d'Orleans, Belle Magnifique, Black Eagle, Black Tartarian, Coe's Transparent, Downer's Late, Early Purple Guigne, Governor Wood, Elton, Early Richmond (for cooking), Graffion or Bigarreau, Knight's Early Black, May Duke, Reine Hortense.

APRICOTS.

Breda, Large Early, Moorpark.

NECTARINES.

Downton, Early Violet, Elruge.

PEACHES.

Bergen's Yellow, Crawford's Early, Coolidge's Favorite, Crawford's Late, Early York (serrated), George the Fourth, Grosse Mignonne, Morris White, Early York (large), Hill's Chili, Large White Cling, Madeleine de Courson, Teton de Venus, Old Mixon Free, Old Mixon Cling,

GRAPES.

Under Glass.

Black Damascus, Black Hamburgh, Black Frontignan, Black Prince, Chasselas de Fontainbleau, Red Chasselas, Cannon Hall Muscat, Grissly Frontignan, White Frontignan, White Muscat of Alexandria, White Nice, West's St. Peter, Zinfindal.

Open Culture.

Catawba, Concord, Delaware, Diana, Isabella.

RASPBERRIES.

Fastolff, Franconia, French, Knevet's Giant, Orange, Red Antwerp, Yellow Antwerp.

STRAWBERRIES.

Boston Pine, Hovey's Seedling, Burr's New Pine, Longworth's Prolific, Large Early Scarlet, Hooker's Seedling, Wilson's Seedling.

CURRANTS.

Black Naples, May's Victoria, Red Dutch, White Dutch, White Grape.

GOOSEBERRIES.

Crown Bob, Early Sulphur, Green Gage, Green Walnut, Houghton's Seedling, Ironmonger, Laurel, Red Champagne, Warrington, Woodward's White Smith.

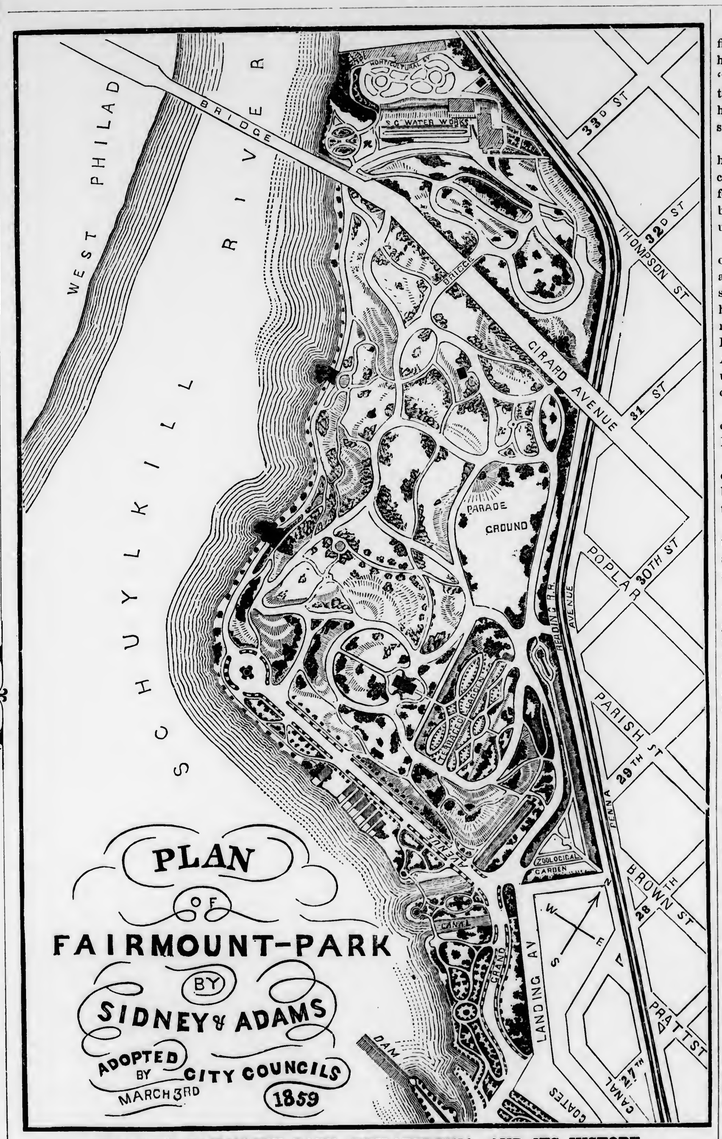
BLACKBERRIES.

Lawton's New Rochelle, Dorchester Blackberry.

GLAZED MUSLIN.

Is there not a mistake in your Specimen number in giving "a recipe for glazing muslin?" It reads—"3 parts linseed oil." I think it should be 3 pints linseed oil. In Johnson's "Dictionary of Gardening" there is the same recipe, but it reads 3 *pints* of oil, instead of 3 *parts*. C. E. K.

[THANK you for the correction. In correcting for the press, if the *sense* seems right, we sometimes forget the "*copy*."—ED.]



THE NEW FAIRMOUNT PARK, PHILADELPHIA, AND ITS HISTORY.

FAIRMOUNT PARK is at length in the undivided ownership of the citizens of Philadelphia. Nearly a quarter of a century ago its southern portion, so well known as Lemon Hill, was given over to the spoiler, and, except in the remains of groves of tulip-trees and pines—slopes of greensward and the silent flow of the river along its rocky margin, retains no vestige of its former splendor. But during these years of its decay, a great work has been accomplished, and now these fair grounds have become the domain of the people.

The ground embraced under the name of Fairmount Park is a broad, varied tract of land, beginning at Fairmount, thence extending up to Lemon Hill, and including that grand sweep of ground from the river to the railroad, continuing over Sedgely Park, an estate of nearly equal size, and so bounded by the river and railroad, reaching up to and including the grounds of the Spring Garden Water Works, terminating on the crest of a hill a few hundred feet above these works. Its situation is central, the southern portion of it being less than a mile from the centre of population.

The introduction of passenger railways afford access to these grounds from all sections of the city.

The Water Works have for many years been the pride of the city; and at all seasons of the year throngs of people gather at this favorite resort. But few strangers leave the city without a visit to Fairmount, and hence this attractive spot is widely known and remembered as one of the most beautiful and picturesque places in our country.

The name adopted for the Park is co-eval with the first settlement of the city. Mr. Sherman Day, in his "Historical Collections of Pennsylvania," says: "The name of this enchanting spot was conferred in the earliest days of the province, and William Penn had his eye, but not his heart, on it for a country-seat."

In Holme's Map of the City, published in 1683, the hill on which the basins of the Water-works is located is marked "*Faire Mount*." The land originally formed part of the Proprietary's manor of Springettsbury, and portions of it remained in the Penn family until 1787.

In the year 1770 Robert Morris purchased 140 acres of land on the river, and subsequently made a large addition to his place. Here the great financier resided during the summer months. When he signed his name to the Declaration of Independence, he retired to this sylvan retreat, then known as "the Hills," to ponder on the prospects of his country. A letter from Mr. Morris to the Adjutant-General, under date of Sunday, July 20, 1776, "from the Hills on Schuylkill," concludes as follows:

"I beg my compliments to the General. I dined in company with Mrs. Washington yesterday at Colonel Harrison's, and expect her here at dinner to-day."

The hospitable mansion of the patriot was ever open to his friends; and here, on the banks of this beautiful stream, often met the sages and heroes of the Revolution.

Mr. Morris was a merchant in the true sense of that term. The canvass of his ships whitened every sea, and the returns of his commercial ventures gave strength and power to his struggling country.

We trust some fitting emblem may be erected on the park to tell to posterity the gratitude of this generation for his services in the cause of his country. A marble gateway worthy of the place and the wealth of Philadelphia, to be known as the Morris Gate, would be a suitable monument to his memory, and should be erected by a public contribution of citizens.

After the failure and ruin of Mr. Morris, the land was divided into parcels and sold by the Sheriff in 1799. The lower portion, containing about 45 acres, was purchased by Mr. Henry Pratt, who built the mansion still standing on the grounds, and made the place one of the most elegant seats on this continent. Many of our readers will remember it as being adorned with all that a refined taste could suggest or a liberal hand supply.

The tract adjoining to the north of this, about 33 acres, was purchased by Mr. William Crammond, who erected a noble mansion, and had the grounds laid out in a corresponding style. This place was known as Sedgely Park. It subsequently became the country residence of Mr. James C. Fisher. Views of these two places were published by Mr. Birch.

In the year 1836 Mr. Isaac S. Lloyd purchased Lemon Hill and Sedgely for the sum of $312,500, and forthwith commenced the demolition of all that half a century of care had created. Noble trees were felled, out-houses overturned, lawns cut up and destroyed, and a series of docks commenced, with the view of drawing to this point the coal trade of the city. But ruin—the financial ruin of 1837—followed in the wake of all this destruction, and overwhelmed Mr. Lloyd and his project. Thanks to the completion of the Reading Railroad, the coal trade was carried to the Delaware at Richmond, and thus the city saved from the greatest calamity that could befal it: the pollution of the drinking water of a half a million of people at the very fountains from whence it is drawn. In July, 1844, through the indefatigable efforts of the late Mr. Thomas P. Cope, the city secured Lemon Hill for the small sum of $75,000.

In April, 1857, the city became the owner of Sedgely at a cost of $65,000, the balance of the purchase-money having been contributed by citizens.

The small tract to the north of Sedgely, partly occupied by the Spring Garden Water-works, was purchased by the late districts of Spring Garden and Northern Liberties, and is now vested in the city.—

The pieces of land we have here described contain about one hundred and ten acres.

The members of this Committee on City Property will be held in grateful remembrance by the citizens of Philadelphia, and we trust they may all live to see the improvement of the park completed and the people in the full enjoyment of this beautiful pleasure-ground. The plan for which the first prize was awarded, and which accompanies this sketch, is by Messrs. Sidney & Adams, and is one of eight plans offered to the Committee, all of which are described to be of the highest order of merit.

We conclude this article with a description of the first prize plan, furnished, at our request, by the successful authors. In our humble judgment, Fairmount Park is too small for a great city like Philadelphia. It is but one-eighth the size of the Central Park in New York. It should be enlarged by taking in a portion of the land on the west bank of the Schuylkill between the Wire Bridge and the bridge at Girard Avenue.

We give below the official report of the Committee on City Property to the City Councils, from which it will appear that the completion was alike creditable to all the competitors. It is a gratifying sign of the progress of a correct taste for landscape gardening, when eight parties can be found so to exert themselves for so nominal a sum as the premium offered; and that, too, in the face of great difficulty, as the city furnished nothing but the ground, each competitor making his own surveys.

"The Committee on City Property reported that they have had under consideration the improvement of Fairmount Park. Eight plans were submitted for competition, and of the eight four are possessed of striking merit. The four plans referred to were drawn, one of them by Messrs. Sidney & Adams, another by Mr. Andrew Palles, the third by Mr. Wm. Sanders, and the fourth by Mr. Edwin F. Durang. In the unanimous judgment of the Committee, the plan submitted by Messrs. Sidney & Adams is entitled to the premium ($500), and it has been accordingly selected. A majority of the Committee are of opinion that the plan of Mr. Andrew Palles is entitled to the second premium ($250), and the Committee has so awarded; but the Committee recommend an appropriation of $100 to the authors of each of the other two plans as an expression of approval of the labor, skill and taste which they display in a very high dergree."

The plan of Messrs. Sidney & Adams is an admirable specimen of landscape-gardening, both in its principles and in its adaptation to the peculiar circumstances of the case. They have kindly furnished us with it, from which we have made the annexed engraving expressly for this paper, and the principal features of which we will endeavor briefly to describe.

The boundary towards the city is to be planted with a dense mass or screen of evergreen and other trees, to shut out the view of the city. From the principal entrance, a grand avenue, half a mile long and 96 feet in width, of American Lindens, with a carriage drive of 60 feet, and walks of 10 feet on each side, separated by grass from the drive. The other carriage drives will be from 30 to 40 feet in width, and of the aggregate length of three and a quarter miles, and the walks three and a third miles, making together a distance of nearly seven miles.

The road along the river's edge will be a beautiful feature, and will be tunnelled through two large rocks and pass under the Girard Avenue bridge. A piece of ground is set apart for the Zoological Society, which has just been formed. It is well supplied with water, and very suitable for the purpose.

Another piece of ground has also been appropriated to the use of the Pennsylvania Horticultural Society, and is so located that it will be perfectly private. There is a large piece of level ground devoted to the purposes of a parade and play ground.

The park will also be profusely ornamented with summer houses, kiosks, rustic seats, fountains, ornamental bridges, boat houses, fish ponds, &c. The fine old mansion now on the place, is to be restored and devoted to public use.

We are pleased to see that but little money is to be expended in grading. The roads being adapted to the natural grade of the ground, which is beautifully diversified, furnishing a great variety of beautiful views, up and down the river.

Great attention has been paid to the selection of the proper kind of trees for planting. The plan contemplates several groups of trees, among which are those flowering early in spring, those flowering in summer, evergreens of a spiral character, dwarf bushy trees, strong growing forest trees, evergreens with large bushy heads, such as Austrian and Scotch Pine, Deciduous Cypress; trees with brilliant colored leaves in the fall, trees retaining their leaves till late in the fall, Magnolias, Birches, Oaks, Larch, and trees with variegated, colored and peculiar shaped leaves, &c., &c.

We should like to devote more time and space to the subject, as it is one of a character that will interest the majority of our readers. But we hope soon to be called on to report progress of similar undertakings in our other large cities, which have not as yet been provided with public parks.

We are pleased to see that the Councils of the city of Baltimore have recently provided the means for a Public Park, and in our Councils the first step has been taken towards laying out the Girard property in the First Ward, as a Park. This is quite a large tract of land. So the good work goes on.

AN OLD TREE.

Probably the oldest tree in the world is the great Dragon tree (*Dracæna Draco*) of the Island of Teneriffe, of which Humboldt says that "it measures 45 feet in circumference." Tradition relates that this particular *Dracæna* was venerated by the Guanchos, the aborigines of Teneriffe, as was the *Elm of Ephesus* by the Greeks, and that in the year 1400 it was as large and hollow as it is now. Its growth being extremely slow, we may be sure the *Orotava Tree* (as it is called) is of incalculable age.

The above drawing is taken from the recent illustrated Catalogue of Kew Gardens.

MOVEABLE GREENHOUSES.

The subject of moveable plant structures has of late occupied the attention of the horticultural writers in the *Cottage Gardener* and *Gardener's Chronicle*. The object is to construct a house in such a manner that it cannot be considered by the landlord as a fixture, and can be taken from the premises at the expiration of the lease. This is a matter of considerable importance everywhere. We are often surprised that vacant lots, which are frequently found even in the centre of our large cities, are not often temporarily used for horticultural purposes, and especially for keeping plants and bouquets for sale or on commission.

A few days ago, on visiting the office of our paper, after an absence of two or three days, we were much surprised and gratified to find that on a small vacant lot immediately adjoining, a very neat greenhouse had been erected and filled with a variety of plants in full bloom. On inquiry, we found that the enterprising proprietor had for more than a year occupied a lot in the immediate neighborhood, and on its being required for building purposes, he had taken down and erected his house in a couple of days! We hope to see his example followed by others.

A TREATISE ON THE THEORY AND PRACTICE OF LANDSCAPE GARDENING.

By the late A. J. Downing, Esq. Sixth Edition. With a Supplement by Henry Winthrop Sargent. New York: Published by A. O. Moore & Co.

The appearance of this edition of a work which has been and is still considered a standard authority on American Landscape Gardening, has been anxiously looked for by the horticultural community.—Although our expectations were high, yet they are more than realized, indeed, from the large number of new illustrations introduced in the body of the work and the excellent Supplement by the editor, adding fully one-third to the size of the volume, profusely and elegantly illustrated, and replete with most valuable information; it may almost be called a *new* work, and should entitle it to a place on the library-table of every country gentlemen, and even of those who possess the former editions, and should be carefully read and studied by every one who contemplates the formation of a villa residence. We will only allude here to some of the most important and salient points in the work.

And first we wish particularly to notice the beauty and faithfulness of the *portraits* of a large number of the finest specimen trees in different parts of the country. These masterly wood engravings are from drawings by A. O. Moore, Esq., whose facility for obtaining correct likenesses, and for securing the very *expression*, as it were, of a tree, is perfectly marvellous. No one that has not a love of trees could hope to attain such success. There is not a single portrait in the whole gallery that would not be instantly recognized by any one acquainted with trees.

The European Linden at Presqu-ile; the Weeping Larch at Wodenethe; the Large-leaved Magnolia at Laurel Hill Cemetery; our old friend and neighbor the Silver Fir at Dr. Johnson's, Germantown; the Cedar of Lebanon at Woodlawn, near Princeton, N. J.; the Weeping Elm, Dwarf Horse-chestnut, Weeping Juniper, Pinus patula or Fountain Pine, and Torreya taxifolia at Wodenethe, and the Scaled Juniper at Woodlawn, near Princeton, N. J., are particularly fine and correct.

The views in the grounds at Wodenethe are also from the same skilful pencil. In addition to these there are several exquisitely executed steel engravings,—views of celebrated country-seats,—amongst which are: a view in the grounds of Blythewood, Dutchess County, N. Y., the seat of Robert Donaldson, Esq.; Wodenethe, at Fishkill Landing, N. Y., the seat of Henry Winthrop Sargent; Wellesly, near Boston, the seat of H. H. Hunnewell, Esq.; a view in the English Garden, and one in the Italian Garden, of the same place, and a view of the entrance to Llewellyn Park, Orange, N. J., with ground-plans of the same. A plan and several views of Central Park, New York, and a number of other beautiful illustrations are also introduced.

We now come—though last, not least—to the more *practical* part of the work, or rather of the Editor's Supplement, viz: that which treats of arboriculture, and particularly of the editor's speciality, the evergreens and conifers. It is well known that the indefatigable editor has for some time been engaged in collecting from all parts of our widely-extended country the experience of many of our most intelligent arboriculturists as to the hardiness and adaptability of the newly introduced evergreens to the climate of different localities. The result of these inquiries, in addition to the extensive experience of the editor, is embodied in a "Tabular View, showing the comparative hardihood of the new Evergreens in the United States." This Tabular View occupies six pages, and gives the experience of persons in the following places: Fishkill, N. Y.; Boston; Newport; Philadelphia; Washington; New York; Clinton, N. Y.; Natchez, N. Jersey; Flushing, Long Island; Augusta, Georgia; Columbus and Cincinnati, Ohio; and Rochester, N. Y. This "Tabular View" is preceded by copious notes and descriptions of all the newly introduced ornamental, deciduous and evergreen trees and shrubs, the whole forming a fund of valuable information in a condensed and useful form, particularly adapted to the wants of the amateur.

We feel strongly tempted, for the benefit of our readers, to extract a list of those evergreens which are found to be perfectly hardy in *all* localities, but think we would scarcely be doing justice to the enterprising publishers.

The terms on which the work will be furnished may be ascertained by referring to our advertising columns. We had marked some passages in the work where we felt constrained to differ from the Editor; but shall in this instance adopt the suggestion of Horace:

> "Where frequent beauties strike the reader's view,
> We should not quarrel with a blot or two."

We may say, however, that the few errors are chiefly, not so much the fault of the editor, as of parties whose opinions he has evidently adopted.—The chapters on *Thuja* and *Libocedrus*, for instance, are any thing but clear. The genera of Biota, Thuja, and Libocedrus are so well marked by their fruit, that where these can be studied, there need not be two opinions respecting them. The first has bony seed, without any or very small wings, and mostly of a full and egg-shaped form. Thuja has flat seed, covered only by a thin membrane, and nearly surrounded by an orbiculate wing. Libocedrus has seeds so very unlike these, that they might rather be taken for seeds of a *Tulip tree*, than an arborvitæ. They are of a long slender shape, and terminate in a long wing, precisely in form like that of a Tulip poplar. Libocedrus Craigiana and L. decurrens may be the same thing; we have never had the opportunity to satisfy ourselves practically, but it is certainly an error to consider them as synonymous with the *Thuja gigantea* of *Nuttall*. Mr. Nuttall has figured his own plant, (See Smith's Edition of Michaux' sylva,) and gives his plant as syn. with *Thuja Menziesii*, and partly with *T. plicata*. From this plate any one familiar with the seeds of *Libocedrus* can see that Mr. Nuttall's plant is not one, but really a *Thuja*. Some inaccurate nurseryman has probably sent out a Libocedrus for Thuja gigantea, and that has probably originated the idea that Nuttall did not actually know what he was doing when figuring Thuja gigantea.

We also notice that Mr. Sargent has given a genus as *Washingtonia*, which we do not find described in any botanical work extant. There can be no objections to calling "the big tree" the *Washington tree;* but to give a tribe of plants a new botanical name, without the slightest pretence that it differs from others already described, is only creating the very confusion, animadverted on in the case of the Libocedrus.

Nationalities should not be allowed to interfere with well-established scientific laws. Mr. Sargent has, however, given the botanical name as a *synonym*.

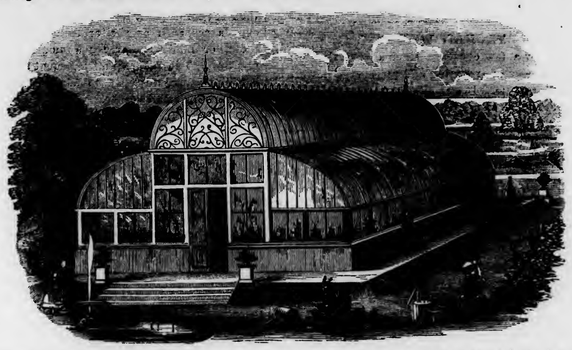
There is one subject which we are glad to notice in connection with this work. Mr. Downing has left (unsatisfied, we may say) heavy claims on his country and the horticultural portion in particular. This work is published for the benefit of his family, and we believe Mr. Sargent's time has been devoted freely on their account. The Downing testimonial was but a very small instalment of the honors so justly his due. No more *substantial* tribute could be offered to his memory, than an extensive sale of this most beautiful and the most useful work on the subject ever published in this or any other country.

ISABELLA GRAY ROSE.

We recently saw in the prettily-arranged greenhouse of Dr. Thomas at Oakland, Chester County, one of the handsomest flowers of this variety we have ever seen. It evidently is a good kind for the care required for pot-culture.

ORNAMENTAL GREENHOUSES.

The generality of plant houses are almost entirely devoid of architectural beauty, partly from prudential considerations and partly from an idea that utility may be sacrificed in the attempt to change the ordinary stiff and rectangular shape into one of more graceful proportions. It may be desirable in some cases, particularly at country places of some pretension to elegance, and where the difference in cost is not an important consideration, to make this attempt, and as a hint, we introduce a drawing taken from the Illustrated Catalogue of Messrs. Cottam & Co., 2 Winsley Street, London.



This strikes us as combining utility with grace to a very remarkable degree. This was, no doubt, intended to be built wholly or principally of iron, which will not answer in our variable climate; but we see no difficulty in executing it in wood in the same way that the roofs of curvilinear vineries are constructed.

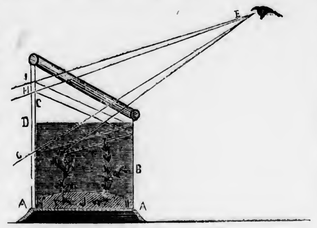
We have often wondered whether it was practicable to make the sash bars of curvilinear roofs of wood steamed and bent in the same way that the fellies of the wheels of light carriages are made. It may be worth the trial.

DWARF PEARS.

Many of our correspondents have written to us commendatory of both the tone and matter of Mr. Bright's article on the dwarf Pear, in our last number, and some think as good reasoning might be advanced for the other side. For ourselves we may say that we know of dwarf Pear trees many years planted that are a decided success, and others again that are miserable failures. Pray let us have the "why and because." Our columns are open to *facts* from any party.

NEW AQUARIUM.

Aquarium is a term by which is denoted a species of parlor toy which, whether originating on this or the other side of the Atlantic, is probably familiar to most of our readers. These are glass boxes of from six to sixty cubic feet capacity, containing sand or gravel, and aquatic plants and animals, the latter so proportioned in their consumption and supply of oxygen as to require no change of the water. A new style, just patented by Elijah Davis, of New York, appears worthy of some attention, and is shown in section in the annexed engraving:



A is the bottom, of cast iron; *B* the front, of ordinary transparent glass, and *C* a back plate, which is considerably higher than *B*, and silvered on the back side, the silvered surface being protected by the additional plate, *D*, in any ordinary manner. A singular effect is developed in this invention, such as is not commented on in any of the familiar treatises on optics. This is the strong reflecting property either of the front plate, or of the vertical water surface in contact therewith, in its action upon light received from within. To an eye situated at *E*, a fish or other object at *F* will—neglecting the refraction of the top surface—be seen direct in the line, *E F*, and also reflected in the line, *E G*. This is but the ordinary effect of a mirrored back, as employed in cabinets and show-cases. The novelty lies in the additional reflections represented, by which the object is seen in lines *E H* and *E I*, the light being reflected by the front plate *B*, with such distinctness, that the images seen in the lines *E H* and *E I*, are very nearly equal in strength to those seen on the lines, *E F* and *E G*. The effect is to triple or quadruple the apparent size of the vessel, instead of simply doubling it, as is the effect when mirrors are used in vessels not containing water. The images, *H* and *I*, are suddenly lost when the eye is elevated or depressed beyond a certain range, and and are never seen when the aquarium is not properly filled with water.

The same gentleman has made it practicable to cultivate, in this way, aquatic vegetables which require soft and rich mud instead of clean sand and gravel. The means of accomplishing this are also shown in the above engraving. *J* is the bottom, and *K* are the sides of a shallow vessel, which is capable of being removed at pleasure. The earthy matter is deposited therein, and the plants properly placed, after which the surface, except at the points where the plants emerge, is covered with a thin coating of plaster (calcined gypsum), and while the coating is in a soft state, the whole surface is sprinkled, or otherwise studded, with coarse sand and gravel. The coating hardens rapidly, is insoluble in the water, and protects the soft earth beneath from any disturbance. It is impracticable to use mud without these precautions, as the action of the hands in removing any of the finny or shelly inhabitants, or the pouring of water into the vessel, would render the water turbid.

EDGING FOR WALKS.

For formal or geometrical gardens in England an ornamental edging of earthenware is much used.—We annex a pattern taken from an illustrated cata-

logue of a potter in London, which we think might be introduced with advantage into this country.

The price of this pattern is but six pence, or twelve cents per running yard, or four cents per foot, which is about the price of box-edging, and saves the labor of clipping. Our potters could, no doubt, furnish it if it were ordered.

FLORAL WREATH.

We saw a few evenings since a very simple and beautiful way of arranging and preserving flowers in a drawing-room. It was in a tin box, made in a circular shape, as shown in the cut annexed.

It was brought from Berlin, Prussia, where they are much used. The box is about 2 inches deep and 1½ inches in width, and about 15 inches in diameter, although it can be made of any size. The tin box is painted green, and is kept nearly full of water. When the flowers are arranged in it, it presents the appearance of a beautiful wreath. A lamp, gas-burner or statuette, can be placed in the centre of it.

For the benefit of our city readers, we will state that they can be obtained of Mr. Williams, No. Market Street, but they can be made by any tinsmith.

Questions and Answers.

I would like to ask, under the head of "Questions and Answers," whether all the following will be desirable to buy for bedding-out plants:—Abutilon striatum, Buddlea Lindleyana, Bouvardia, Clerodendron infortunatum, Cuphea platycentra, Ruellia formosa, Plumbago rosea, and P. Larpentea, Zauschneria Californica, Torenia Asiatica, Scutetellaria ventenatti, and Asclepias. Are all these desirable, or would there be much choice among them?

[Plumbago rosea is a winter flowering plant, and not calculated for a bedding plant. Torenia Asiatica, neither, does well. Any others in the list flower well in the open border in summer. Your other questions are too late in the season to be of service to you.]

America Rose.—We have received specimens of this new kind, and will candidly say that we think better of it than we did after reading its advertisement, which, in our opinion, was "overdone." The Rose belongs rather to the yellow section of Noisettes than to the white. From the specimens sent, we are inclined to think the Rose a decided acquisition. It has the form and good qualities of *Lamarque*, with something the color of *Sombrieul*, not quite so light as the last.

Blooming a Laurestinus.—I have a fine healthy Laurestinus nearly four years old, which, though in perfect health, has never budded.

H. W. Harris.

[Turn it out of the pot into rich soil in the open air all next summer, repot in the fall, and it will bloom freely next winter.]

Is there any infallible test, apart from its appearance, by which the eatable Mushroom may be distinguished from the poisonous varieties?

A. Thomson.

[We should mistrust the best descriptions. The smell, and the bright pink color of the lamellæ or plates composing the under surface, distinguish it sufficiently; but these characters are best learned by experience.]

Evergreens—*J. T. Blois.*—In latitudes where the winters are mild, say where the thermometer does not fall below 15° or 20°, August and September is the best time to plant. In colder climates they do best planted just before they begin to grow, say April. *The climate* has more to do with success than the season. We often hear of successful autumn planting in the coldest climates; but this is not owing to their season of planting, but some other favoring circumstances, such as shelter from cold winds, good roots, or mild weather for a month or more after planting. The "general management of Evergreens" is too extensive a subject to admit of a satisfactory reply in this small corner.

Red Cedar Seed—*Jos. Harris.*—Sown now will not probably come up till next season. It will be best to put them in a box with plenty of sand, and sow in a border of light rich soil next Spring. Seeds of Junipers will remain often three, and sometimes four years in the soil without growing, if once kept till Spring. If sown in the Fall soon after they ripen, some of them come up the next Spring.

Forcing Strawberries—*D. M. Lee.*—Should none of our contributors "feel moved" to give an article on this subject, which we hope they will do, as our "hands are full," we will give you one ourselves before the season arrives to get ready.

Shurtleff's Seedling Grape—*Several Correspondents.*—We believe this kind is now entirely out of cultivation.

Western Correspondence—*James Smith.*—Please do.

Rose and Grape Cuttings—*Novice.*—It will be your best plan to take them off in the fall, cut them into lengths required, bury in the soil till Spring, and then set out early. You may *try a few* in your hotbed this Spring. You will learn more from your failure than all we can tell you. Only those of much experience succeed in this way.

Sweet Potatoes—*W. Groom.*—They are preserved well packed in dry sand in cellars secure from frost. They grow best in warm and rich sandy soil. To propagate, the roots are started like Dahlias, in a hotbed, and the sprouts, when a few inches high, taken off and set out like Cabbage plants, with a dibble. The yield per acre is little inferior to that of the common Potato.

Dwarf Pears—*J. S. L.*—1. I have a number of dwarf Pear trees, and as generally complained of, they fruit but poorly, despite mulching, pinching, trimming, superphosphates, bone-dust and root-pruning. A few pears are produced on some of the trees—abundance of blossoms on all. The trees grow finely; some of them are from 12 to 14 feet high, with trunks from 3 to 5 inches in diameter at the surface of the ground; soil heavy clay, and until drained, wet. My Bartlett trees are small, say from 5 to 6 feet high, and these and some large Glout Morceau and Louise Bonne I propose to remove to a cold grapery. I desire to learn what proportion the tubs or boxes should bear to the mass of root, and what kind of soil you would recommend they should be planted in?

2. Could you give us practical directions for using glue in bark beds, and instruct us how to regulate the temperature for the growth of Tomato plants? I have not been able to find Dr. Uhler's article in the first number.

3. What treatment do the seeds of the Passionflower (Passiflora incarnata) require to cause them to germinate? We have not succeeded in growing them.

[1. All fruits in tubs require only as much room as the roots can be conveniently got into. If your Pear trees *grow finely* and *bloom well*, we can only attribute their not bearing to external causes—perhaps a late spring frost.

2. We shall have something further to say in reference to Dr. Uhler's valuable discovery in our next. The article was published in our "Specimen number," issued in October last. A communication on this subject will be found in another column.

3. Passiflora seed was probably not fully matured. There is no difficulty in raising them in a gentle hotbed when they are quite perfect.]

Catalogues, &c.

John Saul, Washington, D. C. Fruits, Trees, Roses, &c. Got up without any pretension, but very full and complete. We notice a new cherry in it—*Empress Eugenia*—"like May Duke, but earlier, larger, and comes into bearing sooner."

George B. Deacon, Burlington, N.J. Trees, Shrubs, &c. Nineteen years established. The catalogue contains a select list of the most popular kinds.

Townsend & Dutton, Collinsville, Ill. Fruit and Ornamentals. Principally the former; but the descriptive list of Roses is pretty extensive.

A. Braman & Co., Ithaca, N. Y. Sheet catalogue principally of Fruits.

James Fleming, Toronto, C.W. Garden and Flower Seeds. The directions for sowing seeds for this latitude we have read with much interest. Mr. F. says, "A good remedy for the Turnip Fly is to steep the seeds one night in train oil." We have found oily matter of any kind useful against most insects.

John Garnet & Co., St. Louis, Mo. Implements, Seeds, Trees, &c. A beautiful catalogue of 80 pages. The descriptions are unusually full and clear.

J. H. Corning, Kinderhook, N Y. Sheet catalogue,—mostly Trees, &c., but also containing prices of "Ericas, Azaleas, Camellias, &c."

W. Mann, Bangor, Maine. Trees from the woods.

James Pentland, Baltimore, Md. Catalogue of Roses, filling 13 closely-printed pages. Mr. Pentland makes Roses a "speciality."

Peter Henderson, Jersey City. Roses, Dahlias, &c. Mr. Henderson has the honor of being the first paid subscriber to the *Gardener's Monthly;* and, to judge of this catalogue, we presume his motto is, "first in all things." By the way, is not Salvia splendens Gordonii of New York the same as S. s. major of Philadelphia?

John Rutter, West Chester, Pa. Abridged catalogue of Trees, &c.

Isaac Jackson & Co., Jennerville, Pa. Fruit and Ornamentals. Formerly the stock of Thomas N. Harvey, the reputation of which is well known and well earned.

L. Menand, Albany, N. Y. This demands more than a passing notice, as we doubt whether a similar catalogue is published in the States. Mr. M. offers no less than 80 species of Ferns, 40 species of orchids, 126 species of succulent plants, mostly Cactaceæ; and, oh! ye who deplore the inability of United States cultivators to grow heaths, no less than 126 Ericas! Here you may find Sikkim Rhododendrons and any other *rarity* you want, no matter whether as old as *Telopea speciosissima*, or as new as *Farfugium grande*. We pity those who are sending to Europe for novelties,—but, Mr. Menand, why do you not advertise? Why will you keep your light under a bushel?

Walker & Co., Roxbury, Mass. A very handsome catalogue of 32 pages; and from its well-filled contents, congratulate the Messrs. Walker on their first appearance.

Dexter Snow's Verbenas, Chicopee, Mass. Mr. S. grows nothing else; and to say that this list is not inferior to former ones, is to give high praise.

C. M. Saxton, New York. List of Horticultural books, and prospectus of the Horticulturist for 1859. We often have inquiries for horticultural works,—those in need should procure one of these.

The Rural Annual of the *Genesee Farmer*, and *Rural Register* of the *Country Gentleman*, both contain matter of much interest to every cultivator.

H. A. Dreer, Philadelphia. Descriptive Catalogue of Flower Seeds. We had some idea of giving hints for the culture of the chief tribes of annuals, but Mr. Dreer has in this list saved us the trouble.

Edmund Craig, Cheviot, Ohio. Sheet catalogue of Fruit trees, Grape cuttings, &c.

R. Buist, Philadelphia. Hardy Trees and Shrubs. In some of our first notices of catalogues, we regretted that the names of trees in some of them should be so inaccurately spelled. We may take this catalogue as a standard of accuracy, and in variety and extent it has few, if any, superiors.

Barnes & Washburne, Dorchester, Mass. Descriptive catalogue of Flower Seeds. The chapter on sowing Calceolarias, &c., is worth paying for. There are 600 varieties seeds of offered, and the public should consider it a privilege to have such a catalogue prepared for them.

G. G. Curtiss & Co., Maysville, Ky. We are pleased to receive this fine and accurate list from this reliable firm. We hear little of the "trade" from Kentucky, but this issue makes up for all.

M. B. Batcham & Co., Columbus, Ohio. Wholesale list of Fruit and Ornamentals.

Statistics of American Agriculture. An Address, &c., by John Jay, Esq. New York: D. S. Appleton & Co. Agricultural and Horticultural statistics are of incalculable utility to every one engaged in the pursuit of the business. The present pamphlet is a long way in advance of any similar work that has come before us, and should have an extensive and careful perusal.

W. H. Starr & Co., East New London, Conn.—Catalogue of Nursery stock. These grounds are under the management of Mr. Henry Chitty, well known as one of our best horticulturists.

A. Loomis, Batavia, N. Y. General Nursery stock. In the list of Roses we notice many of the newest and best kinds.

T. G. Yeomans, Walworth, N.Y. Trees and plants. Mr. Y. is well known as a successful cultivator of dwarf fruit, and the directions given in this catalogue will be found very useful to those who have not succeeded so well.

E. C. Frost, Havana, Schuyler County, N. Y. A handsome illustrated quarto advertising sheet, called the *Horticultural Advertiser*. A very full catalogue of all kinds of trees and shrubs, but particularly of fruit.

Premium List of the Rhode Island Horticultural Society, Providence, for the exhibitions in June and September.

A. O. Moore & Co. 140 Fulton Street. Catalogue of Agricultural and Horticultural books; it embraces every thing new and useful on these subjects.

Obituary.

DAVID TOWNSEND.

When a veteran in the cause of Human Improvement passes away, it well becomes the aged to bear testimony to his worth, and the young to profit by his example. When the wise and good devote a long life to the generous aims, and elvating pursuits of the community in which they move, their career leaves a bright page in the history of our race. Of such was the lamented friend, whose mortal remains we have recently followed to the tomb,—whose memory we all fondly and gratefully cherish.

David Townsend, son of Samuel and Priscilla Townsend, was born in village of Pughtown, Chester County, Pennsylvania, on the 13th December, 1787.

He was brought up to the business of Agriculture, on his father's farm, and received a plain English education, including some elementary mathematical instruction, at the country school of the vicinage. Possessed of an intelligent and active mind,—and being withal an excellent penman,—he was appointed in 1810, a clerk in the office of the Register and Recorder of Chester County; which appointment led him to reside in the borough of Westchester, where he continued (with the exception of a year on the paternal farm) during the remainder of his life.

On the establishment of the Bank of Chester Co., in 1814, David Townsend was chosen one of the Directors, and served from November of that year until November, 1816.

He received the appointment of Cashier on the 1st of October, 1819; and the Bank continued under the sagacious management of the new Cashier for nearly the third of a century, with unparalleled success.—His resignation, in 1849, was induced by an accidental injury to the brain, which finally disabled him, and caused his death.

In all his varied pursuits, David Townsend was eminently a practical man,—ingeniously and successfully adapting the requisite means to the end proposed. To unite the useful with the agreeable, was his constant aim.

David Townsend was one of the Founders of the Chester County Cabinet of Natural Science, in the spring of 1826; was the faithful Secretary and Treasurer of that interesting Institution from its origin until the failure of his health; and was at all times one of the most active, public-spirited and valuable contributors,—whether to the Treasury, the Museum, or the Library. About the time the Cabinet was organized, a taste for Natural History was decidedly manifested by several of the members,—among whom Mr. Townsend was ever prominent. He soon, however, had his attention directed to *Botanical* studies, and was ever after distinguished for his devotion to "the amiable Science." The discriminating eye, and habits of close observation, so important in a Bank officer, were equally available to the Botanist, and quite germain to the investigations of *genera* and *species*. The plants of Chester County, and the surrounding districts, became familiar acquaintances, and were duly arranged in his Herbarium. His aptitude and pains-taking skill in preparing specimens, were very remarkable, and led to a delightful correspondence with those eminent Botanists, Dr. F. Boot of London, and Sir William J. Hooker, formerly of Glasgow, Scotland, now Director of the Royal Gardens at Kew. The last named gentleman, writing from Glasgow (while Professor of Botany there) to a friend in West Chester, in March, 1833, says: "I thank you a thousand times for introducing me to the correspondence of David Townsend. His copious and beautiful specimens have delighted me." Sir William—whose contributions flowed in on him from every region of the globe, subsequently declared, that the handsomest specimens he ever received were prepared and sent by *David Townsend of West Chester*, and *Professor Short of Kentucky*.

In the latter end of 1833, a genus of plants, allied to the Asters, was named Townsendia,—in compliment to David Townsend (who had done much to elucidate the characters of that family). The genus was established and published by Sir William Hooker, with a figure, in his splendid work, the Flora of British North America,—to the description of which he subjoined the remark, that Mr. Townsend, having imbibed an ardent love of Botany, had devoted his leisure hours to the science with eminent success.—The plant, adds Sir William, "is peculiarly worthy of bearing his name, because he has studied and ably discriminated the numerous Pennsylvanian species of the allied genus *Aster*." The Townsendia was first collected on the banks of the Saskatchawan, in latitude 53° North, by Doctor Richardson, the intrepid and hardy Botanist who accompanied poor Sir John Franklin, in one of his hyperborean expeditions.

Five species of the Townsendia are now known, and described in Torrey & Gray's North American Flora. They are all found along the streams which rise on the eastern slope of the Rocky Mountains; and while those Alpine beauties shall continue to grow, they will attest the merits of our Chester Co. Botanist, and be perpetually associated with his honored name.

When the Cashier's feeble health compelled his resignation, the Directors of the Bank proclaimed their appreciation of his long and faithful services, by presenting to him a pair of Silver Pitchers, with an appropriate inscription; and around that inscription was the delicate and significant accompaniment of engraved representations of the Townsendia.

W. D.

Mr. David Low, Professor of Agriculture in the University of Edinburg, has recently died, at the advanced age of 73. Mr. Low was well known as one of the foremost in advancing the science of Agricultural Chemistry to its present high position.

Our friend Thomas Affleck, of Mississippi, came near occupying a place in this department of our Journal, having left the steamer "Princess" but a short time before the terrible explosion of her boilers on the Missisippi. All of our readers will congratulate him on his good fortune.

Domestic Intelligence.

Foreign Grapes in the Open Air.—The *Montgomery Ledger* says:—Ten or eleven years ago, a resident of this place, being so much attracted by the display of grapes among his friends in Germany, whom he was visiting, made arrangements to have some "cuttings" sent to him by express in the appropriate seasons. They came to hand. One of these cuttings was given to a gentleman now resident here, and was planted in his yard. It grew and was carefully watched, as he expected to "make his own raisins." The vine has never mildewed. Last summer our attention was called to a sample bunch, which we were informed weighed about 12 ounces.

Seed Trade of Boston.—The last issue of the Boston *Journal* states that the seed trade of that city amounts to three millions a year. This includes grass and grain seed. Among the sales are ten tons of turnip seed, and the same amount of beet seed.—In the small article of mignionette, five hundred pounds are required to supply the annual demand.—*R. N. Yorker.*

Rats.—An exchange says:—I tried the effect of introducing into the entrance of their numerous holes, or runs hiding places small portions of chloride of lime, or bleaching powder, wrapped in calico, and stuffed into the entrance holes, and thrown loose by spoonfuls into the drain from the house. This drove the rats away for a twelve month, when they returned, to it again treated in the same manner, with like effect. The cure was most complete. I presume it was the chlorine gas which did not agree with their olfactories.

Sand for Propagating.—P. Henderson says, in the *Country Gentleman*:—The color or even the texture of the sand for propagating we attach very little importance to; the kind usually used by us is common building sand mixed with a little yellow loam, but we have tried soils and sands of all colors and textures with the same success, convincing us long ago, that that has got little or nothing to do with the successful propagation of soft-wooded plants.

Grape Culture in Canada.—One of the most interesting articles on foreign grapes that we have lately read, was by Mr. John Gray, of Toronto, in the *Canadian Agriculturist*. Of the history of the grape in Toronto, he says:

"I believe the credit of having erected the first cold vinery in Toronto or its neighborhood, and of introducing a choice collection of European grape vines, belongs to our ex-Sheriff, Wm. B. Jarvis, Esq. Subsequently there was one erected at the Grange; and I believe the grapes from those two vineries have received two-thirds of the prizes awarded at our exhi-

bitions for the last ten or eleven years. The following was the system adopted in the formation of the borders:—The soil (which was a loamy clay) was excavated to the depth of three feet, and fifteen feet wide; there was a stone drain made along the front, four feet deep, and continued to where there was a good outlet for the water; the bottom of the border had an inclination towards this drain; there was a stratum nine inches deep, of small stones and brick rubbish, laid over the bottom of the border; there was then a layer of fresh turfy loam, from an old pasture, laid over this grass side down a layer of well-rotted stable-yard manure, then alternate layers of the best of the soil that was taken out of the border, and manure, lime, rubbish, ashes, and thirty bushels of bone shavings, from a comb factory, finishing off the surface with a good layer of well-rotted turfy loam. The vines were planted in the month of May in the borders in front of the house on the outside, and introduced into the house underneath the front sill; the surface of the soil over the roots was covered with a layer of loose stable manure, and liquid manure liberally applied throughout the growing season."

Speaking of the mildew, Mr. Gray says:—"If mildew should make its appearance on the vines, the following is an infallible cure for it—Take a peck of fresh lime and 1 lb. of flour of sulphur, put into a tin gallon vessel, place it in the vinery, and close up the house, then pour water sufficient to slack the lime and keep the sulphur from burning; a steam will arise from this that will cover every part of the vine and fruit, and will stop the disease at once; the vessel may be filled with water afterwards, and let remain for a night, the next morning the clear water may be poured off into an earthen jar and kept for use. The vines may be syringed with one quart of this, mixed with two gallons of rain water two or three a week, if necessary. I have never known this to fail."

We allude to this preventative principally because we have seen it stated by a correspondent of an agricultural paper that this remedy destroyed insects, mildew, and—the *plants* alike. We think there must be some mistake. To test it ourselves, we took some violets, salvias, and other plants infested with red spider, put them under a close packing box, and "started" the lime and sulphur. They remained forty eight hours there but *neither* plants nor insects suffered. We hope further experiments will be tried and reported there must be "*something in it*" to produce such contrary experiences.

Of the cost of vineries in Canada, Mr. G. says:

"Houses for growing the vine can be erected at a cost of from two to three pounds currency per running foot, and may be either lean-to or span roof,—the lean-to houses are the warmest, they should have a southern aspect. A description of one lately erected at the residence of Dr. Gwynne, may answer for all; the dimensions are: length, 72 feet; width, 12 feet; height of the back wall, 12 feet; front, 3 feet, from the sill to the plate; the sashes in the front are in pairs, and slide past each other; the top sashes are in pairs also, arranged with a double groove in the rafter, so that they can slide free of each other; the rafters are 3 feet 6 inches apart; the sills are placed on brick pillars 6 feet apart; the studs in the back wall are 3 feet apart, and built in with bricks; there is a shed at the back that protects the wall. There is no necessity for having glass in the front of the vinery; it only gives a better appearance to the house, but is no better for the vines."

By the system of fixed roofs, now going up everywhere about us here, vineries could be erected by our Canadian friends, for one-fourth this cost; and equally strong, beautiful, and to the purpose.

We differ from Mr. G. about the use of glass in the front of the vinery, and may have something to say on this point some day.

Baked Sweet Apples.—Wash well the appples; place them in a pan with a very little water, that the juice may not burn, if they are to be cooked in a brick oven; then put the apples in a jar, cover them close, and bake them five or six hours.—*Or. Farmer.*

Foreign Intelligence.

[From Der Zustand der angepflantzten China-baume auf Java von Franz Junghuhen.]

QUERCUS FAGIFORMIS, OR BEECH OAK.

We now left the coffee plantations (in Java) and entered the primitive forest, silently riding along under the leafy roof of 100 different trees, but mostly of Oaks and Chestnuts. Of the former I counted ten species, evidently pseudomolucca, pruinosa, polyneura and helacarpa; of the latter two, argentea and tungunut. Their mighty branches were all over thickly cushioned with mosses, ferns and orchidæas. The first impression of this forest was silence, as you involuntarily would yield to silence when going from a sun-lit street into a lofty Gothic cathedral.

Getting up to higher ground, we found that the number of different trees diminished in the same ratio as we ascended. In the region of 5400 to 6400 feet above the level of the ocean the forest consisted pretty much of only one kind, the Kiara anak, as the tree is called in the Sunda language. This tree is easily distinguished, as there is no other tree in Java of a similar appearance. Its great feature is the roots, which rise above the ground in a circular line. According to the age of the tree the diameter of this line varies from 3 to 10 feet. Twisted, gnarled, and interlaced in a thousand ways with each other, these roots rise from 5 to 10 feet, in the shape of a bell; then unite to form the basis of the trunks, which rise on this basis, from three to ten in number, to a height of 50 to 60 feet, taking a somewhat diverging direction, and finally forming a vast crown of foliage.—This bell-shaped conglommeration is hollow. You might say it is a vault, its arched ceiling forming the basis of the trunk. In old trees these vaults are large enough to admit half-a-dozen persons and allow them to make themselves at home in it, with table and chairs. Generally you find among this mass of roots one or more splits or clefts, which need but widening with the axe to make an entrance. The exterior of these roots is thickly covered with ferns and mosses, and from amongst these there rise a number of young Kiara anaks, grouping like children round the colossal parent-trunks.

This most remarkable tree is a species of Oak, not yet described, and from the peculiar form of its fruit, the least typical of the genus. I have called it *Quercus fagiformis.*

[There has not yet, to our knowledge, appeared an English translation of this work, but we invite to it the attention of those of our readers who can read German, as it abounds in interesting matter.—It forms another worthy link in that chain of travels of scientific Germans, such as Barth, Vogel and others.—Ed.]

[Translated from the Botanische Zeitung.]

SOMETHING WHICH BOTANIC GARDENS MIGHT DO.

BY VON SCHLECHTENDEL.

M. J. Decaisne is now for several years *Professeur administrateur charge de la culture* in the Jardin des Plantes, in Paris. This institute is not merely a botanical one, but it has to cultivate ornamental plants, and such as are economically important; the latter including the whole department of fruit. There it is M. Decaisne's business to control and register experiments, &c. The confusion in the numberless varieties of fruit led him to publish his work, "Jardin fruitier du Musée," the first numbers of which have apppeared. He proposed to describe in it the kinds and varieties of our fruit trees, and to find characteristics, if possible, specific ones, which determined the kinds better than those taken from the shape, color and flavor of the fruit. Can those small globular fruits of certain wild kinds of Pyrus be traced back to the same original kind as those enormous Belle Angevine, Bon Chrétien d'auch, weighing four pounds and more? That question he wants to solve.

Now, such a thing as a common origin is possible, but the test and the proof is wanting and difficult to furnish. M. Decaisne, in examining cultivated pears, could easily distinguish two normal forms; one having the flower-leaves (petals) *flat, elliptical, and standing at a distance from each other;* the other *wide, rounded off, concave like a shell,* and *covering each other's edges.* But did these characteristics always coincide with the characteristics of the growth of the tree and of the shape of the fruit? Nobody ever dreamt of such an investigation. This is the task for scientific fruit-growers or botanical institutions. As a way to do it, M. Decaisne recommends, from his own experience, the cultivation and artificial crossing of fruits to be carried on through several generations. He instances the different kinds of the species of *Isatis,* which, after experiments continued through a term of three years, all fell back into *Isatis tinctoria. Tetrapoma,* one of the cruciferea from Dahuria, of excellent fruit, by cultivation gradually got a fruit like *Camelina.* Mr. Naudins' monography of *Cucurbitaceæ* proves that the numberless kinds of melons are to be reduced to a few kinds, although some kinds are such strong varieties, and although secondary shapes get constant and would lead you to consider them true kinds. I will add to these *Capricum* and *Lycopersicum.* Systematic cultivation alone will develope the truth.

So far, says Decaisne, natural history has mostly been a science of observing apparent facts; but she ought to advance to a science which makes experiments and takes them as basis. Especially so in botany, where experiments will carry the species to really decisive and natural types. The practice for the last thirty years has been to split and multiply the species *ad infinitum,* and, instead of trying to find out what produced such and such variety, and then found to raise it again from *seed,* the sole object seemed to have been to perpetuate it by grafts, by which process nothing has been learned. To go on in that way will bring on chaos, and science will be killed by it. This is the sentiment of M. Decaisne, of his friend Dr. J. Dalton Hooker (in his *Flora indica*), and of all sensible monographers.

As generations of trees and generations of observers will be required to carry out such an undertaking; public institutes alone can do it. And with regard to experiments, the system should be that they be duly registered; that there be properly and clearly explained the intention of each experiment; that the experimental plants be properly and carefully designated and described; and that care be taken in every respect to make the process a steady and permanent one, which no change of persons can destroy or mislead. I am, however, afraid that this task will but remain a pious wish (*ein frommer wunsch*).

Foreign Correspondence.

BY AN OCCASIONAL ENGLISH CORRESPONDENT.

As usual, we have pretty well of "novelty," something "new," something "fresh," to satisfy those who *must* have a change, whether for better or worse. No doubt there will always be improvements, and as long as there is a rage for novelties, there will be an ample stock on sale. Yet is there always corn amongst the chaff—gold amongst the dross—at least for some one. Yet one is constantly disappointed at the hopes that are brought into life by overdrawn exaggerations, such as the most profound practice cannot realize. How better and more pleasant it would be if we could rely exactly on the representations given.

Now, some people entertain a foolish notion; they think amateurs are not so well qualified to judge as gardeners are, on the merits of certain productions; but although we admit that gardeners ought to be the best judges, they are not *always* so. We happen to know some amateurs who are connoisseurs of the very first water, and who in decorative arrangements, inside or out, cannot be surpassed. We know others equally well qualified in the vegetable and fruit department: men on whom we should not like to attempt an imposition. We have frequently seen in Horticultural Exhibitions results manifesting every good point, and such produce contributed and grown by men not professionals. They not only know *what* to grow, but generally they know how to grow it; and their support cannot be dispensed with, for their influence, direct and indirect, is of vast service.

In purchasing plants, seeds, or fruits, it is quite possible to expect too much. What may satisfy the taste of one man may not please another, and situation makes a difference. We know that fruits vary considerably—not only in size, but in flavor and appearance, in different situations; and vegetables which are hardy in one place, and are a certain crop, only occasionally give satisfaction in other places.

We have seen "Conifers" and ornamental trees beautiful, green and healthy in one situation; while the same plant from the same nursery proved miserable failures in another situation in the very same county. The purchaser should have consulted the practical skill of experience *before* he laid out his money.

I give an instance showing how failure may arise from other causes beside a bad situation. A very fine *Auracaria imbricata* having been purchased at a high figure, and planted by a man who professed to understand his trade. For about three years this tree *existed,* but during all that time never added one single shoot to its size. I was requested to examine this plant, in order, if possible, to discover the cause of its standing still. I examined the roots, and found they had been planted in soil so completely saturated with wet, that every root and fibre had been rotted away, and on the surface only a few live ones had struggled through. To make matters worse, this had been planted when the soil was wet, and was "trodden down by feet," *not small nor light,* which had given the finishing stroke and made the soil thoroughly incapable of supporting life. The roots, too, had been planted in a complete lump, and every precaution taken to *prevent* the plant from growing. I took this plant up, cut away its dead roots, and replaced the *clay* with soil, and applied a good mulching to prevent any unnecessary drain on the feeble resources of the plant. A little careful nursing through the summer soon showed its good results; and now, having had a chance for life given to it, it is looking well, growing freely, and promises to make a fine specimen. I mention this case merely to show how possibly the wrong party might have been shouldered with the blame, which fairly belongs to the bad gardening of the planter.

Amongst the newer class of real improvements we must call attention to the *Phloxes.* They require but little attention; still they do best when well cared for. We have seen them used with very good effect, mixed amongst hardy heaths, and such like plants as are commonly grown in an American garden; and, when in bloom, they looked very pretty, and were much admired. The colors are now pretty numerous.

There never was a time when the demand for "Conifers" was so general as at present. They are purchased largely by owners of large estates, and they are extensively patronized in the small gardens and pleasure-grounds, wherever the atmosphere will permit them to live, for they seem to like pure air *as well* as any plants we know. We have seen a good deal of time and attention lost on these plants in the towns, where there was rather too much soot and sulphur in the atmosphere for their fancy. The *Auricaria imbricata,* the Hemlock Spruce, the *Cupressus funebris* seem now to form an indispensable portion of those treasures.

In purchasing these plants it is important, not only to consult our fancy in their form, but also the situation we have for their reception and further location.

From our Regular Correspondent.

Handsworth Nursery, near Sheffield, Yorkshire, England, Messrs. Fisher & Holmes, Proprietors.

Having given an account in a recent "gossip" of *one* of the great London nurseries, we now think it well to give a sketch of one of the great provincials. This nursery may be taken as a *very* favorable example of the country trade. Having been established many years, it has gained something more than a name, and does now a constant business, and that on a very extensive scale, with every civilized part of the globe where horticulture is cared for. It is about three miles distant from the town of Sheffield, and is easily accessible from either the North Midland Railway, *via* Masbro, or from the Great Northern, affording direct communication with London, Liverpool, and Hull.

The nursery occupies over one hundred acres, in a ring fence, all of which is used for regular nursery work. There are at present 70 men employed, independent of two other seed establishments, one in Sheffield, the other in Rotherham, a town some six miles distant.

We saw here last summer the "Farfugium grande," planted out, and when this plant is used as a centre for a circular bed, and edged round with "Englefield scarlet," Verbena, or some of the small scarlets, the plant has a very pretty effect. We also saw in this garden a bed of *Bouvardia Angustifolia,* which looked nearly as bright and showy as any of the many charming things then in bloom; even where the color is the same, this is a pretty bedder; being so very distinct in habit from the Verbena, it forms a pleasing change. It is so profuse in blooming, that it is found necessary to raise stock from root-cuttings. There is a beautiful plant of *Auracaria imbricata* standing out in bold relief, which forms a most attractive object, we might say a *coveted* object, for which a little fortune has been frequently offered in vain.

The houses are all substantially built, and generally heated by the *flue,* each house, in most cases, having a separate fire; but as coal is very cheap hereabouts, the importance of the *one boiler system* has not been *felt* as it is in other places under different circumstances. The houses are nearly all span-roofed, and are furnished with all sorts of conveniences to hold the thousands of young plants which do credit to the skill of the propagator, Mr. Church.

In the Propagating House *tan* is used pretty much, although the house has other and ample fire without. Small, close boxes are used, instead of hosts of bell-glasses, and so far as we could judge, with some advantage. Mr. Church raises very many things from leaves, with buds, such as *Pavetta Borbonica,* for instance. Scores of leaves of this plant were in, and had, we believe, without a single failure, struck root, and were forming nice plants. This principle is carried out very considerably, great numbers of all sorts of plants being propagated in this way. We saw a singular occurrence in this house; a *Pandanus* sucker had been potted, and from some accident, the centre or heart was lost; and out of the midrib of the leaf, about half way, sprung out a growth, as if to keep the plant alive. This struck us as more singular because there was no sign of a bud there. Great numbers of Rosse were here pushing away, grafted on the *Manetti* stock; also Lomatia feruginea, in stock; Lomatia heterophylla, a pretty fern-like plant; Farfuguim grande, in great numbers, an Thuyopsis borealis, with Verbenas, Fuchsias, &c.

No. 2 is a large span-roofed house used for Geraniums. No. 3 contains a miscellaneous collection of Calceolarias, Cinerarias, Petuneas, and bedding plants in endless variety. No. 4 is a Propagating house on the tank system, principally used for Dahlias and the like. No. 5 is stove. This is well filled with Dracœnas, Ixoras, *Pandanus* (a fine plant), Begonias, and a very nice collection of Ferns; also, Gesneria cinnabarina, in stock; this is a good plant, and deserves a wide circulation. No. 6, stove stock, same as the last. No. 7. Azalea house.

Here we saw, for the first time, a new and handsome *Abies,* not yet named. This plant differs from the Canadensis, by being more densely clothed with leaves, which are arranged in whorls, while in the *Canadensis* they are arranged in pairs.

We must notice the fine hedges of *Privet, Hornbeam, Box, Holly,* &c. Some of these must be fifteen feet high. They are carefully clipped, and are very useful in breaking the force of the wind and for a protection. These fine hedges are as useful in summer as a shade from the sun as they are in winter as a protection from the cuttingwinds. Some of these divisions are used as specimen grounds. Here is the hardy Azalea, then the Rhododendron, noble plants, the result of many years of care and attention. Here was a seed-bed of the finest hybrids, coutaining, it is estimated, two millions of seedlings. Then in another of these *green-walled* divisions is the *Pinus* tribe, where purchasers can see for themselves the true character and distinctive features of these plants.—We must not forget to mention that there is an avenue of Hollies planted here; there are from 70 to 80 different varieties planted side by side.

Horticultural Societies.

PENNSYLVANIA HORTICULTURAL SOCIETY.

FEBRUARY 15th.

This was but a business meeting, but
Mr. Buist exhibited a new plant—Correa Cardinalis.
Mr. R. G. Swift—four pots of Hyacinths.

MARCH 15th.

The Stated Meeting of the Society was held on Tuesday evening March 15th, 1859.

M. W. Baldwin, the newly-elected President, made his first appearance in the chair, and made a very eloquent address, urging the members to greater exertions to advance the cause of Horticulture, and strongly recommended the purchase of a hall for the exclusive use of the Society, and also, if possible, the establishment of a Botanical Garden.

The Committee on Plants and Flowers reported the following awards:

For collection of 10 plants, Best to James Eadie, gardener to Dr. Rush.

do	do	Second Best to Jno. Pollock, gardener to	Jas. Dundas.
do	do	Third Best to Geo. Lazenby, do	Jno. Anspach.
Collection of 6 Plants, Best to Jno. Hamilton, do			D. R. King.
Specimen Plant, Best to Geo. Lazenby, do			Jno. Anspach.
do		Second Best to John Pollock, do	Jas. Dundas.
Pair Specimen Plants, Best do		do	do
Basket of Flowers, Best to John Habermehl, do			Jno. Lambert.
do		Second Best to John Hamilton, do	D. R. King.
Bouquets for the Hand. Best to Jno. Habermehl, do			Jno. Lambert.
do		Second Best to James Kent.	

Camellias, 6 plants, Best to John Pollock, gardener to Jas. Dundas.
do Second Best to Peter Mackenzie.
do 15 Cut Flowers, Best to James Sudie, do Dr. Rush.
do do Second Best to Peter Mackenzie,
do do Third Best to John Pollock, do Jas. Dundas.
Azaleas, 6 plants, Best do do do
do Specimen plant, do do do
Cinerarias, 6 plants, Best to James Thomas, do A. J. Buckner
A fine collection of Hyacinths, a Special Premium of $3 to Thos. Meehan.
A display of Flowering plants, do $4 to P. Mackenzie.
do do do $3 to James Kent.
New Plants, do $1 to P. Mackenzie.
do do $3 to Christian Mack, gard. to B. P. Hutchinson.

The Committee also called the attention of the Society to a beautiful Funereal Chaplet from J. Hamilton, gardener to D. Rodney King.

The Committee on Vegetables awarded the following premiums:
For the best Mushrooms, 12 specimens, to John Cook, gardener to Rev. J. M. Richards.
For the Best Lettuce, 6 heads, John Gray.
Two very superior Cucumbers and a dish of fine Asparagus, a special premium of $1 to John Brooks, gardener to C. F. Abbott.
Three specimens of Rhubarb, a special premium of $1, to Thos. Meehan.
Two fine Cucumbers and a dish of String Beans, a special premium of $1 to J. Cook, gardener to Rev. J. M. Richards.

The Committee called the attention of the Society to a dish of fine Mushrooms, exhibited by John Thomas, gardener to A. J. Buckner. Also, to a basket of forced Dandelion, from J. Hamilton, gardener to D. Rodney King.

The display at this meeting was worthy of the Society in its palmy days. The room was one blaze of bloom. Georgeous Azaleas and Camellias, combined with the more delicate lines of the Erica, Epacris, Orchids, &c., together with the noble specimen plants, formed such a combination of attraction, as will be long remembered. Among the new plants we noticed fine specimens of Begonia Sandersii, Thunbergia laurifolia, Farfugium grande, Begonia Rex, and a number of variegated leaved plants. We hope that hereafter the exhibitions will go on increasing in interest.

MASSACHUSETTS HORTICULTURAL SOCIETY.

SATURDAY, MARCH 5th, 1859.

President Joseph Breck in the chair.
Three members proposed.

REPORTS OF COMMITTES.

Samuel Walker, for the Committee appointed January 1st, presented the following report.

Professor Jenks made a report on the Robin, and on motion of Samuel Walker, it was accepted and placed in the hands of the Committee to be printed and distributed.

Josiah Stickney, for the Committee on Extended Accommodations, asked further time; and it was voted that the Committee are hereby authorized to employ an architect to estimate and draft plans of such alterations in the present building as the Committee may desire, and report at a future meeting.

On motion of M. P. Wilder, it was voted that Professor Jenks be furnished with letters of introduction, signed by the President and Secretaries, and under the seal of the Society, in his tour through Europe as a Zoologist.

M. P. Wilder presented 25 copies of Proceedings of the American Pomological Society, and a vote of thanks was returned to the Society.

M. P. Wilder briefly addressed the Society upon the subject of the Governor's recommendation to appropriate a portion of the Back Bay lands for the erection of a public building devoted to the interest of Science and Art.

Upon Mr Wilder's motion, the Society voted to join the Boston Natural History Society in their memorial to the Legislature in reference to the matter, and a Committee, consisting of Messrs. Buck, Wilder, Pratt, Walker, Hovey, Stickney and Strong, was appointed to carry the vote into effect.

Joseph Breck exhibited fine specimens of the Cereopsis elegans, Euphorbia splendens, Sparaxis, Duchess d'Orleans, Claria Perriene, De Hout Villi, Ixia crocata, and Coccinea, seedling Petunia, Breck's striped.

E. J. Rand, Jr., exhibited Ixia viridiflora.

F. Dana, Roxbury—Fine dish of Apples, Ladies' Sweeting.

H. Vandine, Cambridgeport—Several dishes of Apples and Pears, but with no names attached.

Meeting adjourned to the 1st Saturday in April.

We also append to the transactions the following interesting correspondence:—

BOSTON, February 25th, 1859.
Massachusetts Horticultural Society's Hall.

To Josiah Stickney, Esq.,

DEAR SIR—Having been appointed at a meeting of this Society, a Committee to procure and present to its late President a piece of Plate as a testimonial of its appreciation of his services, the undersigned, in carrying out the intentions of the Society, request your acceptance of the accompanying.*

For a long time we have had the pleasure of being associated with you, and then made aware of your successful efforts to advance the interests of the Society—of the fidelity and ability with which you have discharged the duties of its Presidency—constant witnesses of the dignity and impartiality with which you have presided over its deliberations—and the kindness and courtesy that has marked your intercourse with its members; therefore the undersigned feel great pleasure in being made the organs of the Society to express to you the high estimation in which it holds your labors and services.

While conveying to you this proof of the consideration of the Society, the undersigned would avail themselves of this opportunity hereby afforded to give you the assurance of their esteem and respect, and that you have their best wishes for your continued prosperity and happiness.

With great respect, your obedient servants,
SAMUEL WALKER,
M. P. WILDER,
J. S. CABOT. } Committee.

Copy of Inscription.

From the Massachusetts Horticultural Society to Josiah Stickney Esq., their President for the year 1858.
A good man increases the period of his own life.

* A Silver Pitcher and Salver.

REPLY OF JOSIAH STICKNEY.

BOSTON, February 28th, 1859.

GENTLEMEN—I received, with great pleasure, your kind letter of the 26th inst., accompanied with a beautiful and substantial token procured by you in accordance with a vote passed by the Massachusetts Horticultural Society on my retiring from the Presidency.

I assure you, gentlemen, it is with feelings of heartfelt gratitude that I accept this rich gift, not in consideration of its relative value, or because I have merited it for past services, but as a lasting testimony of regard from the members of this honored Institution.

The very flattering manner in which you referred to my short administration, I appreciate most highly; but whatever of success has attended the progress of our Society is mainly attributable to you and other active members of the Society associated with me.

Allow me, gentlemen, to convey through you to all the members of the Society my grateful thanks for this and all other acts of kindness manifested toward me.

With endeared recollections of our past intercourse, and hopeful confidence in our future destiny, I subscribe myself,

With great regard, your friend and obedient servant,
JOSIAH STICKNEY.

To
HON. SAMUEL WALKER,
MARSHALL P. WILDER,
and JOSEPH S. CABOT. } Committee.

SATURDAY, MARCH 12th, 1859.

EXHIBITION.

From Josiah Crosby, West Cambridge, Tennisball Lettuce, (very fine).

From G. G. Hubbard, Cut Flowers of the Azaleas, Cinerarias, Roses, Tropœolums, &c.

No meeting.

CINCINNATI HORTICULTURAL SOCIETY.

FEBRUARY 19th.

President Hazeltine in the Chair.

Resolved, That the Society hold a Spring Exhibition, the prospect for which is very encouraging.

A paper was read by Dr. Mosher, on pruning. Dr. M. said, "It is now generally known that the old theory of the circulation of sap through two sets of vessels, analogous to the arteries and veins in animals, has been totally exploded by the more accurate investigations of the microscope and the profound researches of modern philosophers. Instead of a vascular system, which was supposed to carry on the circulation of the juices for the nourishment and growth of the tree, it is found that the entire vital and active portions of all plants is wholly made up of cells performing different functions in the vegetable economy. The first rudiment of a plant being a single cell, out of which, or in which, from the absorption of nourishment through its walls, are formed new and additional cells, which constitute the whole growth of the plant, be it ever so majestic. And what may seem very surprising and curious to those who have not investigated the subject, every perfect cell in the plant placed under favorable circumstances is capable of being developed into a bud, a branch, or into a perfect tree.

"In all trees belonging to the class of Exogens, the growth and enlargement is formed on the outer surface by the production of a new series of cells annually, after which the older cells which formed the growth of previous years becomes gradually broken up and hardened into woody layers, constituting the concentric circles of which all trees of this class are composed.

"The cells of the last year's growth, therefore, may be regarded as the only vital portion of the plant, which is upheld and supported in its position by the inner, old wood—like the Virginia Creeper (Ampelopsis Quinquefolia), by the dead trunk of an old tree. These newly-formed cells are divided into two layers, forming the inner bark and the outer sap-wood. In autumn, and during the winter, these cells are plethoric with the nourishment laid up in store, awaiting the vivifying effects of a vernal sun to awaken from their slumber and give birth to another generation of similar cells developing the buds, leaves and flowers.

"Now, let us observe the consequence of cutting off a limb in winter or spring, before the cells have exhausted their stores of starch, gum, sugar and gluten, in the expansion of leaves and flowers and extension of branches, every cell surrounding the base of the branch that is cut away, whose store was laid up for the growth of that branch, forms a bud and bursts forth through the bark in the form of what is termed water-sponts—whereas, if the pruning is omitted till midsummer, when the contents of these cells have become exhausted in the protrusion of buds, leaves and young branches, and are beginning to decay, as it were, branches may then be cut away with no injury to the tree—and on water-sponts will follow the operation—and the filling up of the new cells by the fall growth, incorrectly ascribed to the descending sap, will go far toward healing over the wound, if not too large, and this deposit takes place so soon after the pruning, and at a season usually dry, there will be little exposure of the stump, which becomes so condensed that no decay ensues till healed over.

"The same principles that apply to pruning should also be observed in the removal of suckers from the roots around the trunks of trees. When grubbed off in spring they are followed by a multiplication of the number in summer; but if carefully removed in July or early in August, they rarely return.

"The almost universal practice of pruning in winter and spring was probably founded on the supposition that trees remain dormant at this season, and would not feel the effects of the amputating knife. It is true that trees may be said to slumber, but if these branches are lopped off during that slumber, they awaken in spring with a sort of vengeful effort to restore the amputated part by throwing out a multiplicity of sprouts to supply the loss. A less philosophical argument, perhaps, for pruning at this improper season may be urged in the greater freedom from other more pressing occupations in winter and spring."

The pruning and management of the Peach, in connection with pruning fruit trees, was then taken up.

Mr. Beaver recommended cutting back the half of the annual shoots of the peach tree, and to mound up with sand, lime or ashes, about the stem to keep out the Peach borer.

Mr. Carey would rather draw away the soil to the lowest possible point, cutting out the worms after they had entered.

Mr. Longhry, the successful cultivator, does this; practices steadily the worming process or cutting out fiequently; keeps his trees compact, and manures with lime, ashes, &c. He cultivates also with low stems, about three feet from the ground.

Mr. Ricker agreed with Mr. Cary, and succeeded pretty well.

Mr. Addis also laired the roots pretty well; also cultivated the trees with low branches.

Mr. Sayer objected to pruning dwarf Pears too severely when young.

Twenty-three members were enrolled.

FEBRUARY 26th.

President Hazeltine in the Chair.

Mr. Longworth sent the following question:—I shall this spring plant one hundred acres in apple and peach trees, on the hills, 70 miles up the river. Mr. Flagg's views and mine do not agree.—Which is the best plan—to plough the ground according to the depth of the soil, from twelve to sixteen inches, or dig the holes, say three or four or more feet in diameter and two and a half or three feet deep, and fill the holes with prepared soil to plant the trees in?

Dr. Sturm would use a four-ox plough deep over the ground; then make holes three feet deep and three feet wide, and fill in with good soil.

Mr. Mottier would not dig the deep holes.

Mr. Mullett agreed with Mr. Mottier.

Mr. Cary would plant shallow; would not make deep holes in clay soil; it answers better in sandy soils. The soil should be well pulverized to the depth of *four or five feet.* [Has not Mr. C. been mis-reported?—ED. G. M.]

Mr. Reilly considered it best to subsoil the whole ground with four, or even six oxen, twenty inchos. He first breaks the surface with two horses, marks out his lands—thirty-two feet for apples, peaches between, sixteen feet—throws two furrows together, making ridges on which to plant; making the ground rather hollow between; digs very small holes, but piles up good earth to some distance round his trees. His soil is good and well pulverized.—The effects are surprising. He planted in the spring, used no stakes, and always cut off all broken roots before planting.

Mr. D. O. Reeder advocated *holes*, but would have but *one* hole for each orchard. He subsoiled 12 inches.

Dr. Moore alluded to an orchard subsoiled 18 inches, and planted shallow, that was a great success.

Mr. Hedges planted in holes two feet deep and three wide.

Mr. Sanford had one of the finest orchards in the country, planted in large holes, but had the soil drained.

Mr. Orange remarked, that after all, it depended on the soil whether holes should be made deep or not. Stiff subsoils will not admit of it.

Mr. Hosmer endorsed Mr. Reiley's plan of cultivation and preparation of ground. Subsoiling he thought excellent, even in new soils, if possible.

Four new members were enrolled.

MARCH 5th.

In answer to Mr. N. Longworth's communication of the 24th of February, received last meeting, inquiring of the Society which is the best plan: "To plough the ground according to the depth of the soil, from twelve to sixteen inches, or dig the holes say three or four or more feet in diameter, and two and a half or three feet deep, and fill the holes with prepared soil to plant the trees in," the following resolution, submitted by Mr. R. Reily, was passed:

Resolved, That it is the sense of this Society that in preparing land with a clay subsoil for orchard purposes (especially for the cultivation of the peach, pear and apple,) that has already been or can conveniently be cleared of stumps, roots, etc., the same should be subsoiled to a depth of from fifteen to eighteen or twenty inches, and *thoroughly drained* by the use of tiles, stones or brush.

Eleven new members were admitted.

GENESEE VALLEY HORTICULTURAL SOCIETY.

Annual Meeting held February 7th, 1859.

This Society appears in a flourishing condition. The officers elected for the present year are as follows:

President—Silas Mathews.
Vice-Presidents—W. A. Reynolds, L. A. Ward, Isaac Hills.
Secretary—O. W. Seelye.
Treasurer—F. W. Glen.

HORTICULTURAL SOCIETIES IN MISSOURI.

We are pleased to learn that Societies have succeeded in establishing themselves—one in Allentown, and the other in St. Louis.

HORTICULTURAL SOCIETY OF MONTREAL

(From the Commercial Advertiser, Jan. 24th, 1859.)

"Wednesday last being one of the days on which the Greenhouses of members of the Horticultural Society were thrown open to their associates and friends, we enjoyed the rare treat at this season, of luxuriating for a while in the choicest productions of the tropics, reared by art, to mock our barren winter.

We first visited the establishment of James Ferrier, Esq., Jr.; his Greenhouse is a fine arched roof building of considerable extent, and set off with fountains, aquaria and other ornaments."

After naming many of the most beautiful plants then in flower, he continues:—

"There is also a large collection of rare and beautiful Ferns, one of which grows no where but on Arthur's Seat, Edinburgh, and a great variety of Orchidea or Air Plants. We had almost forgotten to mention the Orange and Shaddock trees in the Greenhouse with their decorative fruit.

"We missed from Mr. Ferrier's collection, the Old Man or Monkey Plant, which attracted much attention at the two last Provincial Exhibitions, from its resemblance to a human figure covered with long hair, and regretted to find that both specimens had fallen victims to woman's curiosity; to satisfy themselves the the hair was no deception, the ladies plucked it out from the plants, which bled from the wounds and died. Mr. Ferrier's gardener is Mr. James Nairn.

"We next visited the Greenhouses of J. Torrance, in St. Antoine street; the houses are upon the old lean-to plan, but they are remarkably well kept, and in spite of the destruction of immense numbers of fine plants, many of which will require years to replace, by the fire last summer, are well filled. The Cycas Revoluta or West Indian Palm, is a remarkably fine specimen, and one of the largest in Canada.

"M. Torrance's greenhouses are under the charge of Mr. Thomas Horsman, gardener, and the condition of the plants, the order of the whole, and the fine show which he makes after the disastrous fire of last year, show that he not only understands his profession thoroughly, but performs its duties zealously.

"In concluding these necessarily imperfect notices of what requires to be seen by amateur as well as novice to be appreciated, we must express our thanks to the owners of these and other establishments for opening them to the public, and thus assisting to cultivate that which most tends to refine and elevate a people, the love of the beautiful in Nature and Art."

[We are much obliged to the unknown friend who forwarded us the above account. Our Southern friends are quite freely sending notes of Southern Horticulture for the information of their Northern brethren, and we hope they will, in return, return the favor with their Northern experience and practice.—ED. G. M.]

[From La Revue Horticole.]

SOCIETE DE LA HAUTE,

MARNE, FRANCE.

M. Batlet read a paper on the preservation of wood under ground, by immersing the wood in a solution of copper. Wood has been preserved in this way for fifteen years without the slightest signs of decay. Dissolve 1.5 kilogrammes (about 3 ℔ 5 oz. avordupois) of sulphate of copper in 1 hictolitre (about 22 gallons) of water.—Immerse the wood (stripped of its bark, and of the desired shape) in the solution for from 8 to 12 days. If the wood is dry, the solution should be heated. If it is green, let some of the leaves remain; they will help to promote a circulation in the pores of the wood and cause the solution to penetrate it. The sulphates of iron and zinc have somewhat the same effect.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. MAY 1, 1859. VOL. I.---NO. 5.

CALENDAR.

5th Month, May, 1859, 31 Days.

Moon's Phases		Boston.		Philad'a.		Baltim're		Charl'ton	
	d	h m		h m		h m		h m	
New.	2	5.20 ev.		5.03 ev.		4.57 eve.		4.45 eve.	
First Quarter.	9	0.15 ev.		11.58 mo.		11.52 mor.		11.40 mo.	
Full.	16	4.23 ev.		4.06 ev.		4.00 eve.		3.48 eve.	
Last Quarter.	24	6.05 ev.		5.48 ev.		5.42 eve.		5.30 eve.	
Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	2	4.53	7.00	4.59	6.55	5.01	6.53	5.12	6.42
	9	4.45	7.06	4.51	7.02	4.54	6.59	5.06	6.47
	16	4.38	7.13	4.44	7.08	4.47	7.06	5.01	6.52
	24	4.31	7.21	4.37	7.16	4.41	7.12	4.56	6.56

This Calendar will answer for the sun for any place in the same latitude.

Hints for May.

FLOWER GARDEN.

THE month of May having come, there will no longer be any dread of spring frosts, and their disastrous consequences to tender plants; and greenhouses, cellars, frames, and every little nook and corner, where plants have been preserved through the winter, will speedily be emptied of their contents.—Many of the flower-beds have been filled with Hyacinths, Tulips, and other spring-blooming bulbs.—Unless very thickly planted, the summer-blooming border plants may be set out of their pots in between these,—that is, if they have done flowering. Tulips will probably scarcely have had their bloom over, and must remain longer. If any pressing necessity exists to remove such bulbs, with care they may be transplanted, watering the soil before and after transplanting. They can then be put in any spare spot where they will not be in the way for a time. Transplanted bulbs, however, seldom bloom so well the next season. It is very important, where this is an object, to retain the foliage fresh to the latest possible period.

As the plants in the borders grow, those in masses may be much improved by being pegged down over the surface. We can then train shoots where we wish, and thus cover the beds much sooner. Pegs for this purpose are best made by getting any straight shoots of trees, about one-fourth of an inch thick and cut into four-inch lengths, then splitting them down the middle into two. These pieces are then bent in the middle like hair-pins. Pieces so split seldom break in doubling.

The first week in May is usually the time to set out Dahlias. They do best in a trenched soil, say 18 inches deep at least, and prefer cow-manure to any other when it can be obtained. If planted on thin or dry soils, they will not bloom till near the approach of frost, when the chief enjoyment of the Dahlia is lost. It is best, where possible, to plant a duplicate of each kind.

Tuberoses should also be planted this month, but they like a warm rich sandy soil; though, like the Dahlia, they do not like dry soil. As a rule, Tuberoses that flowered last fall will not do so this, but the offsets will do so the year after.

Amarylis formosissima, or the Jacobea lily, flowers usually very beautifully in the open border in August, and should now be planted. Many kinds of annuals that have been raised in pots or boxes, in windows or frames, should be transplanted into the open ground whenever the weather is favorable, that is showery or dull. The pots containing them should be well watered before the plants are lifted, and the soil into which the seedlings are planted is best dampened, or what is perhaps better, well watered the day before, so as not to require a heavy watering immediately after the seedlings are planted. Too heavy waterings render the ground hard; and this, when dry, becomes unsuitable to the growth of plants.

In transplanting any thing that has roots large enough to admit of the practice, it is best to dip the roots, immediately before planting, into water. This will obviate the necessity of after-watering, and its consequent injurious effect. If the plants appear to flag, shade or put an inverted flower-pot over the plant for a few days; if this does not bring the plant to, it must have water.

Trellisses and stakes for climbing plants and vines should be put in at or before setting out the plants. These plants always seem to grow with more freedom and vigor when they can find something at once to cling to. Climbing vines add greatly to the interest of a garden. They can be trained into all sorts of forms and shapes; and many of them, for gracefulness of form, or beauty of their flowers, cannot be excelled by any other tribe of plants.

In planting extensive flower-gardens, it is best to retain a few plants in pots, in case a frost or other accident should, by chance, destroy some of those set out earlier.

Pansies and Daisies should be set out in rather a shady and moist place,—not under the shade of trees, as the roots of these dry the soil too much.

The Hollyhock is become one of the most popular and useful of summer bedding plants. They like a rich, warm, and rather dry soil.

FRUIT GARDEN.

THE season is fast approaching when it will become necessary to pay strict attention to summer pruning. Since we undertook the management of this paper we have repeatedly called attention to the fact, that of all operations, this is the least understood, and yet one of the most important. It must not be forgotten that the object of pinching off is to *weaken a shoot.* The lower shoots are always the weakest by nature, and should never be shortened in summer. Dr. Lindley explains this so clearly in his Theory of Horticulture, that we can do no better than extract his own words:

"There is no difficulty in obtaining the requisite number of branches, at proper distances, by observing the following directions: Plant a maiden tree in autumn; allow it to establish itself for one year, and then head it back to a good eye, a few buds from its base. Let one shoot grow as strong and upright as possible during the summer, and head it back to within thirteen inches of the ground in autumn, cutting very close to a bud, in order that the shoot springing from it may form little or no bending; train it upright, whilst three or four shoots, from buds immediately below it, should be more or less inclined to horizontal direction, according to their strength; the strongest should be most depressed. These three or four constitute the commencement of the first or lower tier. For the next tier, head back the upright leader to within eighteen inches of its base, if the soil is rich; if not, to fifteen inches; and from the shoots produced in the following season from buds, just under the cut, train a shoot for a leader, and three or four somewhat horizontally, as before, for a second. Precisely in this manner tier after tier must be started, till the tree attains its assigned height. All this can be effected in accordance with the natural disposition of the tree to form an upright stem, and with the tendency of the sap to develop the uppermost buds of a shortened shoot. But it is not to be done without serious difficulties.

"The shoots started for horizontal branches will rarely take that direction; on the contrary, they will generally diverge at an angle of 45°. This may, and should be overcome by tying down. The disparity of vigor in the upper, as compared with the lower branches, is a more serious affair If allowed, the former will soon overgrow the latter, and the pyramid will ultimately become inverted. It is, therefore, evident that, in order to have well-conditioned pyramid pear-trees, means must be adopted to maintain vigor in the lower tiers of branches, and repress over-luxuriance in the upper.

"With the view of invigorating the lower, permit the shoots to grow without restraint till September, and then bend them towards a horizontal position.—They will thus be much stronger than if they had been made to follow a horizontal direction from the beginning. Shorten them a little at the winter pruning, in order to obtain a stronger leading shoot than would otherwise be produced. Cut to a side bud; one on the upper side would produce a stronger shoot, but the latter could not be brought down without occasioning an unsightly bend. Besides a leader, some other shoots will probably be produced; let them grow, for their foliage will assist forming channels or layers of wood containing channels, for the transmission of sap along these branches in the following season. The growing shoot should have its point elevated till September, as before. No reduction of foliage connected with the lower branches should be made by summer pruning. Their leading shoots must not be overshaded.

"In order to prevent excessive luxuriance in the upper branches, recourse must be had to summer pruning as the most efficient means. The shoots should be trained horizontally from their origin, their points depressed instead of elevated. In short, they must be subjected to a treatment generally the reverse of that recommended for the lower branches."

Another very important subject of attention at this period is the destruction of insects, and the prevention of their ravages on trees and fruits.

Bottles of sweet liquor suspended among the branches of trees destroy innumerable numbers of them, and are attended with but little labor or trouble. Possibly some application of a similar substance to the newly-invented fly-paper, which catches and destroys flies by the thousand very easily, might be attended with beneficial effects. Fires occasionally in orchards where many apple moths exist, of an evening, would undoubtedly destroy many very easily; but this process cannot be employed in those localities where over-zealous firemen are on the look-out for a chance with "der machine."

The smell of coal tar is offensive to most insects. Tow or rags saturated therewith and put in various places amongst the branches may have some advantages. Damp hay or tobacco-leaves tied to the end of a pole, and, when the fruit is damp or covered with dew, the bunch fired and the smoke led through and among the branches, has been found very useful. Sprinkling the fruit with oily water, or solution of soot, or sulphur or aloes, or some other thing that may be known to be unpalatable to the miserable vermin, should also be tried.

The borer may be easily prevented from injuring the trunks of trees by applying coal-tar a few inches above and below the collar of the tree. This was tried under our direction extensively at Springbook some years ago, on Peaches, Nectarines and Plums, without any injury to the trees, and quite successfully against insects. Mr. Freas, of the *Germantown Telegraph*, some years ago invented a plan of wrapping canvas around the collar, and finds this also effectual. A combination of the two ideas will do all the work desired.

VEGETABLE GARDEN.

Melons, Cucumbers, Corn, Okras, Squash, Beans, Sweet Potatoes, Lima Beans, Peppers, Egg-plants, Tomatoes, and other tender vegetables that do not do well till the sun gets high and the ground warm, should go into the soil without delay.

Bean poles should be set before the beans are planted, and near cities where they are comparatively high priced, their ends should be charred. This will make them last some years.

Drumhead Cabbage, Savoy, Red Cabbage, Autumn Cauliflower, and other kinds of fall greens, should be put out at once. The soil can scarcely be too rich for them.

Keep weeds of all kinds down from the time they first show their seed leaves. It not only saves labor "in the end," but the frequent stirring of the soil vastly serves the crop. Sow a succession of vegetables every few weeks,—sometimes insects, sometimes frost, or occasionally other accidents will cut off a crop, and then there is some chance for its successor not wholly to disappoint.

HOT AND GREENHOUSE.

The plants here will soon be pretty much thinned by the demands of the flower garden, and pleasure-ground—the cellars and window-frames will give up their protegees, and a grand renovation of all things will have taken place. Nothing gives a more happy appearance to a pleasure-ground than to have the walks and particular spots about it lined and studded with Aloes, Oranges, Pomegranates, Lemons, and similar tropical plants, set out in tubs or large pots for the summer. The scale insects often prove great pests. These are easily destroyed by syringing the plants with soap-suds heated to 130°. This was discovered many years ago by some cultivator of Pine-apples in England, but seems to have been lost to the knowledge of our modern cultivators.

Azaleas, Heaths, Rhododendrons, Camellias, and other tender-rooted plants, are often irrecoverably injured by being too long exposed to the hot suns under glass. If they are liable to such exposure, it is better to whitewash the glass, which will admit light without heat, and in some measure protect them. A very good plan is to prepare a piece of ground in the open air in such a way as most nearly to approach the kind of soil the different plants most delight in, and then, about the second week in May, turn them out of their pots into this prepared border. They will, of course, have to be lifted carefully into pots again early in the fall.

A shaded place should be selected for those which inhabit the more temperate climes, and for the citizens of the tropics the full sun will be much more desirable. For this open ground cultivation of choice plants, a shady spot does not mean under a tree, as the roots, and the drip, and the confined air, and the want of light, existing under such circumstances, are injurious.

Communications.

USES OF LIME IN GARDENING.

BY WM. BRIGHT, LOGAN NURSERY, PHILA.

Of all the mineral and earthy substances employed in agriculture and gardening, there is no one, probably, about which there exists, in the minds of most persons, more doubt and uncertainty as to its real value and action, than in respect to the simple article *Lime*. Some farmers and gardeners think very highly of it, and use it constantly; others use it rarely, or discard it altogether. The most elaborate papers on the uses of Lime, (such as that in Johnston's Chemistry, for instance,) fail to enlighten the most intelligent readers as to the true nature and action of it upon soils and plants; and the most contradictory statements are constantly being published, in Agricultural journals, as to the practical effects of liming land.

The truth is, that while some of the most important uses of lime are overlooked, too much is expected of it, by many who employ it. Farmers and gardeners are nearly all apt to look too much to one substance as a fertilizer. One thinks he can do every thing with lime; another bases all his hopes of success on plaster; a third will have nothing but rotted sod, while a fourth thinks a grand panacea is to be found in guano. No error is more fatal to success than this one-idea notion. Lime is a very important auxiliary to other manures. It is in more ways than one a real fertilizer, and it *produces*, sets free and organizes fertilizing qualities in other matters; but it is by no means a universal manure or fertilizer.

To make a long story short, I propose to set down, in a series of paragraphs, the most evident and important uses of lime in gardening, and to call attention especially to two actions which it possesses, which are not very generally recognized or understood.

1. Lime is an alkaline earth, (a sort of salt,) and its first and most evident use is to *sweeten sour soils*.

2. Lime furnishes a substance which is present in considerable quantities in the ash of nearly all our cultivated plants and fruits. For this reason, partly, lime is specially useful to potatoes. The tuber of the potato shows but a trace of lime in a ton, and hence, some writers have hastily concluded, that lime, in quantity, is not essential to this crop. But look at the analysis of the straw or tops: there you will find nearly three hundred pounds in the product of an acre.

3. Freshly slacked, or caustic lime, acts as a *powerful decomposing agent*, when in contact with masses of earth or vegetable matter, setting free many substances which before existed in forms insoluble in water, and causing the natural decay of organic bodies to be hastened.

4. Lime causes cold, dense soils, to become more open and porous, and renders light sandy soils more close in texture, or more adhesive. These last are facts very generally understood.

5. Vegetable matter (that is, loam, sods, stable-manure and straw) is the food of lime. By its decomposing power, it may almost literally be said to eat up vegetable matter and loam. It effectually decomposes and drives vegetable matter and manure out of the soil, when in the caustic state. Hence, where there is little loam, there lime should be used sparingly.

6. Not only does lime decompose vegetable matter, but when used in excess it renders the results of decomposition *insoluble* in water. This is an important point. We have not space to elucidate it. But we state the fact, that lime not only decomposes, and renders soluble vegetable matter, but in excess, it renders the results of decomposition *insoluble*.

7. Lime, in close proximity with decaying nitrogenous matters in the soil, (as horse manure, hair, leather, etc.,) becomes a real ammonia-producing agent; as it is a well-known fact, that lime and nitrogen, under such circumstances, unite to form Nitrate of Lime, fully equal to ammonia as a fertilizing agent, while potash and nitrogen form Nitrate of Potash, (salt petre,) the money-value of which as manure, needs no explanation.

8. Lime, when it has been burned and slacked, and again becomes mild, (or is changed into the form of carbonate,) is then a store-house of Carbonic Acid for the use of plants, and in a certain degree, has the same action upon vegetation as Carbonic Acid evolved from decaying vegetable matter. You will ask, how is this carbonic acid set free? I answer, in one instance, by the action of Carbonate of Lime upon silica or sand (which is chiefly an acid,) Silicic Acid is liberated, which in its turn acts upon the Carbonate of Lime. and large quantitics of Carbonic Acid are let loose. Other changes, of a similar character, take place in the soil, caused by the actions and reactions of acids and alkalies, which result in the liberation of Carbonic Acid, held in combination by lime, and thus it serves, in a measure, the same purpose as vegetable carbon, in its relation to plants.

The last two sections (7 and 8,) are those to which I wish to direct the attention of the reader, as they describe the least known and most important uses of lime.

My rule is to use lime, in the garden, constantly, but moderately; and especially to use it in combination with hair, leather and any slowly rotting nitrogenous matter;—and thus I secure two or three important points in "terre culture."

LETTER FROM ALABAMA.

BY X. Y.

Mr. Editor—Noticing in the March number of that excellent journal, *The Gardener's Monthly*, that you would like to hear something from the "South," I take the liberty of sending you a few lines:

How strange it seems to us, when we read in the newspapers of your severe winters, when you are blocked up by ice and snow, while the year with us, *actually*, has got twelve months (with you six only, for I can not consider the winter months as belonging to a man's *life!*) Peaches have been in bloom here since the last week in January, so have also garden peas; turnips and lettuce we have every day, fresh from the garden. My Irish potatoes are now one foot high; and my "Dan O'Rourke" peas, planted January 25th, are now in bloom, and so are the strawberries.

Do you not envy the pleasure of living in such a climate?

You already have an account, in the March number, of our vegetables. Allow me to mention two more, omitted in that list, and not known in your latitude: — *Arum esculentum* (caladium esculentum) commonly called *Tanyah*.

Another fine vegetable is the *Sicyos edulus*, or *Secium edule*, commonly called Mango or mango squash. It is a climber of rampant growth, belonging to the order of Cucurbitaceæ. It does not bloom until late in August, but then it produces an abundance of its fruits, about four inches long, by two inches thick. There are two varieties,—a green and a white; the latter is the finest. The fruit is as solid as a potato, having but *one* seed in the centre. It is of delicious flavor, and keeps all winter. It is used for cooking, like squashes, and the small ones for pickles. The root is perennial.

In the fruit line we *could* be better off than you, perhaps, think, if persons only would plant orchards and attend to them. But Cotton is the all-absorbing idea.

We have varieties of peaches, to give us a full and complete succession, from the middle of June until November, and more juicy and high flavored than with you.

Of Apples, the *Red Astrachan* and *Early Harvest* begin ripening the first week in June. Many other varieties follow in succesion, till *Taunton*, and *Yopp's Favorite*, come in during September, succeeded by the *Carter* and *Fowler*, until December; *Shockley*, *Nickajack*, and a few others close the season, and last till March.

In April our Strawberries get ripe, and last until the early apples begin.

The climate here is congenial to the Pear, and they are finer here than I have seen them anywhere. *Doyenne Boussock* is the earliest pear of *any size*, and, in fact, a glorious variety, ripening here the first week in July. But the number of excellent varieties is so large, that it would be too tedious to have them all mentioned.

Amongst the Grapes, the *Golden Chasselas* is well adapted to this climate, and ripens about the 10th of July:—*Diana*, *Warrenton*, *Pauline*, *Catawba*, *Scuppernong*, follow in succession, and are of excellent quality for the table and for wine.

Plums, Nectarines and Apricots are doing finely, when the curculio will let them alone.

Cherries are *very* uncertain; while *Currants* and *Gooseberries* are a certain failure.

But we raise splendid figs, usually two crops, and so abundantly as to make them profitable even for pigs and poultry. Preserved, they are excellent. I will send you a sample this summer.

In our Flower Gardens, I will only draw your attention to the *Tea*, *China*, *Bourbon* and *Noisette* Roses. What do you think of *Cloth of Gold* and *Solfaterre* climbing to the very top of the chimney of a two story building, the stem as thick as a man's arm? What of *Devoniensis*, *Saffrano*, *Archduke Charles*, *Triumphe de Luxembourg*, six feet feet high, eighteen feet in circumference, with a stem three inches in diameter? and all on their own roots. In spite of all the high praise of the *Manetti* for stock, I have thrown it over the fence many years ago, and will never take it back again. I prefer, with a few exceptions, to raise my roses on their own roots; but when I want stock I have one, which, at least in this latitude, is far superior to *Manetti*.

But let us leave the enclosed garden, and take a ramble through the woods!

Amongst the pure white flowers of *Amaryllis Alamasco*, and the *Azalea nudiflora*, of all colors and hues, except black and blue, and now in full bloom. We will wander in the shade of the majestic *Magnolia grandiflora*, often a hundred feet high, with stems eighteen inches across, mingled with other beautiful evergreens, as *Olea Americana*, *Prunus Caroliniana*, *Ilex opaca*, often forty feet high, while *Kalmia latifolia*, *Illicium*, and many other evergreen shrubs, are scattered all around. To relieve the dark, and glossy green color of all these beautiful evergreens, the *Halesia diptera*, with its snow-white bells, is plentifully mixed in with them, while a *Cornus Florida*, in full bloom, is still more embellished by the bright scarlet flowers of a *Lonicera sempervirens*, rambling up to its very top. To heighten this great enjoyment, *Pyrus coronaria* spreads its delightful fragrance, not inferior to that of a *Rosa Devoniensis*, all over the woods; and the air whizzed softly, and fairy-like, through the twelve to fourteen inches long leaves of *Pinus Australis*, towering high over all the other trees. Surely, this is natural beauty, that no artificially "laid out" garden can come up to!

But pardon me, My Dear Sir, for running into ecstasy, while talking of natural beauties, by which we are involuntarily led to admire and praise the Creator of all this.

ROOT-GRAFTING APPLES.

BY W. REID, ELIZABETH, N. J.

I observe in the March number of the *Gardener's Monthly*, extracts from the proceedings of the Cincinnati Horticultural Society's discussions on root-grafting apples, which, if I understand the purport of their discussions, they advocate the growing of the apple by grafting on sections of the roots,—to grafting or budding on seedling stocks in the nursery rows in the usual way, that is, from eight to ten inches above ground.

Our esteemed friend, Dr. Warder, says, that this question has been settled long ago in this country and elsewhere.

This theory is so much at variance with our daily experience, that I cannot for a moment doubt, that if a vigorous strong-rooted tree is desirable in an orchard, that those grafted or budded on wild seedling stocks, eight to ten inches above ground, are far superior to those propagated by grafting on pieces of the roots. We all know, (what Dr. Warder admits,) that they are nothing more than cuttings: the grafts rooting the first summer after planting, the only use of the piece of root being to keep the graft alive until it starts into growth. No doubt many of the strong vigorous growing kinds make very good plants from cuttings, coming into bearing early, but still they lack the strong vigorous root that a wild seedling produces. This has been long known to cultivators, that all kinds of plants, grown from seed, are far more vigorous than those from cuttings; resisting winds better, and not so liable to be blown down as those grown from cuttings, where its roots are bushy, and does not extend with that vigor that seedling stocks do.

We all know that the system of root-grafting is a cheap way of growing: enabling cultivators to increase plants with great rapidity; but this does not add any thing to the value of this system of propagating except cheapness.

Yours, very respectfully, Wm. Reid.

THATCHING.

BY AN ENGLISH THATCHER.

Sir:—In looking over your March number, I was much pleased to read Mr. Sidney's article on *Thatching*, and am surprised that Thatch is not more generally used. In a building nicely thatched, cheapness, neatness, simplicity and durability are combined.

My practice differs a little from that described by J. C. S., and may be better.

In the Southern part of England, where thatch is generally used as covering for buildings and stacks, instead of the straw being preserved straight, it is prefered "rough and ready." In the first place, shaking it up in a heap with a fork, layer after layer, watering each layer with a watering-pot, or throwing the water broad-cast with a bucket. Then commence to draw out the straw, and prepare it for laying on:—first by grasping it by the ends between the hands, and drawing it out of the heap, laying one handful beside the other, until you get out as much as a man can conveniently carry; then commence to straighten it, by standing by the side of it, and drawing it towards the legs, by beating it with the hands, working the hands something like a person swimming. By so doing, the straw is brought into layers, from four to six inches thick, about two feet wide, and three or four feet long Pull out the loose straw from the ends of the layers, and place the first layer across a stick about thirty inches long, putting the layers one upon the other, until you get as much as you can carry up to the roof. Then place a stick across the top, and secure the two sticks together with a piece of stout string passed over the ends, making a square bundle of it, and it is ready for carrying up for use.

Then proceed to put on the layers in the manner described by J. C. S., taking care to join the second course well with the first, and so on as you proceed. Comb each course down as you lay it on.

The comb or rake to be used should be a stout piece of wood, say five feet long, one and a half inch square, with round iron teeth sharp pointed, about three inches long, and two and a half inches apart, the one end of the piece of wood to contain the teeth the other to serve as a handle.

Each course is secured as you go along just as described by (J. C. S.), and clipped off even at the bottom. By this mode of preparing the straw, the building or stack can be made to look much more even and neater than when it is tied in bundles.

Now, sir, I have done the best I can towards describing the mode of preparing the straw, &c., believing that where many ways of doing the same thing are offered, one will be found the best. I hope others will give their practice also. For my own part, I could show you how to thatch a building or stack much easier than I can tell you in writing.

An English Thatcher.

OSAGE ORANGE TOPIARY WORK.

BY R., GERMANTOWN, PA.

Although every one is aware that no plant bears the shears better than the Osage Orange, yet I am surprised that it is so seldom used for the decoration of formal or Italian gardens or topiary work.

If due attention is given to summer pruning, which has the effect of checking the otherwise rampant growth of this plant, the finest effects may be obtained. Last season, whilst passing through the neatly-kept grounds of the Editor of the *Horticulturist*, the estimable proprietor asked me, in a jocular manner, what I thought of that specimen of *tree box*, pointing to a beautiful verdant hemisphere at the opposite side of the garden. After I had expressed great admiration of it, he informed me that it was an Osage Orange that had been but a very short time under treatment. He also informed me that he intended, if possible, to surmount it with the figure of an eagle or bird, and the *legs* were then visible in the form of two shoots, which had been allowed to grow from the apex of the globe.

I merely mention this fact to show how easily it can be brought into any desired shape, and to urge upon your readers to experiment with it.

Yours respectfully, R.

THE FRANKLIN GRAPE.

BY J. A. NELSON.

Mr. Editor:

I am very much pleased with the fact that our Horticulturists and the practical minds of the lovers of fine fruit are exchanging their ideas so freely in the *Gardener's Monthly* for the common benefit of all. It may be the means of bringing into an acquaintance all, I might say, of the Horticultural family. Fruit culture and the introduction of new fruits have never received greater encouragement than at the present time, especially as regards our native and hardy kinds. I have no doubt we have some seedling or native fruit, particularly apples, that never have been propagated or brought into notice, that are hardy trees and better bearers than a great many old varieties that have been long before the public. This is, at least, my own experience. I have given, for the last fifteen years, a great deal of attention to the culture of fruit, and testing of most all the new kinds of Apple that have come into notice; also experimenting on seedlings of my own raising. I might say the

same in regard to Peaches. Grapes, however, I have done but in rather a small way, owing principally to the abundance of wild grapes abounding in our native forests; but our woodland now is getting into very small bounds, and the wild grape is getting scarce, so that we will have to cultivate them more if we want to have them to use freely.

Mr. Garber, in noticing the Franklin Grape in the March number of the *Gardener's Monthly*, has brought back to my recollection what I have heard a great many years ago from some of the old settlers there. My father was one of the oldest settlers in the town of Franklin, having moved there from Huntingdon County in the year 1800, and in the year 1810 he moved back to his old residence, and during his lifetime I have often heard him speak of the abundance of French grapes, as they called them, that grew near where the French fort or garrison was. If I am not mistaken, it was on the banks of the Allegheny River, just below the mouth of French Creek, and near the place where the town of Franklin is located; but at the present time in all probability scarcely a vine of them could be found. As the Allegheny Mountains are some distance from Franklin, and French Creek being up the river from the old garrison, so that the floods could not have washed and drifted the seeds up, in all probability the Franklin Grape is different from the old French Grape there formerly. But, however, at the present time, here and at the distance of 25 and 30 miles from Franklin, we have a number of very old vines, that are generally called a French Grape. They can be found growing wild, and, in some instances, they have been cultivating them. They, however, may be nothing more than native seedlings. The size of fruit is between the large Fox Grape and that of our common Frost Grape. Some of them when perfectly ripe are tolerable pleasant and sweet, and others, again, very juicy and acid, with quite a Foxy taste. All are generally good bearers, and no winters ever injure them.

A considerable portion of Mercer County might be considered good for the raising of all kinds of fruit, as we never have failed for the last twenty years, but we had more or less annually.

The fruit department at our County Fair last fall was well represented, and quite a contest for the premiums took place. At the State Fair at Pittsburg in 1856, for the best collection of Apples I was awarded the silver cup, and at the State Fair at Pittsburg last fall, for the best collection of Apples and Peaches, I also took the highest premium. I merely mention this fact that you will understand that we have been making some progress in the fruit business in Western Pennsylvania.

Yours respectfully, J. A. Nelson.

Mercer, Pa., March 15th, 1859.

FLOWER MARKETS.

BY J. R. S.

Our Municipal Governments should set apart places for the sale of plants and flowers. Whoever has visited Paris could not but be struck with the beauty of the Flower Markets, (of which there are some seven or eight,) particularly those on the Esplanade of the Madeleine and on the *Quaies* of the Seine. The business has now attained an importance in this country that demands such an accommodation. It appears to me that the Monthly Exhibitions of our Horticultural Societies would be better attended and more interesting if gardeners were allowed to offer plants, bouquets, &c., for sale after the exhibitions. Yours, &c.,

J. R. S.

EVERGREEN HEDGES.

BY NORTH RIVER.

Dear Sir:

In one of your recent numbers I read an article on Pruning Evergreens, which much pleased me. I hoped you or some of your able contributors would continue to write on the subject, as it seems so much could be said about it that has never, I think, been elucidated by horticultural writers before. I have not, Mr. Editor, had the same opportunities many of the contributors of the *Monthly* have had, of profiting by the experience of able men in the more advanced stages of gardening. I have had to shape my practice by what I have read, and by what I may have been able to learn from Nature herself.

By putting in practice what I have observed and read, I have learned many things, some of which I think may be new to many, though quite probable not to yourself or to other experienced practitioners.

In regard to Evergreen hedges, I once made an observation which I am satisfied is a sound one,—namely, that light has much to do with forming a perfect hedge. Round the south and west end of my garden I planted, some years ago, a row of hemlocks taken from the woods on my farm, and moved with great care, for the purpose of making an ornamental live fence. Twice every year, in spring and fall, I had it dressed into a square-headed form. Every year it grew stronger at the top and weaker at the bottom, till, at the end of five years, it presented the appearance of fig. 1.

Fig. 1.

Well, on my farm I have a white Oak, which ten feet from the ground branches out into many strong arms, and forms one of the most regular and symmetrical heads one could wish to see. I could not but ask myself why this tree was so beautiful, as compared with others grown thickly together in the woods, and the answer was satisfactory, that all the branches crowd up to the light. The Hemlock itself, whenever found growing by itself, invariably retains its branches close to the ground, and these, too, as luxuriant as any growing on the top of the tree. And why not, said I, grow the same in a hedge if the same care is bestowed to give them the necessary light and air?

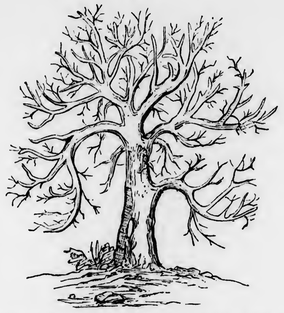
Satisfied that I was right in my conclusion, I rooted out the miserable things, and replaced them with others in all respects the same as the first. This time I trimmed them in a somewhat conical form, choosing the same seasons for the operation as in the former experiment. When about the same period of time had elapsed as in the instance represented in fig. 1, the new hedge represented the appearance of fig. 2, and was in every respect perfect.

Fig. 2.

Much as my observations and reasonings had led me to expect from my experiments, I did not expect the result would turn out quite so well. By my mode of training, every part of the surface of the hedge stood a fair chance of exposure to the light, and thus, of course, kept it always in good health.

I have since noticed many curious effects of light on the branches of trees. If a tree is trimmed up high, or in any way loses its branches up to a certain point, the branches—at least, the lowermost ones—assume the habit of weeping trees. When the tree is covered with foliage, and the lowermost branches are of course considerably shaded, these last, instead of trying to force their way through the dense mass above them, go right down towards the ground, and "out under" the tier of branches above them, and "as the twig is bent the tree's inclined," remain "weeping" ever after.

Fig. 3.



Until this explanation occurred to me, I was at a loss to understand how so many trees of upright habits had so frequently recurved branches. In the Apple and the Pear, whereon I had the most frequently noticed this, I referred it to the weight of the fruit; but when I saw the Bas wood, Tulip tree, and other trees with light fruit present the same appearance, the "light theory" came to my rescue and explained all.

[We shall be pleased to hear from you often. So rare a combination of observation and sound theoretical reasoning will not fail to produce much of great value for our columns.—Ed.]

PEAR CULTURE.

BY T. W. FIELD, NEW YORK.

Mr. Editor:—

Dear Sir—In your March number I notice a remark under Mr. Pearce's letter, that suggests, rather than asserts, that you did not receive advance sheets of the Pomological Society's proceedings. I am very confident of having sent them to *you*. I certainly procured them and mailed them to Philadelphia, intended for you. Whither they have gone, only the evil genius of the *Post* can say.

The communication from Mr. Bright is conceived in so kindly a spirit of criticism, and written with so much intelligence, that I cannot allow him to retain a misapprehension upon the subject, nor omit to confess that there is just grounds for his stricture upon the article on Trenching and Manuring in Pear Culture.

I have not hitherto noticed any of the critiques upon my *brochure*, for several reasons; principally because I was heartily tired of writing upon the subject, but occasionally, because they were ill-natured, or written by those who had little interest in the subject. To Mr. Bright let me say, that he has given me the first misgivings upon the policy of what I had written, and that I confess his view to be the most philosophical regarding pear culture.

Still I must do myself the justice to say, that the great expense I recommended was qualified in several places in the book, by stating that it was the extreme of high cultivation, and that I felt it necessary to explain the processes by which the very highest result could be reached.

On those wretchedly light soils which it has been my fortune to cultivate, much less labor would scarcely secure success.

Pear cultivation is yet in its infancy, and certainly offers a range of experiments, and an extent of progress, which no other fruit possesses.

The Apple has long since reached its ultimatum. The best varieties of apples have been in existence for fifty, or perhaps 100 years, (witness the Swaar, Newtown Pippin and Spitzenberg); while few pomologists believe that we have anywhere near approached the perfection of the Pear. It is evident from all that has been said of this fruit, that the question of Pear on Quince stock, or on its own roots, is one of locality and culture.

My neighbor on the north, although a very skilful gardener, has never succeeded in raising Cabbages, while my neighbor on the south is eminently successful in raising that rather fickle vegetable, but fails constantly in growing Celery, which his comrade grows with great profit. Can either say with fairness, that it is impossible to raise the favorite plant of the other with profit?

Let us all make those concessions of our incapacity, which are so evident to all, without feeling our vanity so dreadfully wounded.

In summing up all the testimony and arguments in the case of Pear *versus* Failure and others, we must arrive at the following conclusions:

1st. The finer varieties of the Pear will not endure, in their earlier years, all the neglect and ill-treatment which other fruits would survive.

2nd. The Pear on Quince roots requires for a few years, more assiduous care than on its own roots.

3rd. Though the range of Pear soils and climates is very large, yet not all of them are equally well fitted for it, and some prove decidedly hostile to the growth and fruiting of the tree.

4th. That the Pear has proved as generally successful as any other fruit, and very far more so than the Peach, Plum, Cherry and Grape.

Respectfully yours, Thos. W. Field.

New York, March 29th, 1859.

MARLY-LE-ROY.

BY JEAN BERNOUILLET, NEAR RALEIGH, N. C.

Revolving in my mind how I could offer my mite towards the building up of the *Gardener's Monthly*, I bethought me that I know a good deal about the royal haunts round Paris, having served as a gardener there many years ago in the Royal Gardens. Such a topic might interest part of the general public of the *Monthly*, and, in particular, the "landscapers."

Marly is the result of a whim of the *grand monarque*, Louis XIV. That sovereign, who considered himself the centre of the civilized world, and who, indeed, not only ruled France, but also ruled the rulers of England, of Spain, of Italy, who kept the Netherlands in check, and overawed Protestant Germany,—that sovereign, like so many weaker mortals, considered himself entitled to some play.—Sometimes his recreations took a high character, for instance, furthering and regenerating literature and arts; sometimes his flight was low, in imitation of Ovid's gods. He had built that vast and splendid pile, Versailles, which, after so many succeeding works of a similar character all over the world, is still the pride of France and the admiration of critics. But from very satiety of splendor, feasts and revels, he began to get tired, threw himself into the opposite extreme, praised the life of a hermit, and so, one fine morning, without letting the court know, he leaves Versailles, takes with him but a few men of taste, and roams about with the eye of a landscape-gardener. As they ride along they criticise, and at Lucienne, near Bougival, Cavois points out a spot worthy of a royal residence.

"It is too fine," says Louis, "and it would ruin me. Besides, that is not what I want. I want a mere nothing,—a cottage, a hermitage where I might retire and shed tears, when I should feel inclined that way."

Cavois, a true enthusiast, breaks forth in new praise.

"Well," says the king, "if it *is* so fine, take it yourself. I give you the ground."

And Cavois really built, some time after, a charming little *chateau* on this spot. I have been in it, and I recollect having been shown, in the great hall, an old clock, which Cavois put there, and which the servant, with no small pride, called "la Cavoise."

The party rides on, over turnpikes, by-roads, through lanes where even royal horses cannot get along, and the king and courtiers must needs get out and stump it. Here they get into a small narrow valley, steep hills round, hardly accessible on account of swampy bottom, and no view. On the steep slopes of the hills, terrace-like, stand the miserable huts of the village Marly.

That pleases the king's fancy. "Here," thinks Louis, "I surely cannot ruin myself. Here I may build and play the hermit in good style."

Cavois ventures to remonstrate: "Your Majesty cannot possibly build here except at the east end. This valley is narrow, deep, steep,—a swamp into which all the gutters and cess-pools of the villagers above must empty,—a morass full of toads, frogs and snakes,—and, moreover, it is hard of access."

"That's the best of it. Nobody to bother me here. No room for the grand court, no luxurious improvements,—and I'll come on horseback here."

Hardouin Mansard approves of the king's idea.—An artist like Hardouin delights in difficulties, and he is the royal artist. Right on the spot he takes the commission to buy the ground and to set to work. A few days after he submits to Louis his plan. There was to be the main building, a pavillion, a flower-garden, and a shrubbery. A little later this was not quite sufficient,—a supplementary building was required; another lapse of a few months, and a second pavillion must be erected. In this wise, one improvement came after the other, until they had to cut space out of the hillside. A little bit of a view was also gained by considerably widening the mouth of the valley.

About a twelvemonth or so after the last and final improvement, Cavois, the noble courtier one morning admitted into the royal presence, finds the king bent over a map. After a while the king looked up.

"Is that you, Cavois! You come *apropos*. You recollect Marly. I was hunting yesterday, and alighted at Marly. It is abominable."

"Ah! sire," says Cavois, "take back Lucienna.—Next to your giving it to me is the pleasure of taking it back of me. It ever *is* a royal spot."

"Par la Sainte Anne!" exclaims the king, "but I want Marly. I have sent for Mansard already."

Mansard comes,—Mansard the great architect, to whom, by-the-bye, we owe that sort of attic called after him, "Mansarde."

And now, dear reader, if I had yon on the ground you and my old maps and plans, I could show you the changes, the improvements and the disimprovements made in Marly. You would be astonished at the wonders which a royal command of those times, and the ingenuity of artists could accomplish. But I must not go into details, and so I will briefly say that there was no end of alterations. They were dropped and taken up again, as the mood (and possibly also the finances) of the king directed him. There rose buildings, statues, fountains, aqueducts; there rose ready-grown forests and parks. For, by the royal authority, whole regiments of laborers were enrolled and commanded in military style and discipline.—They brought large trees by the thousands from Compiegne and further off. Three-fourths died; but what of that? they were as quickly replaced. At another time large tracts of natural forest were cut down, and as large sheets of water made instead, and the courtiers took the ladies a promenade on the lake, where, not long ago, the sky was hardly visible through the dense forest growth. Then, again, the same sheets of water were filled in again, and a forest planted, and planted so thickly that again you could not make out the sky in it. (I quote here St. Simon, who speaks from his own knowledge.) The same with walks, flower-gardens, drives, parks, terraces, and game preserves.

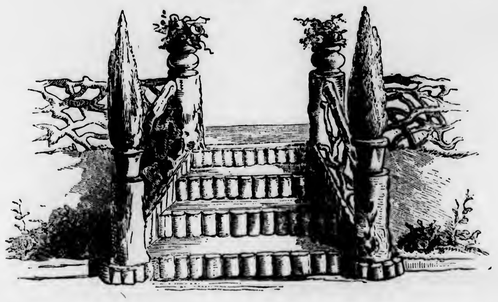
The king acted the landscape-gardener; but, instead of drawing with pencil and wiping out with India-rubber, he put down and wiped out *the reality*. Nor could he satisfy himself, so that this Marly-le-Roy or royal Marly, which was to be a mere *pied a terre*,—a mere cottage—an humble hermitage for a kingly and repentant sinner, which was to cost next to nothing, in reality cost millions upon millions, as much, and more, perhaps, than glorious Versailles. Happy are we who live in the good *new* times. The race of arbitrary rulers has died out, but the race of artists still lives.

GARDEN DECORATIONS.

BY S. W.

In looking over some sketches of garden decorations by H. Noel Humphreys, the celebrated English Rural Architect, I found the following beautiful design for a flight of steps for a garden terrace. See fig. 1.

Fig. 1.



This would have a very pretty effect anywhere, but would be particularly useful in a part of the country where stone is not to be had. The steps and sides are formed of pieces of red cedar, or other durable wood, with the bark on, driven down a foot or more in the ground, and the balustrades of sections of the trunks of trees, with the bark on, surmounted with flower-vases, and crooked branches interlaced.

I also send you a sketch of a mode of training plants in pots, which I have found to produce a good effect. See fig. 2.

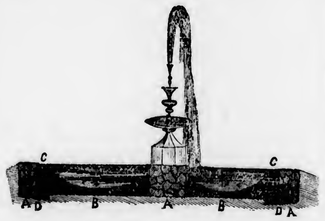
Fig. 2.

Procure a cedar, or other sapling, about 5 to 6 feet long, and with a drawing-knife shave off the one end so that it will pass through the hole in the bottom of a 10-inch flower-pot. Then plant this sapling firmly in the ground, and put on the flower-pot, with a small circular piece of inch board under it to steady it. Then make a trellis of wire, as shown in the drawing, and secure it to the end of the stake and also to the pot. Before securing the trellis, the plants (which should be of rather a trailing character, such as Verbenas, Heliotropes, Petunias, Cupheas, &c.) should be planted in the pot, say four or five in each pot. The plants, when properly trained, will entirely conceal the trellis and pot, and present the appearance of a weeping tree or shrub.

One of the most beautiful and graceful ornaments that can be introduced into the pleasure-ground is a fountain, and I have often been astonished to find it so little employed in situations where an abundant supply of water can be obtained. Many are deterred from introducing one, from an idea that it is very expensive, and that the construction of the basin is attended with considerable difficulty, and that it is necessary to employ experienced persons for the purpose, and also that it requires a very large supply of water. I will endeavor to show that none of these objections have any real weight.

Last season, with the aid of one ordinary country stone-mason, who could also lay bricks, and an assistant, I erected an iron fountain, with the basin, which has perfectly answered my expectations. I proceeded as follows: I selected a suitable situation, had the surface-soil removed to the depth of two feet, then planted a stake in the centre, and with a piece of garden line 12½ feet long described a circle of 25 feet diameter. I then lengthened the line 16 inches, and described another circle. These two circles are inner and outer lines of the stone wall *A A*. See fig. 3.

Fig. 3.



This stone wall should be about a foot higher than the required depth of water in the basin, to allow for the material used in laying the bottom. Inside of this stone wall, but leaving a space of about three-quarters of an inch between them, is a 4-inch brick wall, and this space between the two walls at *D D* should be filled with a grouting of cement in a fluid state. The outer wall can be laid in lime mortar, but the brick wall should be laid in cement composed of one part of Rosendale, or any other good hydraulic cement, and two parts of pretty sharp sand. The grouting is made of the same proportions, but with much more water—about the consistency of rich cream. The pier in the centre should be built of stone or brick laid in, and plastered with cement mortar, taking care that the water-pipe is first introduced. After the outer walls and pier are finished, and the cement has had a day or so to harden, you can lay the bottom, which should be done as follows: Procure some good dry stone, such as is generally used on turnpike roads, and break it up to about the size of small hen's eggs, and spread it evenly over the bottom 9 inches thick. After it is packed down pretty solid by walking over it or passing a roller over it, pour on it a grouting of cement as above described. Do a small portion at a time, and pour on the grouting until it fills all the interstices and stands on the surface; then do another portion, and so on until the whole is finished. Leave this a day to harden, then put on some more broken stone around the outer edge and around the centre pier, so that the bottom will present the appearance as shown in the drawing; then grout this in the same way as before directed, and leave it a day to harden; then mix some cement about the same consistency as common mortar or plaster and plaster over the whole bottom and sides, leaving every thing perfectly smooth. In a day or two you can let the water into it. If stone is not convenient, the bottom may be laid with bricks edgewise in cement. An ornamental iron, stone, or earthenware coping to the brick wall at *C C* is a great improvement to the appearance, but it is not indispensable. A very beautiful pattern of cast-iron fountain, 8 feet high, and surmounted by a figure, can be procured for $45 or $50, and the stone, brick work and cement ought not to cost more than $125 where the materials are convenient. A basin of this kind is very convenient in a flower-garden for watering, and nothing has so pleasing an appearance on a warm day. In winter the basin should be filled with leaves or shavings, as a partial protection against frost, which sometimes injures the cement.

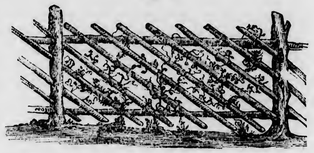
It sometimes happens that a tree dies in the pleasure ground. Instead of cutting it down, it may be made use of in supporting the roof of a garden-seat, as shown in figure 4.

Fig. 4.

A living tree may also be made to answer the same purpose; or the trunk of a tree planted firmly in the ground. The roof should by all means be thatched to produce a good effect.

I close this rambling communication with a drawing (Fig. 5) of a division fence, which can also be used as a trellis for the support of trailing plants, and make a good screen. Even a common pale fence made in this way, is less stiff than the upright one.

Fig. 5.



In furnishing these sketches, I have endeavored to confine myself to such as can be made by any intelligent gardener, with a few tools and at a small expense. Hoping that some one more competent will follow up the subject, I remain,

Yours respectfully, S. W.

ROYAL BOTANIC GARDENS, KEW, LONDON.

[As the subject of Public Parks, Pleasure-grounds, and Botanic Gardens appears at the present time to occupy, to a large extent, the public attention; we have procured from a friend on the spot a very full and minute description of the Botanic Gardens at Kew, London, as they now are, which we hope will interest our readers. For want of space, we are compelled to omit the early history of the establishment, which is quite interesting, for which we hope our obliging correspondent will excuse us.]

London, March 20th, 1859.

About the years 1840 and 1841 important alterations were made. The whole of the establishment, including gardens, pleasure-grounds, and the adjoining park were transferred from the Board of Green Cloth to her Majesty's Commissioners of Woods and Forests, at the time Mr. Aiton retired from the charge of the Gardens on the fiftieth anniversary of his holding office, and the present able Director, Sir William Jackson Hooker, entered upon his duties. Dr. Lindley had previously been deputed to assist in making a report upon the condition of the Gardens, and suggest how the greatest amount of public benefit might be obtained from them, which resulted in vast improvements being executed, not the least important of which was to throw the Gardens open every day in the week for the free admission of the public, which has since been extended to Sunday—a privilege duly appreciated by a grateful public.—Throughout the summer the number admitted on that day oftentimes amounts to 12,000 or 14,000 persons. It will give some idea of the increasing attractions when I state, that in 1841 the number of people admitted was 9174; in 1851—the year of the great Exhibition in Hyde Park—there were 238,900; still increasing until last season (1858), when the number amounted to nearly 400,000 persons.

A further grant of about 47 acres more land was added from the Pleasure-grounds to the Gardens for the purpose of forming an Arboretum, which is now well stocked with a choice and extensive collection of ornamental, deciduous and evergreen trees and shrubs. About 1847 orders were given to abolish the Royal Kitchen, Fruit and Forcing Gardens at Kew, and add them to the Botanical department, which at the present time contains about 75 acres, and the Pleasure-grounds about 240 acres. The noble Palm House was erected about this time on the grounds newly connected from the Pleasure-grounds. A neat wire fence divides the two departments, but in no way obstructs the view. The fact of any division is not visible until a very near approach.

Another important encroachment is in contemplation, which is to erect a house upon even a larger scale than the Palm House. It is intended for the accommodation of such noble objects as the large Brazilian Pines, Proteas, Banksias, Acacias, and other New Holland plants that have long been too large for the houses already allowed them, many of which have undergone the annual operation of decapitation. I am not at present in positive information, but I

believe the annual grant from Government for the keeping of the establishment is £16,000.

The number of now hands employed in the Botanical Gardens is 25 gardeners, and about 25 laborers, but the latter varies much according to the time of year—oftentimes three times that number are employed. The Pleasure-grounds employ a like number. There are two well-kept nurseries in the Pleasure-grounds,—one for forest trees, the other ornamental trees, &c.—for the supply of the gardens and public parks around the metropolis.

The gardeners are admitted as students for a term of two years. They must have previously served a certain length of time in some gardening establishment, and possess a tolerable practical knowledge of the profession. The amount of wages they receive varies from twelve to eighteen shillings per week, according to their length of servitude and merit. At the expiration of two years, if they have served to the satisfaction of the Directors and Curator, a printed form of testimonial is given them, signed by the above and stamped with the Garden seal.

An excellent library of Botanical and Horticultural books is available every evening (from 7 until 10 o'clock) to the student, snd every facility afforded them of gaining a sound practical knowledge of Botany and the cultivation of plants. Some little modification of the present arrangement respecting the students is much wanting. At present the young men are in lodgings in the villages around, where they are exposed to the mercies of unscrupulous lodging-house keepers, late hours and evil company. An easy and effectual remedy is available—to erect a comfortable home in the gardens, where they could be boarded and lodge, their hours regulated and their conduct and morals under the eyes of the heads of the establishment. Such an arrangement would be highly satisfactory to the student, both in a moral and pecuniary light. Some such system is much needed in the Botanical Gardens, and I know of no place better adapted for the successful carrying out of such a system.

Above I have attempted a brief account of the origin and progress of the Botanical establishment in as condensed a manner as possible. Though I fear it will possess but little interest to your general readers, perhaps a hasty glance through the various departments may better please, when I invite them to accompany me, and will note by the way a few of the most remarkable and pleasing objects.

The principal entrance is from the Kew Green, through a pair of magnificent wrought-iron gates.—Here is placed a keeper for the purpose of receiving parcels, &c., giving instruction and taking account of the number of visitors. Passing through it, a broad walk leads in a westerly direction through the Botanical department into the Pleasure-grounds. To the left of the entrance is the old Arboretum, which contains many noble specimens of rare hardy exotic trees and shrubs, as Kolreuteria paniculata, Juglans nigra, Quercus rubra, Q. suber (or Cork tree), a remarkable specimen of the Maiden Hair tree, Salisburia, half of which is the male var., the other half the female, grafted upon the same stock. To the right of the Arboretum is No. 1 Greenhouse, a handsome stone building of classic design, brought here in 1836 from Buckingham Palace by order of King William IV., previous to the erection of the Palm House. That noble family of plants were grown here; at present it contains a large collection of New Holland plants, mostly grown in wooden boxes, which are placed on the lawns and by the sides of the principal walks in the summer season, and are very effective. The most interesting are Banksias, with their richly-colored little brush-like flowers and gouty stems; Dryandras, a fine specimen of the truly remarkable Hand plant (Cheirostemon platanoides), so named from its finger-like flowers. This plant, like the Amherstia nobilis, has never been found truly wild. This specimen was raised from one found growing near a Mexican temple.

A little further on to the left is No. 2, the Orangery, built in 1761. It is 145 feet long, 30 feet wide, and 25 feet high. Like all similar structures of that period, it is mostly built of stone, and far too dark and small for its present occupants, which includes many fine specimens of Araucarias, Dacrydiums, Orange trees, &c. These, like the plants in No. 1, are mostly grown in wooden boxes, and are placed out of doors in the summer season. Many of the noble specimens in this house have been much disfigured by having the leading shoots cut back from time to time to get them into their winter quarters: A house upon a very large scale is in contemplation for this noble tribe, which are justly the admiration of all who visit the Gardens.

No. 3 is situated to the extreme north of the glass structures, a lean-to House, with a north aspect. It contains a collection of nearly 200 species of Mesembryanthemums. There are but few examples in this genus worthy of cultivation beyond the limits of a Botanical establishment. In the summer these are placed out of doors, and their place occupied with very interesting objects, as rare herbaccous and Alpine plants in pots, new annuals, and suspended from the rafters are some interesting plants, of Irish Ivy, with the parasitical plant, Orabanche, growing upon it. Those were the first examples I had seen of this plant being propagated artificially.

No. 4, a span-roofed pit, running from north to south, for the propagation and growth of orchidæous plants.

No. 5, Orchid House,—an ill-adapted structure for the purpose, as the poor appearance of the inmates testify, and has hitherto baffled all skill. The collection is extensive, and contains many good and rare species, the liberal donation of several eminent cultivators. The most essential point in the cultivation of those plants is to maintain a regular moist and warm temperature throughout the summer season or season of growth. The contrary is the treatment they receive here. No porch or other necessary contrivance is applied to remedy the evil caused by the continual ingress and egress of visitors, causing a continual draught of cold air upon the plants. In fact, no tribe of plants are less provided for than this most important of all, more so, as their cultivation is fast giving way to plants more easy of cultivation and less expense.

No. 6, the Victoria House, is span-roofed, with a tank in the centre for growing this Queen of Water Lilies. A side stage runs round the house, filled with noble specimens of Pitcher plants, (Nepenthes,) amongst which are fine, healthy and large plants of Rafflesiana distillatoria, &c.; a collection of variegated and fine-foliaged plants, as Crotons, Marantas, Sonerilla, Phryniums, and Ænectochiluses, the remarkable Venus Fly-trap (Dionæa muscipula), Moving plant (Hedysarum gyrans), and the pretty little Pitcher Plant (Cephalotus follicularis). In the tank is a handsome specimen of the Lattice-leaf plant (Ouverandra fenestralis), where it has flowered and produced its seed freely. The new Nymphia gigantea likewise occupies a place in the same tank. This flowered here, for the first time, last summer, and proved to be an excellent thing.—The flowers are large, bright blue, and produced very freely, continuing for several days in perfection. The leaves are about 14 or 16 inches in diameter, dark green, mottled with brown. In two corners of the tank are plants of Vallisneria spiralis—one the male, the other the female, and by far the most interesting on account of its pretty spiral, thread-like filaments, carrying the pollen to the surface of the water. The walls are covered with Ficus barbata and F. sp. with very small leaves not more than half an inch in diameter. The rafters are covered with such climbers as Stephanotus floribunda, Aristotochia gigas, &c.

No. 7, the new Cactus House, measures 200 feet long, 30 wide, was built in 1856, is span-roofed, with beautiful wrought-iron girders the whole length to support the roof. It contains an extensive collection of Cactuses, Aloes, Euphorbias, Stapelias, Crassulas, Sempervivums, &c. Here are several large plants of Cochineal Cactus covered with the insect. The rafters are covered with Tacsonias, Passifloras, Kenneydas, &c. This house has an imposing appearance inside, the plants clean and healthy and neatly arranged according to their natural affinities; in fact, this system is carried out as far as possible in every department; in some cases, I think, rather detrimental to the well-being and appearance of the plants.

No. 8 was erected in 1760—at that time considered a very Crystal Palace; now become shabby and delapidated, and no doubt ere long will be brought to the ground. It is a lean-to House, measures 114 feet long. It is at present occupied with Chinese and Japanese shrubs. This was the first house erected in the Royal Gardens, and previous to the erection of the large house, was used as Palm stove.

No. 9 is a small span-roofed house for the growth of young Palms, rare and newly introduced plants. It contains several novelties, which I shall speak of hereafter.

No. 10, the Australia House, is in the shape of a cross, span-roofed, 152 feet long and 22 feet wide; the two side wings measure each 80 feet long by 22 feet wide. The whole is neatly fitted up, and well adapted for growing plants. It is crowded with Acacias and New Holland shrubs. In their turn these are stood out of doors, and their place occupied with soft-wooded greenhouse plants, as Fuchsias, Geraniums, &c., and is at all times gay.

BRASSICA RAPA.

BY J. MCR.

Your correspondents have written on the cultivation of a great variety of bulbous flower roots, such as Tulips, Hyacinths, Amaryllisses, Cyclamens, &c., but none of them have touched on the *Brassica rapa*, an entirely new *greenhouse* flowering bulb. Although I doubt whether you will find any of the bulbs for sale in our most extensive collections of exotics, yet, strange to say, the price is extremely moderate, bringing it within the reach of *all*. The flower is a beautiful lemon yellow, somewhat resembling the Alyssum saxatile, and when introduced in a bouquet, has a charming effect.

It is a very free-bloomer, and requires very little heat, in fact, only protection from frost. When kept cool, however, do not over-water it. The only objection to it is, that if left to itself, it grows rather tall for an ordinary small greenhouse or pit, and sometimes falls over; but this can be easily prevented by cutting it down half-way to the ground, when it is about three feet high. This makes it throw out laterals, and increases the quantity of bloom. As many of your readers may not recognize it by its botanical cognomen, I will give them the name by which it is generally known, which is the *Turnip*.

Now, methinks I see some of your fair readers throw down the paper with a slight curve of the lip, and exclaim, that "the next thing will be to recommend the cultivation of cabbages, radishes, &c., in greenhouses for the flowers, and to substitute cauliflowers for bridal bouquets, perfumed with Double Extrait de Sour Krout." Not quite so bad as that, although I am not sure that cabbages and radishes will not answer the purpose as well as turnips, and I intend to experiment with them. But seriously, I have found the turnip to be quite an attractive object in the winter; the beautiful yellow of its flowers is rare and much needed at that season, and it may often be used to fill a vacant corner of a house. It will bloom in a moderate-sized pot, say 8 to 10 inches.

Yours very truly, J. McR.

Bloomingdale, New York.

PEACHES.

A Southern correspondent of the *Homestead* says:

If it should run out entirely at the North, as many fear, we shall be able to drain unlimited supplies from the Southern Atlantic States. The New York market was a great deal affected by southern supplies of this fruit last season, and the production in the Carolinas and Georgia will be likely to increase, as the orchards of New Jersey and Delaware fail.—Among the best varieties for this climate are the Bellegarde, Early York, George IV., Royal George, St. John, Yellow, St. Stephen, and Tillotson's Early.

The Gardener's Monthly.

PHILADELPHIA, MAY 1, 1859.

☞ All Communications for the Editor should be addressed, "THOMAS MEEHAN, Germantown, Philadelphia," and Business Letters directed to "THE PUBLISHER OF THE GARDENER'S MONTHLY, Box 406 Philadelphia."

THE Publisher particularly requests that Advertisements should be forwarded so as to be received before the 20th of the month, or otherwise they cannot be inserted.

SUMMER MANAGEMENT OF THE GRAPE VINE.

EVERY one who has a garden has a grape vine; but not every one who has a grape vine knows how to manage it. We propose to say a few words on the subject for the benefit of our amateur readers, especially as the season is now approaching when the vines will require their chief attention.

"How strangely you talk!" we fancy some of our friends exclaim; "the season is now approaching!—why, we thought winter was the time to prune grape vines!"

That is all very well; winter is, to some extent, the time to prune grape vines,—but the skill required to perform the operation at that season is not a tithe of what the grape vine expects of you in the way of *summer pruning*.

Did it never occur to the pruner how absurd was the idea of allowing a vine to produce a great amount of wood for the mere fun of cutting it away again in the winter? Can nothing be done to avoid this waste of wood,—this abuse of the productive energy of the plant? To a great extent it can, and that by the process called summer pruning.

First, let us consider why we prune at all. We plant vines partly for their shade, and partly for their fruit. If left to grow as "doth to them seem best," two or three strong shoots will take the lead over the others, and go off like a rocket to the top of the house, arbor, or trellis, on which they may be trained. These powerful shoots, having once got the ascendency, like other beings in the animal department of our planet, seem to strive to keep the others down,—"the rich become richer, and the poor poorer," until, before many seasons are over, the weak branches die away entirely, and their assassins are left masters of the field.

Now, this is a very unsightly affair, to say nothing of its inconvenience. To have a vine for shade, that gives no shade, because we have allowed all the leafy shoots to congregate on the highest pinnacle of their glory, is bad enough; but to have the luscious, tempting fruit so very far out of our reach besides, is enough to give them a very *foxy* character, though they might belong to one of the purest of the pure varieties of the genuine *Vitis vinifera* itself.—From this we can learn *why* we want to prune. We want to balance the strength of the vine. We want to prevent the strongly inclined shoots from getting more than their share; and to do this we lay a sort of tariff on them, which somewhat shackles their movements, and allows their weaker brethren to overtake and run evenly with them. Every part of a plant is thus brought under control. The trellis is fully clothed with foliage from top to bottom, and the lowest and humblest shoot in that vegetable commonwealth holds up its head as vigorously and independently as the most favored by nature, with a position at the top of them all.

And now for this theory of protection. It is necessary to explain to the reader that the more severely we prune a grape-vine shoot—or any shoot—in *winter*, the *stronger* it will grow the next year. On the other hand, the more we prune it in *summer*, the *weaker* in proportion it becomes. If we cut down a willow in winter, the next summer it will make a growth of five or ten feet; but if you cut it down after it is in leaf, it will throw out but a few weak shoots, or probably die altogether.

This seems very incomprehensible on the surface, but, with the help of Physiology, can be made very clear. For instance, as soon as the leaves fall in the autumn, the tree, in a certain sense, hybernates,—it needs no air,—it does not *breathe*. But as soon as growth commences, it must have all this. Like an animal, it lives by breathing; and to effect this, it puts forth leaves. It breathes through its leaves.—They are, in fact, its *lungs*. The sap is, indeed, drawn into the plant by the roots, just as food is taken into the system by the mouth of an animal,—and, after being rough or crudely prepared in the tree, is finished off by being passed through the leaves for contact with the air, precisely as blood is passed through the lungs of the more highly organized being. So it is clear that if the leaves be stripped off, we prevent the plants breathing; we injure its lungs, bring on a species of consumption, which will rapidly send the plant, if the practice be continued long, to an early and lamented grave.

We will suppose a vine two years old, and with a cane that at the last winter pruning has been left 8 feet long. From the eyes or buds on the top of the cane shoots will push, which in the fall will be perhaps half an inch in thickness, while those from the buds nearest the ground will probably be less than a quarter of an inch. This is Nature's way of working, which, in this instance, we must decidedly object to.

So, when the shoots from the top of the cane push, and have reached about three feet in length, we pinch off the strongest one to about four joints or leaves in length, the next strongest about five joints, the next six, and those we wish to strengthen, not at all. A few weeks later the shoots so pinched off will commence to push on again, but this time weaker than before. They will now have to be watched. If the last formed shoot seems to grow only as strong as the lowermost ones, so well; the object has been gained. If, on the contrary, it still pushes with greater vigor, stop it again, till it becomes what you wish it to be.

To get shoots *where* we want them, and *as* we want them, is the only object of summer pruning grape vines. Many other kinds of fruit trees, if they grow freely and vigorously, will not bear fruit. The wood-producing and the fruit-bearing principles seem antagonistic; and summer pruning such free-growing trees, by weakening the wood-producing power of the tree, throws it sooner into bearing. But it is not so with the grape vine. The stronger and the healthier the wood can be grown this season, the finer will be the fruit the season following.

We are ranked amongst "the meekest, mildest mannered men," but how it angers us at times to pass a vigorous healthy vine in July, and to see some ugly bifurcated animal, in pants and shirt sleeves, tearing away at the young leaves and shoots of the plant without the shadow of a reason, with all the ardor of a delightful pastime, and till scarcely any foliage is left on the vine. *Ain't I admitting the sun and air freely through the plant in order to ripen its fruit? Without reason? Eh!* Softly, my misguided friend. It is not merely the sun and air that ripens your fruit. It is the office of the leaves to do that; and the finer and healthier the leaves of your vine, and the greater the amount of these healthy and vigorous leafy appendages, the better will your fruit ripen, and the finer will it be in all respects. Have you never noticed how a vine rejoices when it can steal among the branches of a lofty tree far out of the reach of your exfoliating fingers? Did you never see how some uncared for specimen, which never in its infancy had the advantage of an "expert" to care for it, and recommend some "warm and sunny" spot as the very place for its future welfare; did you never see how in that neglected shady spot, where the mid-day sun in vain could penetrate, and the life-giving rays of the morning sun broke in only in winter,—where

> "Plants at whose name the verse seems loath,
> Filled the place with a monstrous overgrowth,
> All berried, and pulpy, and blistery, and blue,
> And livid and starr'd, with a lurid hue,
> Where agarics, and fungi, and mildew, and mould
> Started like mist from the damp ground, cold;"

and yet where the plant seemed to revel in perpetual healthfulness,—the fruit to color to perfection, and the canes to live to a fabulous age and to attain to quite marvellous dimensions. And all this, not because of the shade *per se*, but because the thrip, and spider, and the myriads of insects that love to bask in the summer's sun; and the mildew, or blight, or *oidium*, or whatever you call it, that loves to spread itself where drought and moisture in the air, or extremes of heat and cold rapidly alternate, do not find a foot-hold.

The leaves—the leaves—take care of the leaves. Never remove for any other purpose than to weaken a strong-growing shoot. So shall your vine luxuriate and bear fruit, and afford you a grateful shade, free from most of the ills the grape vine is heir to; and if in its nature a spark of consciousness exist, that atom of mind will expand with a fervid warmth of gratitude to the writer of this article for saving it from the barbarous treatment it may have been heretofore subjected to.

SHRUBBERY.

WE have of late been oftener addressed about laying out and improving gardens, than we could find time to reply to properly. At any rate, we were forced to cut our reply short when the writers' queries concerned more the philosophy and the abstract of the art than their application to a distinctly described plot of ground.

This brought to our mind the idea of now and then giving our views of the details of landscape-gardening in these columns.

And we single out shrubbery for this article, because it would appear to us that this class of ornamental plants is least known to the public at large. A city man wants to pitch his tent outside the gates, and these days of horse and steam-cars fairly threaten to bring the city into the country,—or a farmer actually comes to think he might do a little towards appearance and beauty in the surroundings of his house, what else presents themselves to their minds but flowers and trees?

Quite natural, too, for crude minds who are only impressed by the colors of the flower or the grandeur of the tree, and have no eye either for effect or for detail. Mention the word "shrub," and they look upon it as something inferior, as by-play, as not at all essential to their purpose. They want something to look "big."

We will therefore try to show the value of shrubbery. Let us suppose that we have to deal with several acres, which are to be laid out, or, if laid out, are to be improved by planting. Now, flower-beds judiciously planned, placed and executed, are well enough, but by far the greater part of the ground is to be park or park-like. You have large trees in abundance, we will say. You cut paths and drives through them, you open clearings, perspectives, and use a good deal of newly-awakened ingenuity, (reader, bear in mind we speak not to the initiated,) still, with all your efforts, the grounds seem and are monotonous. It is a forest, at best a grove. Look close and you will find that either the trees are not diversified enough in kind, or the ground without much variation in surface, or running water missing. In all probability, however, you will find that the trees are too much of one age, and offer the eye no variety in outline and effect. Now, how remedy that?—Simply by offering more foreground to the spectator; in other words, cut down a good many trees, so that the rest may be seen to better advantage. And let the fringe of the woods remain jagged, so that the leafy line runs in and out, that the clouds may run their broken shadows playfully on it, that the sun may hide behind the green promontories, that the fresh grass may, bay-like, run into the plantation. Bring into prominence old trees by cutting away the rabble round them; young trees by isolating and clumping them, that they may show like a juvenile party, and not stand meaningless among their elders. And—we have arrived at the point now—bring out your shrubbery. It is that which is the link and the transition from open space and green grass to forest growth. It is shrubbery by which the comparatively blank space of turf and the tall occupants of the soil are best measured, by which they both get their value, by which they both are best set off, and by which their contrast is best and most pleasantly felt. All this is of tenfold force if you have to deal with level ground where Nature did not bring you variety as her gift. But even where the introduction of shrubbery is least necessary, it will still improve and heighten the romance of the grounds.

Suppose, now, we have to deal with a half-acre lot. Here shrubbery rules omnipotent, and the tall trees have to play second part; for what else, dear reader, do you want to create round your house but a small and fair epitome of Nature, a short abstract with the best points in it. To be sure for immediate effect, you will plant all manner of young trees, and in this you are right. But one single Pine or Elm will, when grown up, give you probably more shade, darkness and dampness, for that side of the house than you wish; and it will not "live and let live" the smiling grass now round its base. Your place will *not* be that epitome and short abstract wished for, but will be only so many trees of lank trunks and rigid countenance, with a house standing gloomily amongst them. And now take to shrubs, planting a tree only where you want *actual shade*. Dispose of the shrubs as if you had a five-acre lot and as if *they* were *trees*. Avail yourself of the great difference in height and shape amongst them. Look how they will frame and dimple your *large* lawn, (for you must have a large lawn, be your place ever so small,) since you will remove or cut them down when they get too big.—Look how they will consort so gracefully with your flower-beds, which trees will never do, not even young ones hardly. And look what a finished appearance, nay, what a semblance of vastness, they will impart to your cherished little home! Try them, and you will dispense us from saying more about them.

FRUIT IN THE WEST

CHARLES KENNICOTT, Editor of the *Prairie Farmer* at Odin, Illinois, writes us:—"Furious snowstorm here this morning (April 4th), and mercury now (noon) standing at 33°. Our peaches are just beginning to set; do not think they will be injured."

J. E. STARR, Alton, Illinois, writes us, April 5th: "Our season has been very forward. Peaches are in full bloom, but all killed. The night of the inst. the wind veered round to the N. W. Thermometer 26°. Sleet and snow. The sleet wet the fruit, and the severe cold finished it."

L. SMITH MOTE writes from West Milton, Ohio, April 6th:—"The past two nights' freezing, I fear, has killed much of our fruit—*peaches, forward cherries*, &c. Ice formed a half an inch thick in places. A seedling Cherry I raised from American Amber (earlier than parent) blooms so early that the fruit is often killed now; for two years past nearly all have perished."

DR. UHLER'S MODE OF RAISING HEAT.

WHEN we first received our valued friend's favor, though the principles propounded by him had evidently been practically tested, we determined to experiment a little ourselves. Not that we expected any other result than that described, but in the hope that some incidental observation might be made, of additional value to those already detailed in our columns.

Before proceeding to experiment ourselves, we waited to hear from our friends who had proposed to try the new mode, in order to profit by their failures, if any. We have since received accounts of a number of results, in all cases but three perfectly satisfactory. In one of these instances the experiment is reported an entire failure. Tan *fresh from the vat*, was employed, and though a large quantity of glue-water was used, no heat was obtained in a reasonable time. In another instance, the writer reports the glue-water entirely successful, "but the cost of the glue-water was a serious objection." The other case alluded to, reports that blood was employed, "with entire success so far as the heat was concerned, but creating such an abominable stench as to be perfectly unendurable."

In our experiment, we purposed to try to study all these instances. We thought it probable that fresh tan might not be so well adapted to the purpose as partially decayed vegetable matter, so we took for our "subject" *oak sawdust*, that had lain a year near an old saw-mill. We built a wooden pit in a greenhouse, to hold near two loads of the material. Then we got a wheelbarrow full of *hoof-parings*, from a blacksmith shop, that had lain in the snow for some time, mixed it with the saw-dust, and then waited the result. Two days after we inserted the thermometer, and found it 45°. Three days after this, the thermometer indicated 88°. We were much pleased with the result. "Here," said we, "is something cheaper than glue-water, and without any of the offensiveness of blood." But in two weeks the heat began to decline, and in four weeks from the time of starting the pit, the heat had descended to 55°, about the temperature which, with the aid of fire-heat, we had kept the house. We now mixed another barrowful of the parings with the old mass of matter, and the fires in the house were discontinued, as no more serious frosts were apprehended. In four days the thermometer rose to 95°, and this time took *eight weeks* to get to 55°.

We learnt from these experiments that the idea of Dr. Uhler is an extremely valuable one:—that the older, comparatively speaking, the material, the more favorably is it impressed with the heat producing principle; and lastly, that in the use of sawdust and hoof-parings, we have a material at hand, in every part of the United States, at once simple and cheap, and capable of being turned to immense advantage to the horticulturist.

We are as yet but in the infancy of the idea, so to speak. We want many more experiments, so as to get at the best modes of its application. Will not our readers go on; and report?

Questions and Answers.

SEEDS OF EVERGREENS, &c.—*L. S. M., Milton, O.*—Some of the principal seedsmen in New York, Philadelphia, Boston or Washington, could probably supply you in season. Your other questions have been answered in back numbers of the paper.

S. MILLER—Will please accept our thanks for a specimen of the Franklin Grape.

ADVERTISEMENTS.—A correspondent, for whose opinions we entertain the highest respect, sent us an article for publication, reflecting on the manner in which one of our advertisers thought proper to introduce his wares in our advertising columns. He thought it our duty to expose "fraud and humbug." So do we, and intend to do so, whenever such cases undoubtedly exist and come to our knowledge. In the case instanced, we thought it our duty to point out to our friend, that a suspicious countenance does not always reflect a bad heart; and that it would be scarcely just to an advertiser, to allow a criticism on his *mode* of doing business, in the absence of all evidence that the business itself was dishonorable. Our friend "does not entirely coincide with us." "It is rare to find an Editor saying what he thinks on the matter, hence simple minded people take it for granted that the paper endorses it." We allude to the subject here, simply to say, that if there are any readers of the *Monthly* so "simple minded" as to suppose we endorse whatever our advertisers choose to publish, we must explain that we have no connection with any establishment for the feeble-minded. There are philanthropic institutions, expressly for such constitutions as theirs.

We can assure our correspondent, that there is no disposition on our part to suppress the discussion of any *fact*, but it seems our duty to avoid the chance of personalities appearing in our columns, which we think the discussing any man's mode of doing business, would certainly lead to. If an advertiser asks five dollars for a grape, which we have never seen, and no one but the raiser has ever seen, and he tells people so, and if, besides, he asks payment two years in advance, we cannot advise the public in the matter. They must judge for themselves. We will try to get at the *facts* for them as soon as possible. If they are not willing to wait for this, why they must run the risk.

GRAFTS—*Levi Burt.*—We regret that we have had no means of obtaining for you the Pear you desired.

DICLYTRA SPECTABILIS—*A Lady Friend.*—Diclytra is Decandolles name. *Dicentra*, so named by Borkhausen, is the accurate name. Dieltrya is evidently an error. Diclytra has probably been misprinted in the early history of the plant, an *e* for a *c*, and the error has become common. The proper name is *Dicentra*.

SPIRÆAS—*A. W., Galesburg, Ill.*—Almost all the Spiræas grow readily by root cuttings, or by cuttings taken off early in the fall. *Arbor Vitæs*—To thicken these at the base, prune severely at the top *when growing*, and lightly at the base.

J. L. D.—"Should Arbor Vitæs, planted out for a hedge, be pruned soon after setting out in the Spring?" At once.

ADERINE.—We feel much complimented by your good opinion, and did not our Editorial bashfulness forbid us to publish any of the numerous flattering testimonials we receive, we should like to publish your very kind letter.

GEORGE PEABODY ROSE.—We have received from Mr. Pentland, a truss of the above, which he says, is "from a weak plant one foot high, has been open for some time, and has lost some of its color." The specimen has the appearance of being of the hybrid Bourbon class, and has one fully expanded flower, and three large buds. It appears to be a free and vigorous grower. The form is imperfect, the petals being somewhat curled and crumpled; but these are of a fine velvety texture. The color is superb, reminding us of the Dupetit Thours, but with the addition to the fine color of that rose, of a fine clouded purple shade at the base of each petal. It has a greater fragrance than most Bourbons possess. It is a good acquisition.

SCARLET GERANIUM; "Pride of the Parlor"—*From Mr. Ward, Washington, D. C.*—A truss was received before our last issue. It has a great number of "pips" in the truss, and the form of each flower is very good; but the whole of this class, of which "Smith's Emperor" is the original type, are shy bloomers, in comparison with the dwarfer kinds. If it will flower as freely as Tom Thumb, or others of the same class, it will be valuable.

Catalogues, &c.

Uri Manly, Marshall, Illinois. Sheet Catalogue of Trees, Fruits, &c.

John M. Hunter, Ashley, Ills. Fruits, Shrubs, &c. A very few years ago, and where was Ashley? and now we have here a nursery, which, for enterprise and variety, judging from this Catalogue, would do no discredit to any of the older settled towns.

J. Mason & Co., Hartford, Conn. Sheet Catalogue of Roses, Verbenas, Bedding plants, &c. Messrs. Mason say in it, that the strawberry "Delices d'Automne" bears in pots with them till December.

Dr. Ed. Taylor, Cleveland, Ohio. Descriptive Catalogue of Fruits, Trees, &c. Amongst other good things, we notice at least two dozen of Kirtland's seedling Cherries, many of which are now obtaining that rare credit amongst American fruits—an European reputation.

R. Buist, Philadelphia. Select Catalogue of Green and Hothouse plants, &c. Although Mr. Buist re-

jects from his list most of the inferior plants in cultivation, yet in its present form it probably affords one of the most extensive selections in the States. We notice 30 species of our favorite, the Acacia; besides Azaleas, Camellias, &c., too numerous for us to count. Such catalogues as these do honor to the country.

J. W. Bailey & Son, Plattsburg, N. Y. Fruits and Ornamentals. Ten years established. The list of Fruit is select, and the descriptions, especially of the Grapes, very good.

Lewis Ellsworth & Co., Naperville, Ills. Descriptive List of Fruit and Ornamentals. A very neat and carefully got up Catalogue. The directions to the amateur, freely scattered through its pages, are evidently well considered, and must be of great value to their customers.

Fuller & Bartlett, Brooklyn, N. Y. Though but a folio Catalogue, yet it is well filled, and, amongst other things, offers Chinese Yams by the 1000.

J. S. Barnes & Bro., Woodstown, N. J. Fruits and Ornamentals. Jersey is famous for its Apples. In Messrs. Barnes' list we notice several kinds very little known in other States.

L. Van Houtte, Ghent, Belgium. Flower Seeds. Mr. Van Houtte, judging by this Catalogue, has lost none of his well-earned reputation as an energetic hunter up of novelties.

E. G. Henderson & Son, London. Flower seeds, &c. Quite a pamphlet of 70 pages.

Arthur Henderson & Co., London. We have received a complete set of the lists of this fine old establishment.

John W. Adams, Portland, Maine. Evergreens from the woods.

J. B. Booth & Son, Hamburg. General Catalogue of Nursery stock. Probably one of the most extensive lists in the world.

Circular of the Concord Grape. "The subscriber desires," &c.; but there is no subscriber! We have several letters on hand from parties who have forgotten to *sign their names*,—one of whom wishes us to *address him* at Port Deposit? But a circular without a name is quite a novelty. Well, we suppose it emanates from Mr. Bull, Concord, Mass. We have never held a high opinion of the flavor of this grape, but in many other respects it is unquestionably one of the most valuable we have.

Andrew Bridgeman, Broadway, New York. Select Bedding Plants, &c. No catalogue of this class that we have received this season, has given us more pleasure in its perusal than this. It covers 30 pages.

George D. Kimber, Flushing, N. Y. Trade List. Flushing is famous for its nurseries, and friend Kimber's list is one of those which does not do the least to sustain it.

J. W. Manning, Reading, Mass. "Propagates and deals in" all kinds of trees. A Sheet Catalogue.

R. Buist, Philadelphia. Catalogue of Select Roses. The public expects much from the author of a "Rose Manual," and in this list they will not be disappointed.

Ensign & Ford, Toledo, Ohio. Descriptive Catalogue of Fruits and Ornamentals. A catalogue of 64 pages, embracing a wide range of subjects, and exhibiting great care in its arrangements.

Journal of the Massachusetts Horticultural Society for March. Besides other interesting matter, this number contains a report on the habits of the Robin.—The Committee examined numerous specimens—almost daily—but found not a particle of vegetable matter in their crops, until the fruits ripened. From June the 21st to October the Committee found strawberries, cherries, and other fruits in a majority of the examinations, intermingled with insects. The results show how valuable the Robin can be made to be to the orchardist, providing means can be found to "scare" him from the fruit. We have no compunction about "muzzling the ox that treadeth out the corn."

Hedge-grower's Manual. By C. R. Overman, Bloomington, Ills. Third Edition. This is a small pamphlet on the value and management of the Osage Orange for making live fences. In this issue Mr. Overman has abandoned some of the ideas contained in his former editions, and which his extensive practice has found, needed revision. Without endorsing all that is said respecting the management of the Osage Orange, we can safely recommend it to any of our readers as probably the best essay on the subject extant, and we are sure no one of even extensive experience will fail to derive considerable profit from its perusal.

The Microscopist's Companion. By John King, M.D. Cincinnati: Ricky, Mallory & Co. We have received advanced sheets of this work, from which it appears likely to be a very valuable production. To those who wish to obtain a practical knowledge of Vegetable Physiology, a good microscope, and the requisite knowledge of the proper way to use it is invaluable. Even as an amusement, there is nothing capable of affording so much real and so lasting enjoyment as the microscope. Few sensations have made so lasting an impression on our minds, as, when a boy, we were by its aid afforded a view of the invisible world,—the myriads of diatomaceous and other plants,—monads and other animalculæ innumerable, that throng in the air we breathe and the water we drink, and abound in every hole and corner of the earth.—That not the purest dewdrop should exist, but is peopled with its thousand beings, with their passions and affections, their aversions and their attachments, and to whom their watery sphere is a world like ours, is a fact calculated to awake in the juvenile mind ideas of the grandest conception, and can never be reflected on by even the wisest and the best, without a feeling of wondrous astonishment at the immensity of Nature. If the work is executed as from the specimens sent, (it is likely to be,) we cannot but hope it will receive an extensive support.

New Plants.

From our files of foreign journals we select the following as being of a character likely to interest our readers:

Primula Stuartii.—Nat. or. Primulacea. An Alpine species, from the Himalaya Mountains. It has somewhat the character of an Auricula, with flowers of an orange and yellow color, and is altogether a very striking kind.

Rhododendron Moulmeinensis.—From a place of that name on the eastern side of the Bay of Bengal, ten miles south of Mataban. Flowers white, tinged with yellow, 1¼ inch in diameter. A plant 18 inches high produced 6 trusses of flowers, each truss from 10 to 14 flowers. Leaves lanceolate coriaceous, 2½ inches long. Is thought to be hardy in the south of England.

Dipteracanthus calvescens.—Nat. or. Acanthaceæ. Flowers tubular, spreading produced in the axil of the leaves, delicate white, slightly tinged with lavender, about 1½ inch in diameter; leaves nearly sessile opposite; lanceolate of a purplish color below; habit neat, dwarf, bushy; grows freely from cuttings in a mixture of half peat and half loam.—From Brazil.

Columnea scandens.—Native of the West Indies. A trailing plant of great beauty, and will be found well adapted for suspending in baskets; produces its tubular shaped flowers, of a bright rosy pink, very freely from the axil of every leaf; leaves opposite, ovate, pubescent; strikes freely from cuttings; grows well in fibrous peat soil.

Thomasia stipulacea.—Nat. or. Byttneriacea. New Holland. A handsome white-flowered greenhouse plant of easy culture, flowering in autumn and winter.

Diplolœna Dampierii.—Nat. or. Rutaceæ. A New Holland plant of dwarf branching habit, with numerous small white flowers, more curious, perhaps, than beautiful.

Lysimachia nutans.—Nat. or. Primulaceæ.—South Africa. A very beautiful half hardy herbaceous perennial, with dark purple flowers.

Rubus nutans.—Himalaya. As every new species that may possibly have a bearing on pomology, has a special interest for our readers, we give the botanical character in full from the *Cottage Gardener:*

"*Rubus nutans.—Wall.* Nat. or. Rosaceæ. Native of the Himalaya. Habit dwarf and creeping, branching copiously. Branches three or four feet long, lying close to the ground, and rooting at the joints; round, covered with spreading, purplish-tinted hairs. Petioles moderately long, covered with short, spreading, purple hairs. Leaves trifoliate; lateral ones ovate, and the central ones nearly round; margins slightly lobed, and roughly serrated; smooth on the upper surface, rough and hispid on the lower surface. Stipules oblong, somewhat cut at the apex, and membraneous. Inflorescence axillary and terminal; peduncles single flowered and solitary, when axillary; but when terminal, three or four are produced together. Calyx composed of five ovate, large acuminate sepals, villous on the outside, with long soft, purple hairs. Petals large, nearly round, pure white, spreading much. Stamens very numerous. Filaments nearly erect, filiform. Anthers large, yellow. Style as long as the filaments. Stigma concave, expanded, and with a villous margin.

Perfectly hardy, and, being of neat, compact, trailing habit, it is admirably adapted for rockwork purposes. It sends out, in rich profusion, its large, handsome, white blossoms in August and September. Though yet very scarce, it need not be so very long, because every joint, if properly pegged down, and a little earth drawn around it, will make a plant. It delights in a moderately light soil, rather moist than dry, and prefers shade to exposure."

Plocostemma lasianthum.—Belongs to a new genus closely allied to Hoya; and the present species was received in 1857 from Mr. Hugh Low, Jun., by whom it was discovered on the north-western side of the island of Borneo. The plant, which is not a climber, presents a noble appearance, having exceedingly handsome foliage; and it possesses a very great recommendation in being a most profuse bloomer, the clusters of flowers being produced in great numbers. The flowers are of waxy consistence, like Hoya—colour, orange; the petals reflex until they become quite perpendicular, and rest on the flower-stalk; the lower part of the petals is entirely covered with a snow-white velvety pubescence, giving them an unusually beautiful appearance. The flowers are fragrant, and 14 have expanded in one cluster on a newly imported plant.

Œolanthus Livingstoni.—An interesting plant, belonging to the family of Labiatæ. From seed collected in Eastern Africa by Dr. Livingstone. The blossoms are of a chocolate colour, produced freely in terminal spikes; in habit somewhat resembling Angelonia grandiflora. It is not remarkable for beauty, but extremely interesting, being the first plant that flowered in England from the seeds collected by the above explorer.

Pimelea elegans.—An extremely pretty species introduced from New South Wales. The blossoms are pure white, with very large and conspicuous yellow anthers, which give to the plant a striking appearance.

Strobilanthus sabiniana.—Nat. or. Acanthacea. From Nepal. An excellent winter-flowering stove plant, beginning to bloom about the earliest part of December, and lasting till the latter end of February. The individual flowers are very fugaceous; but are produced in rich succession, of a purplish blue color.

Dryas Drummondi, *Rich.* Nat. or. *Rosaceæ.* Native of the Rocky Mountains, North America. A hardy perennial, of procumbent habit. Stems and branches woody. Flowers yellow. A very beautiful Alpine plant, but also rare; being, indeed, seldom seen in this country beyond botanical establishments.

It is well suited for shady parts of rockery; and flowers more profusely, and longer in duration, in such a situation, than in pots, or in a more exposed position.

Spathodea campanulata (*Bell-flowered Spathodea*). Called also *Bignonia tulipifera.* Native tree of western tropical Africa. Flowers like bunches of crimson Tulips.—*Botan. Mag., t.* 5091.

Sanseviera cylindrica (*Terete-leaved Bow-string Hemp*). This has been called *S. Angolensis*, from being a native of Angola, in Western Africa. Its fibres there are used in making cordage, called *ife.* "Experiments recently made with this cordage, prove it to be the strongest and best fitted for deep-sea soundings of any fibre known." The fibres of all the Sansevieras are notoriously strong.—*Ibid., t.* 5093.

Tachiadenus carinatus (*Keeled Tachiadenus*).—Known also as *Lisianthus carinatus.* Native of Madagascar. Introduced by the Rev. W. Ellis, so favorably known as the author of "Polynesian Researches," and "Three Missionary Visits to Madagascar." We are indebted to him also for "two species of the wonderful *Lace-leaf* of our stoves." Flowers purple, blooming in October. It is a beautiful shrubby plant of the natural order *Gentianeæ.*—*Ibid.*, t. 5094.

Chrysanthemum carinatum, *var.* pictum (*Painted variety of Keeled Chrysanthemum*). The species is native of Barbary, and the very beautiful varieties here noticed were sent to Kew in the summer of 1858, by Mr. W. Thomson, of Ipswich. They were raised by Mr. K. Burridge, Leyden Road, Colchester.—*Ibid., t.* 5095.

Obituary.

Mr. Henry Sater, *Harrisburg, Ind.*—We are pained to hear of the death of Mr. Sater. Few persons possessed a more thorough love of Horticulture for its own sake, than he always exhibited. Though not favored by circumstances with the means of enjoying to the fullest extent his tastes in this respect, he was ever foremost and active in the endeavor to cultivate and encourage the pleasure in others. Many of our best periodicals owe much in their circulation to the active efforts of Mr. Sater. He was one of the earliest friends of the *Gardener's Monthly*, and we part with him from our circle with great regret.

Mr. Mundie, the well-known Canadian Landscape-gardener, is amongst the recently deceased.—Mr. Mundie's talents were held in great esteem by a wide circle of friends. He was extensively known as a sound, practical writer, and some of his contributions to the *Horticulturist* in former years are well remembered for the deep interest they possessed.

Communications.

THE DELAWARE GRAPE.

BY J. B. GARBER.

Editor Gardener's Monthly:

My Dear Sir—In my article on the "Franklin Grape," which you kindly published in the March number of the *Monthly*, I incidentally mentioned that I considered the Delaware Grape a foreign variety. As you appear to be "surprised to find him (me) so decided about the Delaware being a foreign grape,"—you even say in a private note to me, "Were the Delaware traced to Europe, you would still believe that it was taken *there* from *here.*"

Now, there are many minor and distinctive features about all plants, that will be plainly apparent to a close observer, and yet it is impossible to convey our impressions on paper so as to enable others to discover those distinctive differences which have swayed our own minds in making up our judgment; and particularly is this the case when, ignorant of botany, we cannot avail ourselves of its helping hand.

But, to the best of my ability, I will try and give my reasons for believing the Delaware as of foreign origin. It may be an *American seedling* from some foreign variety; but that will not, of course, constitute it a *true native.*

There is one distinctive mark that I have never seen fail on a European grape of the *Vitis vinifera* family—*all cast the bark in short fuzzy pieces;* and you never can pull off the strip of the old bark on a foreign vine much longer than your finger, and the bark is soft, brittle, and has no consistency; while the *true natives you can strip the bark in the spring two, three to six and more feet—long strings, and frequently of sufficient strength to tie up the vine!* This test I have never yet seen to fail, and I have seen the same fuzzy bark that the Delaware has, on fully one hundred foreign vines. I have now on trial nearly or quite one hundred, said to be natives, and uniformly those that have grown sufficient to show me the two and three year old wood, peel off in long strips.

There are other distinctive features, such as the absence of pulp in all foreign varieties. This will place the Delaware among the foreign. Then there is a general distinctive character in the manner of growth, smoothness of the leaves, and an indescribable something, for which my vocabulary does not furnish me with words to define, yet plainly perceptible *to the eye;* all going to make up a whole that fully satisfies—at least myself—that there is not a drop of native blood in the Delaware Grape of Ohio!

The Delaware Burgundy, Raabe's Emily, Clara, Brinckle, all are seedlings of foreign varieties. The one Mr. Raabe calls after himself appears, however, to be an exception; the loose bark comes off in long strips, and this, no doubt, is a seedling of some native, probably Catawba.

The question has been asked, "What constitutes an American grape?" I should say that a seedling from a foreign grape may be an "American grape," but certainly is not a true "native"—an aboriginal of Americ .

While on this subject, I may as well "make a clean breast of it," and confess that I am "bothered" with a certain class of grapes from the South, such as Herbemont, Madeira, La Noir and others. These cast the bark like the foreign, yet from their monstrous growth, rough leaves, and general appearance, resemble the natives; these also are free from pulp. Then the Mustang of Texas has the foreign bark, but every other attribute is truly native. Again, the Scuppernong is distinct from all others, native or foreign; this apparently never casts its bark,—though my vines of this var. are too young to give an opinion,—yet there is no doubting its nativity, as I believe it has never been found in any other country.

Respectfully, J. B. Garber.

[The observations of Mr. Garber on the different natures of the bark in the foreign and native species of grape are quite new to us, and very interesting. With regard to the Delaware Grape, there are so many other characters which stamp it as a native, that we are not convinced by the character of the bark.

Mr. Garber's observations, however, may lead to further results. For instance, notwithstanding the apparent difficulties in the way, there is pretty strong evidence that the grape will really hybridize one species with another. The Delaware has been traced to a vineyard filled mainly with foreign vines.—If the distinctive features which Mr. Garber finds in the barks he has examined, are found to hold good in every instance, the question may be fairly started—Is the Delaware a hybrid?

The Raabe Grape was so called, we believe, by the Pomological Committee of the Pennsylvania Horticultural Society. In their report to the Penna. Hort. Society, 1858, they say that the whole of them were raised from seed Mr. Raabe received from Germany.—Ed.]

PREPARING GREEN CORN FOR WINTER.

BY E., CHESTER COUNTY, PA.

Never having seen published the following method of preparing Sugar or Stowell Corn, by request it is sent. When green or in good boiling condition, husk and put in the oven after the baked bread is removed; allow it to remain until the sun shines next day; expose to the sun a few days, carefully protecting it at night, and when dry, put in bags for winter use.

To prepare for the table, remove the grains from the cob, (it is easily shelled,) soak for an hour; boil soft, and serve up with butter, salt, &c., to your taste.

In kilns for drying fruit, quantities might be thus prepared as a source of great profit to the producer. It is, when thus prepared and cooked, incomparably superior to hominy, and better than in any other way we have learned. If some one will give a better method, he will much oblige E.

Chester County, Pa., April 13th, 1859.

SAVING EGG-PLANT SEED.

BY AN OLD "NECK TRUCKER."

Mr. Editor:

This seed is generally scarce and dear, but particularly so this spring. A friend of mine sold, a short time since, 3 pounds to a seedsman for $18. This is partly owing to the fact that but few persons know how to save it. A very good way, and one which I have practised for several years, is to take the fruit when ripe and put it in a tub or barrel, and with a good heavy piece of wood pound it up into a soft pulp, like apple pomace: then pour on it a considerable quantity of water, when the pulp will float, and the seeds settle at the bottom. The pulp should, however, be well agitated and stirred about. A bright day should always be chosen, so that the seed can be spread out immediately to dry; otherwise it is apt to sprout, and is also of a bad color.

The above is a good way of saving the seed, but if your correspondents know a better, let us have it.

Yours, An Old "Neck Trucker."

HEDGES IN THE SOUTH.

BY A SOUTHERN SUBSCRIBER.

February 18th, 1859.

Dear Sir—Suffer me to make a few remarks which struck me in perusing the *Monthly.* Mr. Affleck's "Chickasaw," *alias* "Cherokee" Rose *is* the *Rosa lævigata.* We have here, in the South, a plant excellent for a protection hedge. I mean the *Yucca gloriosa.* It is an impenetrable barrier for man and beast, though not beautiful in my opinion, but odd-looking. It grows rapidly on poor sand; the sun cannot kill it. I have seen it dug up, lying on the top of the ground, exposed to the full scorching sun, *and still growing, and sprouting* all over. The roots, unlike those of Maclura, are very insignificant. The Pyracanth is very unsightly in the winter, having a dirty color.

In regard to vegetable forcing-houses, I often regretted that I never lived near a factory; I would buy the *waste steam*, which could be carried through clay pipes, laid in the ground, probably for a mile or more, and heat the ground. Yes, I am sorry I have no chance for it here. It has been my favorite idea for many years. If it is not imposing on your valuable time, please tell me your opinion.

[Could the waste steam be secured for the whole twenty-four hours, something could doubtless be made of it. But herein we apprehend the difficulty. It might, however, be so applied as to warm bodies of soil, in which to force fruits and vegetables that would not suffer much from extremes of temperature between the night and the day. Though contrary to the views of some practical men with perhaps as good opportunities for observation as our own, we do not approve of much difference between day and night temperatures.—Ed.]

The Weather.—*Hamilton, C. W., April 20th*—Our winter in this vicinity has been one of almost unparalelled mildness. An abundant harvest is looked for of grain and fruit. W. H. M.

THE LARCH.

BY J. C. SIDNEY.

Editor of the Gardener's Monthly:

THE above sketch represents one out of about thirty *Larch* trees now standing on each side of an avenue in front of the house of W. McKee, Esq., near Salem, Washington Co., New York. Its beautiful and *novel* form (for this species of tree) attracted my attention whilst on a professional visit in the neighborhood, and I am indebted to the courtesy of the tasteful proprietor for the following information respecting it, which to me, as I believe it will be to many of your readers, is entirely new.

The trees are the common American Larch, taken out of the woods, and were planted to form an avenue about ten years since. In consequence of an accident to some of the trees, the leaders were destroyed, and Mr. McKee determined to top all of them to the same height, and (to use his own words) "keep them trimmed on the top surface in the shape of a half orange." This he has done for the last seven years, and the consequence is, that all of the trees now present the appearance of that I send you. The great beauty and peculiarity, however, of these trees lie in the fact that all the lower limbs *droop* more perfectly than on any weeping Larch I ever saw, sending out pendulous branches in every direction, and in the most picturesque manner.

As all the trees have the same shape, there can be no doubt but that any Larch, treated in the same manner, would have the same characteristics, and I can conceive no more beautiful ornament to a lawn, than single specimens of trees such as above described.

Respectfully yours, J. C SIDNEY.

[No doubt many novel effects could be produced by heading down and pruning some of the Conifera tribe. We recollect once seeing a red Cedar, the top of which had been broken off about 8 or 9 feet from the ground, and the lower branches removed. The remainder of the branches assumed a weeping habit, so as to resemble closely a large umbrella, and furnishing a delightful covering for a garden-seat.—ED.]

CLIPPING BOX.

BOX-EDGING for walks can be clipped or cut far more expeditiously with a sharp scythe, than with shears. In order to do it, however, the box must be cut to the shape of a letter A on top. The mower must stand on one side of the edging, and cut one side, and then change to the other. I have a garden which has over 2400 feet of box-edging, the whole of which has been done in the most complete manner *in less than two days.* Box cut in this shape, has a very neat appearance, and never gets naked underneath. This plan is very generally pursued now in England. A short light, rivetted back scythe is the best for the purpose. Yours, BUXUS.

CAMBRIDGE, April 10, 1859.

TOMATO PLANTS IN FRAMES.

IT frequently happens, that Tomato plants in frames, grow so tall before the season arrives for setting them out, that they touch the sash, and I have frequently seen the sash propped up to afford them more room. A much better course to pursue is to cut off the tops of the plants. This causes the plant to throw out lateral branches, and instead of a tall, lank, top-heavy plant, you have a strong, stocky one, that will thrive when set out.

Yours respectfully, BLUE APRON.

ELLICOTT'S MILLS, April 13, 1859.

[IF all our subscribers, at the end of their business letters, would send us a short suggestion, like our friend has done in the above communication, what a fund of useful information would thereby be accumulated. ED.]

GOLDEN HAMBURG GRAPE.

DEAR SIR:—We have taken the liberty to send to you a few berries of the *Busby's Stockwood Golden Hamburg Grape*, fruited by us on our imported vines. They are neither as large, as high-colored, or as high-flavored as grown 1st. on old vines; 2d. in a vinery border (these are in pots yet); 3d. during the summer; or 4th. even during the winter in a house where we were not compelled to shade whenever the sun came out strong, on account of the young vines we are propagating; but we think that they are the first fruited in America.

We have also the *Bowood Muscat* fruiting, but will not be ripe under a fortnight. The *Muscat Hamburg* imported this winter, is showing signs, and we hope will set its fruit well. BISSELL & SALTER.

ROCHESTER, N. Y., April 18, 1859.

[THE specimens sent are of a slightly oval shape, of a greenish amber color. In other respects, as the Black Hamburg, though, we think, rather sweeter than we have tasted Hamburgs at this season. It is a very distinct variety, and we think will prove valuable. Messrs. Bissell & Salter deserve great credit for their energy in fruiting it so perfectly so soon after its introduction, and have our best thanks for the opportunity afforded us of testing it.—ED.]

OREGON.

A. HARVEY, Plum Valley, Oregon, writes to us as follows:—"We have a country and climate admirably adapted to furnish almost all that can be desired fresh every month in the year. We have Lettuce and Radishes all winter, with but little, and frequently no, protection. Strawberries (wild) frequently bloom every month, from November to July."

WEATHER IN BALTIMORE.

A FRIEND in Baltimore writes us: "Last Tuesday night (April 12th) we had a pretty severe frost 26° by sunrise. The Peaches have suffered some, but there are plenty left. All the blossoms of the Spiræa Reevesii are killed."

Domestic Intelligence.

APPLE PRESERVES.—Almost everybody can make apple-sauce very good; but this dish for a variety is quite a treat. Pare and core the apples, cutting them in halves or quarters as you like. For every pound of apples take three-quarters of a pound of sugar and make a syrup by adding water sufficient to keep it from burning, while heating it over a slow fire. When the syrup is boiling hot remove it from the fire, put the apples in and let them stand one night. This will toughen and prevent them from falling to pieces. Then boil them over a slow fire until they are cooked tender. If loaf sugar is used the preserves will be very clear and handsome. If the syrup is made of brown sugar it should be well skimmed befor putting in the fruit, and also while cooking.—*Am. Agriculturist.*

NEW CEMETERY GARDEN AT CHICAGO.—*Emery's Journal and Prairie Farmer* describes flatteringly the Rose Hill Cemetery of that city. Mr. W. Saunders, of Germantown, Philadelphia, has been employed to lay out and superintend it.

IVY.—In those parts of the country too cold to grow the English Ivy, we would suggest large circular beds in appropriate parts of the pleasure-grounds, to be planted in Ivy; and which, while permitted to fill the bed, should be kept within it by clipping.—Beds in this way (the ground being well covered in) filled with the different varieties of the Gold-striped, the Silver-striped and the Dark Giant, are very effective and striking, and when not protected by snow in winter, can readily be so by a few cedar or hemlock boughs thrown over them.—*Sargent's Supplement to Downing's Landscape Gardening.*

HILTON, NEAR WILMINGTON, N. C.—One of the prettiest places I have seen in the whole South is Hilton, on the banks of the river about a mile above Wilmington. It is a brick mansion, 101 years old, among acres of large and small evergreen trees, the most numerous of which being the live oak and willow oak (*Quercus phellos.*) There Samuel Adams of Boston, met in conference some Southern men at the commencement of the Revolution, to agree upon united resistance to Great Britain. It is now the residence of Dr. James F. McRee, a botanist, with whom I had a good visit.—*S. B. Buckley, Wilmington, N. C., Feb.* 13, 1859. *Country Gentleman.*

ORCHARDS IN CANADA.—In the Canadian *Agriculturist*, Mr. George Leslie gives a highly interesting history of fruit culture in Canada West, and some very clear instruction in regard to its general management.

"Twenty years ago," he says, "the few scattered cherries consisted of sour kinds, commonly called Kentish, with sometimes a few scattered May Dukes and Ox Hearts. Our Plums consisted of common and yellow, with a few egg and green gage. Few people had ever heard of the fine varieties that have been introduced within the last fourteen years, such as Bolmar's Washington, Jefferson, Duane's Purple, imperial Gage, &c. The only distinction then was, wild plums, and tame plums. Of pears, there were none, and they are still scarce, and a great rarity in our markets. These remarks apply to the common practice only; there were here and there worthy exceptions, of individuals who in the face of great difficulties which have now happily disappeared, had collected many of the improved varieties which even now stand among our esteemed sorts; such as, for instance, among apples, the Fameuse, Pomme Gris, Bourassa, Baldwin, R. I. Greening, E. Harvest, &c. Last year our fruit crop was rather a failure, but in the fall of 1855 I was very much pleased to see a few barrels of fine specimens of the following sorts, grown in the neighborhood of Toronto, offered for sale in our markets, namely: Fall Pippin, Æsopus, Spitzenburg, Yellow Bellefleur, Baldwin, Roxbury Russet, St. Lawrence, Ribston Pippin, &c., &c. and from the number of the trees planted of late years, we expect to see in our market a few more of the best sorts, for commerce and transportation."

Mr. L. says at the conclusion of his paper:—"As far as my knowledge extends, the following list of apples comprises some among the best and most suitable varieties adapted to our climate:

Summer Varieties.—Early Harvest, Summer Queen, Early Strawberry, Sweet Bough, Duchess of Oldenburgh, Red Astrachan. 6.

Fall Varieties.—Fall Pippin, St. Lawrence, Fameuse, 20 oz. apple, Ribston Pippin, Porter, 6.

Winter Varieties.—Rhode Island Greening, Baldwin, American Golden Russet, Pomme Gris, Roxbury Russet, White Bellefleur, Æsopus Spitzenburg, Newtown Pippin, Bellmont, Swaar, Northern Spy, Dutch Mignonne. 12."

THE HUBBARD SQUASH, now becoming so popular, weighs, on an average, says *Hovey's Magazine*, from six to eight pounds. It is as productive as the Marrow Squash. The first specimen was introduced into the town of Marblehead over forty years ago. Fifteen years after, Mrs. Hubbard brought it to the notice of the writer (Mr. J. J. H. Gregory), who named it after her.

NATIVE STRAWBERRIES,—Adjacent to the suburbs of Petaluma, in Sonoma county, we called during the last week in February at the well kept garden and grounds of Mr. J. W. Bracket—what a pity that he should remain a bachelor—and in viewing his strawberry plants, we were a little surprised at finding one variety full of fresh blossoms; this, with the color and form of the leaf, so different from other varieties adjacent, led us to make inquiry of its character.

We were informed that it was a native variety, obtained at no great distance from thence among the hills, that on cultivation had exhibited a wonderful improvement, both in the quality or flavor and size of the fruit. That they usually blossom and set their first berries in February, and are ripe earlier than any introduced or foreign variety that he has ever seen, and command a high price in the market. We believe amateur culturists would be pleased with the possession this fine, early, native variety, though we do not know that Mr. Bracket would dispose of any of his vines at present.—*Cal. Culturist.*

AN EDITOR WITH MONEY!—Mr. Wadsworth of the *Culturist* was beset by robbers in Almeda County on the 4th, lassoed and dragged to the woods. He fought well, and saved his money by concealing it.—Editors must be getting up in the land of gold if they are worth robbing, or if what they have is worth fighting for.—*Exchange.*

SOUTHERN TREES AND GARDENS.—A letter from Columbia, S. C., says: Among the many beautiful grounds to which the stranger has access are Hampton's gardens, belonging to the estate of a wealthy Mississippi planter. They are surrounded by a hedge of mock orange trees, peculiar to this section of the country, and which alone is a curiosity well worth visiting. By trimming these trees when young, they are made to assume any shape which fancy may suggest, and in this garden you see pillars and pyramids, mimic batteries, summer-houses, and colonnades—all fashioned with the nicest skill, and having freshness of appearance, which is a marked peculiarity of the mock orange tree.—*Phila. Evening Bulletin.*

A CURIOSITY.—We were shown yesterday afternoon, by Mr. B. F. Sloan, what we consider quite a curiosity, though others have seen the same things heretofore. It is a rose grafted on the peach tree. The tree is now in full bloom, and must present a beautiful appearance. The rose is, we think, of the multiflora variety; has no scent—and the branches of course produce no peaches.—*Pendleton Messenger.*

NEW ORCHARD HOUSE.—D. R. Coit, Esq., of Norwich, Connecticut, one of our most intelligent and enterprising amateur fruit culturists, has one now in process of erection on his finely laid out grounds, and we have every reason to believe, with his skill, and under his excellent management, it will be a decided success.—*Repository.*

ILEX CASSINE.—The "Youpon," *Ilex cassine*, is a beautiful evergreen, very common here. The leaves of the Youpon are occasionally dried and used for tea, many erroneously believing it to be identical with the South American tea, *Ilex paraguensis.* Even Dr. Hawks, in his History of this State, is said to have fallen into the same error.—*Country Gentleman.*

Foreign Intelligence.

JAPAN MAPLE. (*Acer japonicum atropurpureum.*)—Nothing is more beautiful in Japan gardens, writes M. Siebold, than this shrub, whose wood and foliage are dark purple, forming clusters of leaves in lieu of flowers, seeming like monstrous bouquets of very dark flowers, reflected with fire. It grows ten to fifteen feet high in its native country. It is quite hardy in the Belgian gardens, and as the Gingko and other Japan trees are hardy with us it is to be hoped that this may prove equally so, and thus become a great acquisition.—*Hovey's Magazine.*

RIGIDELLA FLAMMEA.—This extraordinary and very showy plant, which constitutes a genus entirely different from any previously described, was discovered by Mr. Hartweg, an active collector in the employ of the Horticultural Society, during the earlier period of his tours in Mexico, and safely transmitted to that body, in whose gardens at Chiswick it flowered in 1839. It is one of those remarkable floral objects which, while it arrests our admiration by the beauty of its blossoms, their vivid colour, and the prettily diversified hue of the anthers, demands more than usual scrutiny from the peculiarity of its structure, and the strange elasticity residing in its flower-stalks. The perianth, or coloured portion of the flower, is said to be destitute of a tube or petals, and curiously convolute at its base; its nerves concontracting, and the whole rolling itself up in the manner of a screw after having been open a short time. The most noticeable feature, however, is the partially pendulous or bent nature of the peduncles during the period at which the flowers are in perfection, and their rapidly rising, when relieved from the compression of the decayed flower, to a purely perpendicular position. To the individual who derives pleasure from watching processes of Nature, there is much that will afford amusement in this captivating plant. The astonishing quickness with which its flowers are developed—their progression being nearly visible to an attentive observer—and the equally apparent rapidity which marks their decline, immediatly on the occurrence of which they twist themselves round, and after having fallen, allow the flower-stalk instantaneously to erect itself, deserve special and close examination.—*Flor. Cab.*

EUGENIA UGNI was produced by several growers, generally with little color, but always of exquisite flavor. The best tasted, but the worst looking, came from HARINGTON of Acton Green, where it had been produced on a plant grown without protection at the foot of a hot south-west wall. Here again its quality has proved to be even higher than was originally stated. Seedlings ought now to be raised by everybody, for the purpose of increasing size and colour. Were that done sufficiently this Ugni, which is rather hardier than a Myrtle, would stand at the head of everything below Muscat Grapes. It is evident that glass does it no good.—*London Hort. Soc. Report.*

GRAPE HYBRIDS.—An intelligent correspondent of the *Gardener's Chronicle* doubts that any real hybrid has ever been obtained, intimating that where a change from the original parent has been obtained, it is rather to be looked at in the light of a sport. There are many among our scientific pomologists who think the same, and we make the note for their benefit.

RAIN-WATER FOR PLANTS.—The *Gardener's Chronicle* says, that at Trentham the rain-water is collected from the roofs of the early vineries into tanks in the houses, and a hot water pipe led through to render the water tepid, and that great benefit is found to result therefrom.

CHLORINE FOR GERMINATING SEED.—The *Cottage Gardener* says:

"We are indebted to M. de Humboldt for a number of very curious observations on the property which chlorine possesses of stimulating, or favoring, germination. The experiments of M. de Humboldt were made in the first instance, on the common Cress (*Lepidium sativum*). The seeds were placed in two test-tubes of glass, one of which contained a weak solution of chlorine, the other common water. The tubes were placed in the dark, the temperature being maintained at about 59°. In the chlorine solution, germination took place in six or seven hours; from thirty-six to thirty-eight were required before it was manifest in the seeds in the water. In the chlorine, the radicles had attained the length of 0.0585 Eng. inch, after the lapse of fifteen hours, whilst they were scarcely visible at the end of twenty hours in the seeds submerged in water.—(*Flora Fribergensis Subterranea*, b. 156.)

"In the botanical gardens of Berlin, Potsdam, and Vienna, this property of chlorine has been made available to excellent ends; by its means many old seeds upon which a great variety of trials had already been made in vain to make them sprout, were brought to germinate. At Schœnbrunn, for instance, they had never succeeded in raising the *Clusia rosea* from its seed; but M. de Humboldt succeeded at once, by forming a paste of peroxide of manganese, with water and hydrochloric acid, in which he set the seeds of the *Clusia*, and then placed them in a temperature of from 143° to 167°.

"This absolute necessity for the presence of oxygen, is a reason why seeds will not germinate if buried beyond a certain distance from the earth's surface; and why clayey soils often fail of having a good plant—an impervious coat of the clay enveloping the seeds, and preventing the air's access."

SUBSTITUTE FOR LAWN GRASS.—In almost every cornfield in the United States grows a little weed, called *Spurry*,—botanically *Spergula arvensis*. Messrs. Hendersons of London are trying to introduce a species called *S. pilulifera*, in order to make lawns of it.—"It," they say, "in its style of growth, is a neat dwarf hardy perennial tufted Alpine plant, forming close compact wiry grass-like stems, from one-fourth to one-half an inch in height, at first erect, afterwards decumbent, clothed with closely-set green bristle-like leaves, which, by permanent growth and occasional rolling, forms an unbroken, level, velvet-like surface of the richest conceivable verdure, remaining uninjured in severe drought or intense cold, and assumes the same beautiful verdurous tint during the winter months as in summer."

It grows on the poorest soil, remains green under heat or cold; is studded in July with blossoms, making the lawn look like "the living picture of an emerald green carpet, spangled with innumerable silver stars." It never wants mowing, and requires sweeping but once a year, namely, when it has done blooming.

"The seed may be sown either in or out of pots in the usual method observed for fine seeds, with a slight but uniform covering of soil, and placed within either a frame, cool pit or greenhouse, using the usual precaution of shading the seed-pans from intense sunlight daily for a few hours, until well germinated, after which it may either be replanted in stores of 10 to 50 plants within dishes or large pots, or otherwise planted out in a rather shady border of the open ground for a few weeks, and ultimately transplanted upon the prepared lawn surface in two or three plants, within 1 inch or more of each other, and such little plant groups may be formed at a distance of 6, 9 or 12 inches apart; in such positions the growths will progressively meet and form the rich and beautiful surface now described."

This does not appear to be all theory, for they further say:

"A practical proof of the success of *Spergula pilifera* for the objects above stated may be seen in the gardens of A. Mongredien, Esq., at Forest Hill, Sydenham, Kent, where a rich and verdant plot or lawn has been established four years by Mr. Summers, the intelligent gardener there, and is now in fine condition. In the same gardens, a considerable space is allotted for further illustration of its perfect adaptation, which may be seen on application."

Verily, the Millenium of the horticulturist is coming! Those of us who were not born with "silver spoons in our mouths" had better prepare them in time.

AMHERSTIA NOBILIS.—This plant excited nearly as much interest, on its first introduction into England, as the *Victoria regia*. In several instances, houses were erected specially for its accommodation. Only one or two specimens, we believe, have ever been seen in the East Indies, from whence it was introduced, and these were not wild, but planted before some temple as a noble offering to some deity. A recent number of the *Gardener's Chronicle* says:

"We learn that Mr. Foy has at length succeeded in flowering the Amherstia nobilis, not the plant originally introduced by Mr. Gibson, which has been dead some years. The plant at Chatsworth has been there two years, and was 1 foot high when received. At the present time it is 7 feet high, and 10 through, showing several racemes of flowers, one having 13 upon it.

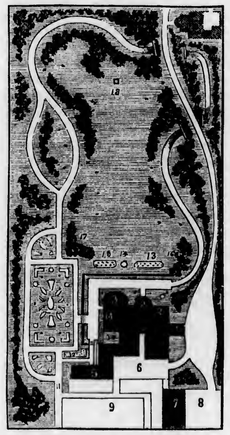
TRAINING FRUIT TREES AT TRENTHAM.—The different modes of training fruit trees and bushes in these gardens are worthy of remark; on either side of the middle walk pear trees are trained—pyramidal, bellshaped and cylindrical—not more than 4 or 5 feet in height; they appeared to be in perfect health, and were producing excellent crops of fine fruit; the roots alike of pears and other fruit-bearing trees were kept periodically shortened, and with the best effect. I also observed a quantity of excellent apple trees trained on these cylindrical forms, and producing fine specimens of unspotted fruit, and the trees, as far as I observed, were altogether free from canker. Gooseberries and Currants were trained as standards with nicely formed heads, strong, and covered with excellent fruit. The iron trellised arches are covered with pears, and are very productive. Mr. Fleming's mode of managing these trees has recently been reported on and specimens laid before the Fruit Committee of the Horticultural Society, and further noticed at p. 4 of the present year's *Gardeners' Chronicle*. I can only add that the system of grafting fruit spurs in the autumn or spring appears to be a most successful one, producing fruit of the best quality, and they are inserted down the branches wherever there is sufficient room for a spur—a ready mode of renewing old trees or changing the sorts if required.—*Gard. Chronicle.*

NEW LATE CHERRY—CERISE ACHER, OR ACHER CHERRY.

THIS is a seedling found on the property of M. Acher, near Paris. The tree is fifteen years old, and a good bearer. The fruit is a dull brown, almost black, and measures from 30 to 35 millemetres in diameter. It ripens in the last week in October, which makes it a very valuable acquisition.—*La Revue Horticole.*

PLANS FOR VILLA AND SUBURBAN GARDENS.

IN order to supply some hints to those who are building and planting, we copy a plan from the *Gardener's Chronicle* of March 21, by George Lovell, Landscape Gardener, Bagshot. The size of the lot, according to the scale given, is about 200 feet front and about 400 feet deep.



The grounds for which this design was prepared form a narrow strip bounded on each side by others of similar character; at one end by a public road, and on the other by a deep cutting of the South-Western Railway. The residence fronts the road; the surface about it is perfectly flat, and there are no views beyond the grounds to be taken into consideration.—The principal apartments and offices may be thus referred to. The entrance door is 1, 2 the drawing-room, 3 a small conservatory opening in to the dining-room 4. At 5 is a range of plant houses, 6 is the kitchen court, 7 the stables, and 8 the stable-yard. The kitchen garden is at 9, extending back to the railway cutting. The residence has no private window open to the carriage ring; a valuable, but unfortunately, rare arrangement in a house of this kind.

When I made my preliminary visit to the place the residence, stables and plant-houses were built, the entrance gate erected, and the carriage road formed in a direct line parallel with the front door. In that situation it of course seriously interfered with the arrangement of the lawn in front of the drawing-room windows. I therefore obtained permission to alter the line near the house as much as the confined space would allow. By careful management the road is now effectually screened from the front windows, and the garden in their immediate neighborhood rendered, as should always be the case, private and isolated from the approach, especially as in this instance, where no back road could be obtained.

The house is surrounded by a broad gravel walk upon a terrace about 2 feet 6 inches high. Stone steps lead down to the flower garden, and also to the plant-houses. Passing round the end of these is a walk to the kitchen garden under an archway (11) covered with Roses. It is intended ultimately to connect this walk with the railway bank, which, being of considerable extent, very irregular in surface and clothed with characteristic vegetation, is susceptible of forming a very picturesque and pleasing addition to the garden.

At the end of the terrace nearest the approach road the walk gradually slopes away, the difference of level being hidden by shrubs. The main walk, it will be observed, is represented as passing twice beneath the carriage road. As the latter very much interferes with the privacy of the garden, I suggested that arrangement to increase the apparent extent of the place, as well as to make it more private in reality. As the peculiar character of the locality and facilities for drainage left nothing to fear from an accumulation of water, the expedient recommended itself the more readily. The bank on either side of the walk through the cutting afforded an admirable situation for root and rockwork. As such interludes in a garden should, as a rule, always be isolated from the general scenery, no better position could possibly be suggested.

The plant-houses having a brick basement about 3 feet high, a narrow border runs along the front and one end for creepers. The space between the walk at the angle of the flower garden, and the one in front of the plant-houses, is filled by a bed of low evergreens (12). The recess (10) having windows looking upon the garden which it was desirable to conceal, is screened by a trellis covered with creepers.

The flower garden or parterre is partly surrounded by an arcade of Roses. On the lawn in front of the house, beds, 13, 14, 15, are dwarf American plants, and others requiring similar soil; 16 17 are hybrid Rhododendrons. The specimen plants are chiefly Conifers, Among them are Abies Pinsapo, cephalonica, and Menziesii, all compact, neat growing species suitable for the lawns of small gardens, the first named especially. There are also two Auracarias, and of course a Deodar, a Chinese Juniper, Libocedrus chilensis, and two or three Rhododendrons.

At 18 is a site for a vase or similar ornament of good design. If a vase, not for flowers; but to be seen in its own pure outline against the back-ground of evergreens.

At the entrance-gate a lodge is proposed as a residence for the gardener. The gate being at a considerable distance from the house in some degree justifies that appendage in such limited grounds.

TO GET LATE PEAS.—As a good *late* crop of Peas is very desirable, and not often secured, a plan originally recommended by the Horticultural Society of London, and which has been proved a good one, may not be out of place here, nor perhaps altogether unacceptable to amateurs who have not heard of it before: "The ground is dug over in the usual way, and the places to be occupied by the future rows of Peas are well soaked with water. The mould upon each side is then collected, so as to form ridges 7 or 8 inches above the previous level of the ground, and these ridges are well watered. The seeds are sown in single rows along the top of the ridges. The plants grow vigorously owing to the depth of soil and abundant moisture. If dry weather at any time sets in, water is supplied profusely once a week. In this way the plants continue green and vigorous, resisting mildew and yielding fruit, till subdued by frost."—*Gard. Chronicle.*

SUBSTITUTE FOR TOBACCO.—The Jamaica papers speak loudly of the excellence of Allspice or Pimento as a smoking material far superior to Tobacco in every respect. Any person, says a correspondent of the *Colonial Standard*, who knows anything of the fragrance of a Pimento walk when in full blow may form some idea of it by a pipe charged and lighted with the dried berry, simply crushed in coarse bits. Another says that it cannot be well smoked in short pipes, but with the long Cherry stick of a meerschaum he experienced "a treat beyond anything he had known in the use of Tobacco." The same writer adds that already the coolies and native labourers are bringing Pimento into use in the place of Tobacco; and he can see no reason not to prefer it.—*Gardener's Chronicle.*

MR. LINDEN'S CATALOGUE.—Of singular importance is the new *Catalogue des plantes exotiques, nouvelles, et rares*, cultivated by Mr. Linden of the Royal Zoological and Horticultural Society of Brussels.—The skill and enterprise of this indefatigable naturalist have long since placed him among the very highest of those plant *merchants* to whose efforts our gardens have of late become so deeply indebted; and the list now before us completely justifies the European reputation which our estimable correspondent has most deservedly obtained. The list commences by a description of thirteen new stove and greenhouse plants, of great beauty, now offered for the first time among which Beloperone violacea, Cuphea ocymoides, Centradenia grandifolia, Arachnotrix rosea, Lindenia rivalis, and three superb Begonias called amabilis; argentea, and Victoria, are represented by colored figures, themselves examples of artistic skill. There are also seven new fine foliaged plants, all from tropical or temperate America. Twenty entirely new and highly decorative plants in one season, are in themselves evidence of the vigor with which Mr. Linden prosecutes his system of importation from distant countries. Of plants more or less known the catalogue contains, of fine foliaged species, 164; of variegated plants, 96; of flowering stove plants, 620; of tropical "fruit" trees, 105 (but this does not always mean edible fruit); of exotic useful, including medical plants, about 150, among which are many of great rarity; of Araliads, between 30 and 40; nearly 50 Bromeliads; of Ferns and Lycopods 343, of which 37 are tree Ferns, and above 60 quite new, and for the most part extremely handsome. Moreover there are nearly 600 Orchids some of which are very rare, and we believe quite unknown in this country. We observe an announcement by Mr. Linden that he has now withdrawn his collectors from tropical America, and is receiving consignments from Cochinchina, Celebes, and Mindanao. His London Agent is R. Silberrad, 5 Harp Lane, Great Tower Street.—*Gardener's Chronicle.*

MR. FLEMING.—Of this distinguished gardener, one who has done so much by his spirit and example to make British gardeners and gardening so highly estimated, the *Gardener's Chronicle* says:

"The gardening world has heard with much gratification—let us even say with pride—that his Grace the Duke of Sutherland has recently appointed this most able and faithful servant to the great post of manager of the whole Trentham estate. Mr. Fleming is now succeeded in the detailed management of the gardens by Mr. Wren, a young man of much practical knowledge and ability—a former pupil at Trentham, and lately gardener to the Duke of Leinster at Carton, near Maynooth."

SIR JOSEPH PAXTON'S IMPROVED HORTICULTURAL BUILDINGS.

SIR JOSEPH PAXTON, M.P., who has probably as good a knowledge of the requirements of horticultural buildings as any man living, has patented a set of improvements in their construction. In carrying out his invention rectangular glazed frames are used, and are by preference longer than they are wide. These frames are combined in pairs at their upper ends by hinges, in such a manner that their lower ends may be set apart at different times to a greater or less distance, according to the horticultural purposes to which the buildings are for the time applied, and their upper ends are so arranged as to form good ridges, where two of the frames go together. Each pair of such frames is confined with the neighboring pair by distance-pieces of a few inches in length, which are made to lock or hold the neighboring pairs of frames correctly together, leaving an open space between; and it is by means of these openings that ventilation is obtained for the interior of the buildings. The openings are arranged to be covered, or for a time partly covered, by doors or flaps hung to the sides of the frames, such doors being by preference made to open or close in parts to facilitate the adjustment of the ventilation from time to time. The lower parts of the frames, when of wood, are shod with zinc, or other metal. In some cases, such frames as are above described are placed one above another, the upper ones forming a roof, and the lower ones forming inclined sides sustained by uprights. The ends of such buildings may be made of angular glazed frames, so arranged as to form different angular ends, or the ends may be made of wood, or of mats, or of other material.

FIG. 1.

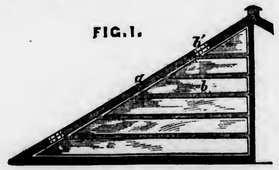


Fig. 1 of the annexed engravings is an end view of one-half of a horticultural building or glazed structure constructed according to Sir Joseph's invention. *a a* are the side frames, which are hinged together at their upper ends, and are in this structure inclined at an angle of 30° to the ground line, *b b* are triangular glazed frames, forming the ends of the of the structure; they are hinged to the side-frames at *b' b'*. If it is desired, the side-frames may be inclined at an angle of 60° to the ground line, and the end frames, to adapt them to the change of inclination in the change, may be turned one-quarter round.

FIG. 2.

Fig. 2 is an end view of one of the joints employed to combine together in pairs the side-frames, *a a*. In this figure, the joint is in the position which it assumes in fig. 1.

FIG. 3.

Fig. 3. is a similar view of the joint in the position it assumes when the side-frames are at an angle of 60° with each other.

The frames have each a metal eye fixed to them, and a thumb-screw passes through the eyes of the two frames, and screws into a nut beyond. Each frame has also a wooden block, with a curved upper surface fixed to its upper edge; and a curved ridge-piece is employed, which, resting on the curved blocks of the two frames of each pair, makes a tight joint at whatever inclination the frames may be set. The ridge-piece is held in position by pins at intervals.

FIG. 4.

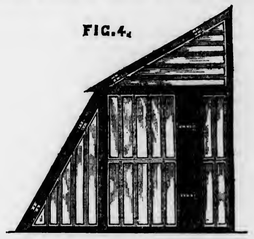


Fig. 4 is an end view of one-half of a structure formed from the same frames, *a* and *b*, and in which frames, *a a*, are placed one above another, the upper ones forming the roof, and the lower ones the inclined sides. In this structure a fixed framework, *A A*, is employed, and the roof is fixed to this by screws, and the side-frames may be hinged to the upper part of the fixed frame-work, *A*, all round in a similar manner to that in which the frames *a* were before hinged together in pairs.—*Lon. Mechanic's Magazine.*

PLANTS OF THE AMOOR REGION.—Some of the Amoor plants surprisingly resemble some of the species of the eastern parts of the United States; a similarity already pointed out in the Japan Flora, and even in that of Daouria. A recent and more thorough examination has hitherto, however, shown unquestionably either a specific difference between the Asiatic plants and their representatives in America, or, where identical, an unbroken line in their geographical distribution. This last statement is, we suspect, to be taken with some reserve, now that Dr. Asa Gray has ascertained beyond all question that the *Pogonia ophioglossoides* and *Malaxis lilifolia* of the United States occur in Japan, without the slightest difference of structure.—*Gardener's Chronicle.*

NEW HARDY PINES.—*Pinus Don Pedri* and *P. Bounapartea* or *Veitchia* are said to be hardy in England.

NEW VEGETABLE.—A new Spinage has been introduced into England, differing from the old one in being a *perennial*.

GERMAN STOCKS.—The *Illustrirte Garten Zeitung* says that the German seedsmen produce the fine double varieties so well known, by growing the plants in the richest soil; watching them, even from infancy, to see that they receive no check to their luxuriance, either through want of water, or from any other cause, until the seed is fully matured.

FLORA OF OUDE.—This fine kingdom of India, the annexation of which to the Anglo-Indian Empire has probably been one of the immediate causes of the great war in that section of the world, appears to be a glorious country for flowers. A recent writer says:

"The whole kingdom is studded with magnificent trees, whose dense foliage and beautiful blossoms add a charming feature to the general aspect of the surface of this country, so favored by nature, but so ungratefully treated by man. The Banyan, with its ever-spreading branches, producing numerous offsprings of the parent tree, round which they cluster, ever multiplying, ever increasing; the Mango, with its yellow and luscious fruit; the Sheesha (?), resembling our Oak in stateliness; the Tamarind, thickly shaded and covered with its red Bean-like produce; the Jamun (?), with its purple Plum-like berries, beautiful to look at, but sharp and acid to the taste; the Peepul (*Ficus religiosa*), with its round thick leaves and shady branches; the Bale (?), with its cocoa-like nuts, whose hard shell contains the sweet juicy fibres along with the Aloe-like bitter of its manifold kernels; the wild Fig; the Cotton tree, with its snow-white blossoms so charmingly relieved by the surrounding green; the Jack (*Artocarpus integrifolia*), with its huge trunk and its curious rough surfaced monstrous oval produce; the Mahooa (*Bassia latifolia*), from the fruit of which a spirit is distilled; the Owla (*Phyllanthus Emblica?*); the Neem (*Melia Azedarach*), with its long thin zig-zag shaped leaves, so useful to native medical practitioners; the Sandal, and other handsome trees are everywhere discernible, either in fine groves or standing in solitary grandeur, looking proudly on the rich fields beneath, or appearing to protest, by their verdancy and beauty, against the violence which desolates the country around them."

NEW ROSES.—The following are spoken of as amongst the novelties to "come out" during the season:—*Perfection*, dwarf rose-colored Bourbon; *Rosa Bonheur*, H. P. red striped with white; and *L'elegante*, H. P. cherry red in large panicles like a multiflora Rose; *Lælia*, H. P. satin rose.

THE COTTAGER'S KALE.—We have already noticed this as having a high character amongst the new English vegetables. More recent accounts seem to confirm what has previously been stated of it. It has much resemblance to the well known *Brussels sprouts*.

THYRSACANTHUS RUTILANS, the *Gardener's Chronicle* says, is properly T. Schomburgki.

Horticultural Societies.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The April meeting was held on Tuesday evening, 19th ult.

There was a very beautiful display of plants, vegetables, grapes, &c., exhibited by J. Cook, gardener to Rev. J. M. Richards; Jas. Eadie, gardener to Dr. James Rush; A. Felton, Jr., gardener to Mr. Duhring; John Hamilton, gardener to D. Rodney King; Mark Hill, gardener to M. W. Baldwin; Henry A. Dreer; Jerome Graff, gardener to George H. Stuart; William Gracie; Matthew Hegarty, gardener to Joseph Harrison; Thomas Meehan; John Brooks, gardener to C. F. Abbott; John Landers, gardener to S. T. Altemus; R. G. Swift; John Pollock, gardener to James Dundas; John McLaughlin, gardener to Isaac Baxter; James Thomas, gardener to A. J. Bucknor; John Randall, gardener to J. D. Whetham; Peter Raabe, Thomas Robertson.

The Committee on Plants awarded the following premiums, viz:

COLLECTION OF PLANTS.—First-class, ten plants, Best to John Pollock, gardener to James Dundas; second-class, six plants, best, to James Eadie, gardener to Dr. James Rush; third-class, best, to John Hamilton, gardener to D. Rodney King.

SPECIMEN PLANTS.—First class, best, to John Pollock, for Begonia Sanderslii; second best, to William Gracie, for Genista Racemosa.

SPECIMEN PLANTS.—One pair, best, to John Pollock, for Euphorbia splendens and Rhynospermum Jasminoides.

TABLE DESIGNS.—Best to John Hamilton.

Also the following Special Premiums:

One of $3 to John Pollock, for a collection of Fuchsias.
" $1 to Henry A. Dreer, for Polyanthus.
" $3 to James Eadie, for collection of Cattleya.
" $1 to J. Hamilton, for a General Collection.

PELARGONIUMS.—Six plants, six varieties, best, to Jas. Thomas, gardener to A. J. Bucknor. The Committee call particular attention to this collection of Pelargoniums, perhaps the best ever exhibited. Second best, to John Randall.

CINERARIAS.—Six plants, six varieties, best, to J. Thomas. Second best, to M. Hegarty.

NEW HOLLAND PLANTS.—Six specimens, best, to John Pollock.

ROSES, perpetual bloom, twelve plants, twelve varieties; best to H. A. Dreer. Second best to same.

AZALEAS, six plants, six varieties; best to William Gracie. Second best to John Pollock.

SPECIMEN DWARF AZALEA.—Best to James Eadie.

HYACINTHS, six plants, six varieties; best to M. Hegerty. Second best to John Pollock.

PANSIES, ten plants; best to J. Thomas. Second best to Henry A. Dreer.

The Committee notice two flowers of the Victoria regia, exhibited by John Pollock, gardener to James Dundas. Also, six plants of a new seedling Verbena, the Philadelphia, grown by A. Dressler, deposited by H. A. Dreer.

The Committee on Fruits awarded a special premium of $3 to Jerome Graff, gardener to George H. Stuart, for a bunch of Golden Hamburg Grapes, exhibited for the first time. The Committee remark that it is very appropriately named, being a fruit of a clear light golden transparent color of rounded form, and promises to be a very early and an abundant bearer; flavor rich and saccharine.

To Mark Hill, gardener to M. W. Baldwin, for two dishes of Black Hamburg and White Syrian Grapes, fully ripe, a special premium of $2.

To John Cook, gardener to Rev. J. M. Richards, for a dish of very fine Black Hamburg Grapes, not fully ripe, or they would have been entitled to the first premium, a special premium of $1.

The Committee call notice to a very handsome dish of ripe Black Hamburg Grapes, not in competition, presented by William Saunders. They also notice the Apple-pie Melon, a gray oblong fruit with greenish seed, and when stewed makes a very excellent apple sauce, as shown by samples exhibited by D. Rodney King.

The Committee on Vegetables awarded the following premiums:

ASPARAGUS.—Best to J. Cook. Second best to John Brooks.

CUCUMBERS.—Best to same. Second best to Wm. Gracie.

RHUBARB.—Best to Thomas Robertson. Second best to John McLaughlin.

They also awarded a special premium of $1 to John Cook, for a dish of Tomatoes. Also, of $1 to the same, for fine specimens of mushrooms.

On motion of Dr. Kennedy, a Committee was appointed to confer with the City authorities on the subject of setting apart a portion of Fairmount Park to the use of this Society.

Several new members were elected, and several nominated for election. HENRY HAY, Rec. Sec.

WE are happy to notice an increased interest in the Monthly Exhibitions, and hope that ALL the members, both amateurs and commercial gardeners, will feel it their duty to contribute something every month.

It is seldom that we have had so many objects of interest exhibited. Amongst them were several very fine flowers of the Victoria regia, and some noble specimen plants from Mr. Dundas; a collection of Pelargoniums that would have excelled even a London Show, from A. J. Bucknor's gardener; a fine collection of Cattleyas, in bloom, from Dr. Rush's gardener; besides a gorgeous display of specimen plants, Azaleas, Cinerarias, Fuchsias, &c., from other collections.

There were also some articles not noticed by the Committee: A fine dish of forced Currants, of fine color, from John Cook, gardener to J. M. Richards, Stead's Bouquet Stand, and a new variety of Solanum or Tomato, in flower. The new seedling Verbena, exhibited by H. A. Dreer, is quite distinct; somewhat in the style of Imperatrice Elizabeth, but the color white, pencilled and edged with a kind of brick color.

CINCINNATI HORTICULTURAL SOCIETY.

MARCH 12th.

President Hazeltine in the Chair.

The subject for discussion—the planting, pruning, and general cultivation of fruit trees—being called up, a social, lively and pleasant debate followed.

Mr. D. O. Keeder commenced by observing that the amputation of large limbs was sometimes necessary, though in general very properly to be avoided, if possible, but of which course the cultivator himself ought to be the best judge. Some kinds of fruit require to be trained more high, and others more low. The Bellefloweer and Smith's Cider Apples should be started high for instance, and the early Strawberry and Carolina Red June, lower. The latter kinds will produce sooner, are more easily picked, and are safer from severe winds.

Mr. Mottier stated that his course in the management of fruit trees was first to plow the ground deep with a double or Michigan plow, drawn by four horses or oxen—then mate the holes from about four to six feet in diameter, planting the trees very little, if any, deeper than they were in the nursery—he spades round them frequently. For peach trees he would trim them off down to about two feet, cutting off the side branches, and afterward select the best buds and in the best places for the future limbs. He allows his trees plenty of room. If the soil is not rich enough, he applies manures after the planting. He treats his young apple-trees in the same way, only he does not head down so far. But he aims to get the heads rather low, chiefly to avoid damage from the scorching of the sun. Cherry-trees particularly low. He prunes when they are young, as soon as possible. He therefore escapes the necessities of ever amputating large limbs; when any of his trees are weakly, grow badly and in deformity, he replaces them as soon as possible. All his trees have flourished well and produced fine fruit, as the society have often witnessed. A neighbor of his who planted his trees in post-holes, as it were, and pursued otherwise also a different plan, has, as might be expected, almost entirely failed.

Mr F. G. Cary remarked on the wonderful difference of opinions and practices which prevailed, as stated in numerous books and publications, as to the time, mode and operation of even planting a tree. Science seemed to have very little to do with it. With regard to trimming the peach, he was for cutting off the top down to two and a half to three feet in height, to bestow strength and nourishment to the whole tree. Most of the laterals would die off in winter, and those which remained would only be weakly; therefore cut them off entirely. Good buds at the proper place on the stock or stem will grow and do well; four or five healthy branches are enough—all that are required. Cutting down to only one foot was not correct; this he considered extreme in practice. Set your tree on the surface earth or mold, not down in the paw-paw or compact subsoil. Roots will then have a good range against the worm, and there will be no injurious sprouts from the bottom of the stem. Roots are best near the surface. The general inclination of all trees toward the east is owing to the prevalent westerly winds. They blow three-fourths of the time westward during the year. In the prairies, trees almost lie down to the east, such is the force of the westerly gales. All trees suffer more or less from the effects of the hot west or south-west sun—cherries especially. Some shade successfully with boards driven in the ground triangularly; but low branches, at any rate, are best—therefore promote branches rather thickly toward and lower down on the stem to the west and south west.

Mr. Mears did not recommend the purchase of three and a half feet trees, instead of seven. He would cut off the top of peaches, pears and cherries, to within eighteen inches. Standard cherries to within three feet of the ground. The Hart cherries must be trained rather high.

Mr. Addis remarked that for a one year-old peach tree and one inch and a half in diameter, he would advise the cutting off down to three feet.

Mr. Riley considered it a rather simple matter to affect the right growth. Lopping is necessary at the right time. Peach trees planted in corn have succeeded best with him. He pinched in his peach trees; it saved him pruning the first year. He pinched in the first season to obtain the right direction he required for his branches He cut off all laterals a year old, and encouraged what number he required toward the south-west.

Mr. Howarth, on the subject of the injury or destruction of our shade-trees, especially in the city, by insects and caterpillars, remarked that the matter should be taken in hand in time, if possible. It was best to destroy caterpillars in the web, of course—as to do it in the chrysalis or pupa state involved much labor. He was for scorching them in the web by some inflammable matter.

Mr. W. Orange considered that there was a very simple and effective plan, viz: Two nails fastened at the end of a pole, in which is fastened a piece of a rag or two dipped in tar—give this a twist round the web or nest, and the whole is very easily dislodged, cast on the ground, and then trodden upon. Thousands can thus be very readily destroyed in a very few hours.

Fourteen new members were elected.

MARCH 19th.

Various members reported that the fruit buds had suffered very little from the late frosts.

APRIL 2nd.

Thirteen new members were elected.

NEW HAMPSHIRE STATE AGRICULTURAL SOCIETY.

$100 GRAPE PREMIUM.

Mr. Charles H. Dana, of West Lebanon, New Hampshire, places at the disposal of the New Hampshire State Agricultural Society one hundred dollars, to be awarded to the person who will present the best kind of Grape for garden or vineyard culture in this climate.

That the Committee may be able to judge correctly of the merits of each kind presented, they should be planted in the same locality and receive the same cultivation.

Mr. Dana proposes to conduct such an experiment himself, by planting and cultivating all the kinds offered for this premium.

New and rare kinds of Grapes, sent to Mr. Dana, free of expense to him, will be entered in competition for the premium.

Roots are preferred, but cuttings will answer.

Cuttings two inches in length may be sent by mail. The ends should be sealed, and the cuttings wrapped in damp paper.

The lists will be open for competitors during the months of April and May, 1859.

The premium will be awarded in the autumn of the second year after planting. In case the same kind of Grape should be offered by different competitors, or in case different kinds should prove of equal excellence, the Committee will be at liberty to divide the premium, or otherwise award it in their discretion.—ED.

Mr. Dana having communicated to me his intention to make the foregoing offer of a premium, I am happy to recommend his laudable attempt—to extend and improve the culture of the Grape—to all the lovers of that delicious fruit.

The failure of the Peach and the Plum, and the great uncertainty of the Pear, and recently of the finer kinds of the Apple, also, in the valley of the Connecticut, and the fact that our soil seems natural to the Grape, and has proved capable of producing it in abundance and of great excellence, shows Mr. Dana's offer of a premium to be very judicious and timely, while his personal character is a sufficient guaranty that the experiment will be conducted with fidelity and honor. CHARLES B. HADDUCK.

West Lebanon, N. H., April 15, 1859.

HARTFORD COUNTY (CONN.) HORTICULTURAL SOCIETY.

At the Annual Meeting, held on the 2nd of April, the following officers were elected for the year ensuing:

President—Gordon W. Russell, M.D.
Vice-Presidents—J. S. Butler, M.D., Edward Bolles, Hartford, and 17 other gentlemen.
Corresponding Secretary—D. S. Dewey.
Recording Secretary—M. C. Weld.
Treasurer—P. D. Stillman.
Auditor—S. H. Clark.

NOTE.—Our Society has been in active existence for ten years, and during that time has accomplished great good for the cause of Horticulture. Its only pecuniary resource for nine years was the annual fee of one dollar from each member, and the amount thus raised was mainly absorbed in contingent expenses; so that our healthful progress from year to year may be mainly attributed to the zealous emulation of contributors and competitors, for the sake of the cause, rather than to the stimulus of premiums.

For nine years our exhibitions were held every Saturday afternoon during the summer and autumn, terminating, usually, with a happy horticultural festival. Last season we adopted the plan of fortnightly exhibitions, and the result was satisfactory. A plan was introduced, for the first time, last year, of selling at auction, for the benefit of the Society, at the close of each exhibition, such fruits and flowers as were donated by members for this special purpose. This was a success; for, in addition to the extra funds added to the treasury thereby, to be expended in premiums, many specimens and collections of choice fruits were placed within the reach of such as were able and anxious to purchase them, and which would have been otherwise unattainable.

It has been the custom of this Society, every spring, to collect and disseminate throughout the county, scions of the most desirable kinds of fruit, particularly apples and pears; and it has been a noticeable and pleasing fact, that some of the finest specimens on the tables of the Society at some of our late Annual Fairs and Festivals, and also at many of the Summer and Fall Exhibitions, have been grown on grafts which were gratuitously distributed by the Society during the early years of its existence.

D. S. D.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. JUNE 1, 1859. VOL. I.—NO. 6.

CALENDAR.

6th Month, June, 1859, 30 Days.

Moon's Phases		Boston.	Philad'a.	Baltimore	Charl't'n
	d	h m	h m	h m	h m
New.	1	2.26 mo	2.09 mo.	2.03 mor.	1.51 mo.
First Quarter.	7	6.04 ev.	5.47 ev.	5.41 eve.	5.29 eve.
Full.	15	5.34 mo	5.17 mo.	5.11 mor.	4.59 mo.
Last Quarter.	23	9.48 mo	9.31 mo.	9.25 mor.	9.13 mo.
	30	9.57 mo	9.40 mo.	9.34 mor.	9.22 mo.

Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	1	4.25	7.29	4.33	7.21	4.36	7.18	4.53	7.01
	7	4.22	7.33	4.31	7.26	4.34	7.21	4.52	7.04
	15	4.22	7.38	4.30	7.30	4.33	7.27	4.52	7.08
	23	4.23	7.40	4.31	7.32	4.34	7.29	4.52	7.11
	30	4.25	7.40	4.34	7.33	4.36	7.29	4.54	7.11

This Calendar will answer for the sun for any place in the same latitude.

Hints for June.

FLOWER GARDEN.

JUNE, the month of Roses, having arrived, the preparations of the past six months ought to be now bearing their harvest of enjoyment to the proprietor. And to return to the Rose,—the queen, or the empress, or rather the most perfect,—the true woman of all flowers,—no care that can be bestowed on it will be a fair recompense for its matchless beauty and loveliness. The Summer or June Roses are not so much cultivated since the many fine kinds of perpetuals have come into existence; but these, in order to derive all the beauty they are capable of affording, must have a special treatment. As soon as the first flowers are fairly faded, they should be cut off several buds below the flower; from the shoots which will then be encouraged to push from the remaining buds a very free bloom will be received some weeks afterwards. The green fly is often very troublesome on the young growth of the Rose. We have been recently experimenting, and find that any of these soft-skinned insects, green fly especially, are immediately killed by being suddenly plunged into water heated to 125°, without any injury to the plants. This will be good news to our lady gardeners, to whom tobacco-water, Scotch snuff, and the many other nasty infusions so often recommended, must have been enough to disgust in the care of their pets.

Every opportunity will, of course, be taken to keep down the weeds. As soon as they are barely visible, the ground should be hoed over lightly, and the surface afterwards broken fine and smoothed over with the back of a small rake. This not only gives a neat and cared-for appearance to the flower-beds; but the free admission of air, which a thorough pulverization of the surface-soil effects, is one of the best means of keeping the soil from drying out, and thus avoiding the necessity of frequent waterings, which, though they cannot at times be avoided, have always attendant disadvantages. Should soil so finely raked appear to "bake,"—that is, form a crust on the surface—after heavy rains, all you have to do is to hoe and rake it over again. It will be any thing but labor lost on your flowers.

As soon as Tulips, Hyacinths, Lilies, and other bulbs have done flowering, and the leaves at their base finished growing, they are better taken up and put in flower-pots, mixed with dry sand, and set in a dry place till the season of planting in October again arrives.

FRUIT GARDEN.

STRAWBERRY time has doubtless had the effect of stimulating the resolves of the owners, to have "some more of them" another year. Where this is decided on, take care to give the runners every chance to perfect themselves, by providing good rich soil for them to run into, and by thinning out the weaker ones, that they may not rob and impoverish the rest. When the Raspberry has done bearing, the old fruit-bearing canes should at once be cut out, and also many of the weaker suckers, leaving only about six to each square foot to perfect themselves for bearing another season. The fall-bearing kinds are much aided by having the bearing shoots of the present season cut back severely about this time, say to within two feet. There are some who slyly hint that many of this class owe their sole reputation to this practice; but this is by no means certain.

The mildew on the Gooseberry will appear about this time. It is now a pretty well ascertained fact, that any thing that injures the tissues of the leaf, will be followed by an attack of mildew on the part so injured. The Gooseberry luxuriates naturally in mountain districts, and in a moist atmosphere, and as soon as our dry seasons commence, the leaves are injured and mildew appears. Any thing, therefore, that will favor moisture about the bush, will prevent mildew. Partial shade, salt hay, deep soil, and similar experiments may be tried.

Pears and Apples, especially those on dwarf stocks, ought not to be allowed to bear too freely; the irreparable injury, and often death, of the tree is frequently attributable to this mistake. So long as a tree appears to grow freely, no injury from over-cropping is likely; but as soon as they seem to have no inclination to make wood, something is wrong, and it should not be permitted to bear much fruit. Attention will now be required to the nice operation of summer pruning. An article in our last number, on the Grape Vine, will explain the principle, which can be applied to all kinds of fruit trees.

VEGETABLE GARDEN.

IN Northern latitudes, and even in many parts of the Middle States, the first week in June is the chief period chosen for the main crops of Corn, Beans, Squash, Melons, Cucumbers, Okra and other kinds of seeds that are liable to rot if sown before the ground has become quite warm. Most persons plant Corn in hills. This is an error in garden culture. It should be sown in drills, and at such distances as ultimately to be eighteen inches apart. In hills each plant robs the other. It is so employed in field culture for the convenience of hoe harrowing by horse-power. Pumpkins and Squashes grow very well amongst Corn, neither crop seeming any the worse by the presence of the other,—probably each feeding on the different matter.

The Swede Turnip or Ruta Baga should be sown about the end of the month. A well-enriched piece of ground is essential, as by growing fast, they get ahead of the ravages of the fly. Manures abounding in the phosphates—bone-dust, for instance—are superior for the Turnip.

Cabbages and Broccoli of all kinds for fall use, are to be planted out this month, and the ranker the manure, the better they seem to grow.

Celery for early use is often planted out this month, though for winter use July or August will be early enough. It is best to set out in shallow trenches, for convenience in watering, the Celery being fond of hydropathic appliances. If the ground has been deeply subsoiled, and the subsoil well enriched, the trenches may be near a foot in depth, for convenience in blanching; but beware of planting down in poor barren subsoil. Many plant in double rows. Where very superior Celery is not an object this will do, but the single-row system is the best for excellency. The season is now arriving when the advantages of subsoiled ground will be apparent. In such soil plants will grow freely though there be no rain for many weeks.

Sweet Potatoes must be watched, that the vines do not root in the ground as they run, which will weaken the main crop of roots. They should be gone over about once a month, and with a rake or pole, the vines disturbed somewhat from their position.

Endive is becoming very popular as a winter salad. Now is the time to sow. The Curled-leaved is the most desirable. Sow it like Lettuce.

Carrots and Beets for winter use may still be sown on rich, light soil, and often make roots much preferable for flavor and tenderness to those sown earlier in the season.

Herbs for winter use should be cut just about the time they are coming into flower. They should be put in an airy place, but in the shade, to dry, and be turned over every other day for a week, before being tied up in bundles and hung up in the store-room. Clean housekeepers put the dried herbs in muslin bags, which keeps dust, flies and spiders from injuring.

Onions, on showing signs of decaying foliage, should be drawn up and thoroughly dried before stowing away. The great secret of keeping Onions is to get them first thoroughly ripe, and then thoroughly dry, before putting away in the store-room.

NURSERY.

WE need scarcely observe how necessary it is to keep down the weeds, particularly in this department, and especially around newly planted trees. Much has been said about mulching, which means covering the soil with grass, leaves, or any substance that will prevent the evaporation of moisture; but the very best mulch is a constant hoeing and pulverization of the surface, by which air is admitted and evaporation retarded. This "mulch" has not the objection other kinds are liable to, of obstructing the valuable advantages of the sun's rays, and the "dews of heaven" on the soil and roots. Beds of seedlings,

evergreens especially, must be early attended to in this respect, as very many seedlings are destroyed in the removal of large weeds; and besides, if any chance is given to the seedlings to spread before the weeds grow too large, they will smother and keep them from growing. Tender evergreen seedlings must be guarded from hot drying winds and scorching mid-day suns during the first year of their existence. It is also a good plan to riddle fine sandy soil over them, which in some measure helps to keep the soft seed stems from injury from sun and wind.

As soon as ever the young shoots of any shrub or tree that it may be desirable to increase, have grown strong enough to bend without breaking, the season for layering will have arrived. It is advantageous to have some fine rich sandy soil at hand to cover over the layer with, for the young roots to push into. It is also better to shorten the layered shoots, as it causes new shoots to appear, which are always the precursors of new roots. Evergreens that may have formed a lax habit, and which are desired to assume a more compact state, may now be disbudded, which consists in taking out most of the few strong buds. The strength of the tree will then be thrown into the numerous remaining small ones, and a very much improved form will result.

Some time ago we stated, that if the young growth of evergreens, when approaching maturity,—that is, when about to change their watery nature for one of a firm, moody consistency,—were taken off and placed in a slight bottom-heat, they would root readily in a few weeks. A friend informed us afterwards that such *theories* were doing great injury,—that evergreens *could not* be rooted so readily. We give no advice in these columns not founded on our own experience and practice. We believe the discovery is entirely our own, and we give the knowledge freely, valuable as we esteem it, as we have done in many other instances. We call attention again to it, because the season is near at hand when parties may test for themselves the simplicity and practicability of the plan.

FORCING.

It will be very necessary for those who intend to do any thing in this line another season, to begin to think about it now. The Strawberry, especially, is one of those things, above all, that is not only worth forcing, but very easy to force. About this time procure some two or three-inch pots, filled with good rich soil, and plunge in the strawberry-beds. Into these pots peg the strongest runners, and let them root. As soon as the pots are well filled with roots, they may be taken off and shifted into 6-inch pots, and these again plunged into a border of soil, in a light situation, and not too much exposed to drying winds or burning suns. The only care then necessary will be to see that they never suffer for want of water. By frost they will be ready for forcing.—Many "forcers" do not take this trouble; they merely thin out the runners, so as to give those left a chance to get strong by August or September, when they are taken up and potted at once into 6-inch pots. Fruits growing in pots, or borders in now fruiting or intended to be next year forced, must be carefully guarded from attacks of insects; and while studiously incited to grow freely by manure-waterings and regular attention, the growth should be regulated to suit every part of the plant.

It should always be an object to get a free, vigorous growth as low down on the plant as possible, and this can only be attained by frequently pinching and stopping off the strong and free-growing shoots, thereby throwing more vigor into the lower and weaker ones. Towards the end of the season, as the plants seem inclined to cease growing, water should be given only in such quantities as will barely preserve the leaves dry and healthy, and the atmosphere should be kept as dry as possible. These two conditions are found to be very favorable to the production of flower-buds for next season's crops.

These remarks are peculiarly applicable just now to the Plum and Cherry, which are amongst the earliest to form their fruit-buds for the next season.

As soon as the Grapes in vineries begin to show signs of coloring, it is a good plan to white-wash or otherwise shade the glass. The full action of the sun on the bunches is unfavorable to high color. The darkest bunches are usually found in those houses well filled with healthy, luxuriant foliage, capable of well shading the fruit beneath.

HOT AND GREENHOUSE.

Oranges, Oleanders, and other large plants in pots or tubs, that are now commencing to grow, should be shifted into larger or fresh soil if they require it. This is generally known by the growth being weak, and the leaves small. Sometimes the plants are sickly through the soil having become sour, and the roots, in that case, are rotten. This is usually known by the leaves of the plant being yellow, and of a very sickly appearance. The best way is to take out and wash the roots, just before or as growth is commencing, and repot anew in fresh soil, employing the smallest pot or tub that the roots can be well got into. Cuttings of Geraniums or similar plants, required for flowering in houses next winter, should be put in at this season. Camellias and Azaleas, and other things that it is desirable to inarch, may be operated on as soon as the wood is firm enough; that is, as soon as it has progressed from the watery to the woody state.

Communications.

LETTER FROM TEXAS.

BY C. G.

Mr. Editor:—I send you a few notes on the fruits and vegetables of this region, which may interest some of your readers:

Figs grow very well here, and at all points between this and the coast. In the low prairies near the coast there might, and ought to be, produced enough to supply the demand of the entire country. Many varieties of figs are growing in Texas, but as yet I am not aware that any one has attempted to raise them as an article of export.

Very fine *Oranges* and *Lemons* are produced on Galveston Island, and along the coast, but the trees are liable to be killed by the sudden changes in the spring of the year.

At present we have nearly the same garden vegetables that are grown in the vicinity of Philadelphia. When we have means of irrigation, the more hardy vegetables may be had fresh from the garden the whole year with slight care. *Cabbage, Lettuce, Beets, Radishes, Carrots, Parsnips, Turnips, etc.*, may usually be had from the garden thoughout the entire year. But this must be understood only when there is the means of irrigation.

Peaches, Nectarines, Apricots and *Plums*, grow well, I think, in all parts of Texas. Some very fine *Apples* were produced in this neighborhood last year. I think *Pears* may also be grown with care. Wild grapes grow in great profusion, but chiefly of one or two kinds. The "*Mustang Grape*," as it is called, is a most prolific bearer, and makes a fine Claret wine. In many counties, quite thickly settled, I have no doubt but the product of this wild vine, made into wine, would annually be much more valuable than the crop of cotton. These grapes ripen early in July, and I have found the vines hanging full late in December. There are, probably, twelve or fifteen varieties of this one kind, perhaps more; and some of them I think might be improved by cultivation so as to make a good table grape.

There is a native *Honeysuckle* growing here, which I do not recollect to have seen anywhere else, and I should like if you could get it, for variety, if nothing else. We commence our spring gardens early in February.

POROUS VERSUS PAINTED POTS.

BY DAKRY.

Dedham, April, 1859.

On a recent visit to a skilful and intelligent gardener friend, I was surprised to find him painting his pots! This shutting up the pores is so much at variance with the common theory and practice of successful pot-culture, that I smiled at what I considered so foolish an experiment. After a little talk on the subject,— though by no means converted,— I could not but admit that the prejudice against non-porous pots is often formed without due careful experiments.

The system of pot-painting, my friend contended, though not practised, he believed, to any great extent, is by no means new, some of the most successful plant-growers round London having adopted it years ago, and (it is said) with the happiest results. It is contended, and with much apparent truth, that large plants in painted tubs, or those of slate or other non-porous material, were found to do better than in a soft porous pot. It is also claimed as an advantage, that painted pots are less subject to the extremes of heat and cold; that they are cooler in summer and warmer in winter; or, in other words, what will keep out the heat will keep out the cold; besides effecting considerable saving in the labor of watering, pot-washing, &c.

At a meeting of gardeners a short time since, the subject came under discussion. My non-porous friend was there, strong in his zeal for two coats of paint. Without endorsing all the statements of my friend in favor of the theory, (now his practice,) I am by no means willing to condemn the thing without a fair trial. Who has given it a fair trial? Will you oblige us, Mr. Editor, with your opinion? Perhaps some of your correspondents may give, through the columns of the *Monthly*, their experience, which I think would be both interesting and instructive. Many of our most useful inventions and discoveries have had to contend for years against the prejudices of early, and too often hastily-formed, opinions.

The gardeners alluded to as taking part in this discussion, are all favorably known as experienced and intelligent men, but they considered a pot cannot be too porous. An amateur, who is also favorably known for his taste and experience in floriculture, and his experiments and successful efforts in the application of bottom-heat, as exemplified in his new system of propagation, took the same side, and opposed it with a logic and force of reasoning quite praiseworthy.

I would like to inquire, who has given the thing a fair trial? and with what results? Dakry.

[We have grown plants in painted pots, slate boxes, stone and iron vases, and in wooden tubs, as well as in the common garden pots. The question turns on the point, whether a good conducting or non-conducting material is best for the pot or vessel containing the plant; and it is obvious that much in the answer will depend on what particular kind of plant is grown, or in what situation it is to be placed. A porous, or an unpainted pot, being a non-conductor as compared with hard-glazed or painted pots, is evidently best for such plants that are exposed to a dry atmosphere, and which frequent waterings are apt to rot the roots of. On the other hand, strong-rooted plants, that require copious waterings, do very well, and frequently much better, when in hard, than in soft, pots. So far as our experience goes, we think the question does not admit of a general solution as applicable to all plants and all places. There are certainly very many plants that will do much better in painted or non-porous pots, than in the common way.—Ed.]

PLANTING RIVER BANKS.

BY F. A. N.

Dear Sir:

Coming down the Delaware River the other day, I noticed that a great deal of land is taken or redeemed on the borders of the river, and banked in. Now, if the proprietors of the respective front lots or lands wish to have a most effectual way to make said banks firm and safe from the inroads of the river at high water or floods, they cannot do better than to plant them, at distances of 30 or 40 feet, with the Juglans regia or the European Walnut. The roots of this tree, more so than the root of any other tree, will effectually keep the banks of rivers compact and proof against any inroads of floods or extraordinary high water; besides which, the tree casts a very good, dense shade, and yields, as you know, when attaining a certain age, plenty of most excellent fruit. The tree does very well here. There is a tree of that kind somewhere about Shippen and Ninth Streets I think, of the soft-shelled variety, that is now very large, and yields annually a great many bushels of nuts.

So much is said and written of plants for hedges, and perhaps the most suitable for them here is entirely overlooked. This is the *Cydonia* or *Pyrus japonica*, which will come well on all loams and clays, and even on sandy loams. No plant comes easier from cuttings; no plant will bear cutting, shearing, or trimming better to keep it compact and strong; as an individual shrub, none are handsomer when in bloom, and blooms more profusely; but nothing can surpass it as a hedge in bloom; no shrub excels it in beauty, and for hedges I think they can be raised as cheaply as any other hedge plant. It will certainly succeed better than the Osage Orange, and will make a hedge much quicker. It must be somewhat thinned at first, to make it stocky at the bottom; it can be made so thick there, however, that scarcely a rabbit can get through. The Gleditschia and Honey Locust will outgrow a hedge, as they are forest trees; therefore they will never make a perfect impenetrable hedge in the long run, as their tendency is to run up and form trees only.

[We once thought precisely as our correspondent in reference to planting river banks, but having subsequently considerable experience in their management, found trees very objectionable where the muskrat exists. They harbor and burrow under the roots, where it is impossible either to get at them or stop up their holes, and, as every one acquainted with banking knows, the little hole soon becomes a large "crevasse." Where the muskrat does not exist, or any effectual mode of destroying them is known, our correspondent's suggestions will be valuable.—Ed.]

DELICES D'AUTOMNE STRAWBERRY.

LIME AND SULPHUR FOR MILDEW.

BY G. T., CHESTER CO., PA.

I saw last October, at Raabe's, some pots of Strawberries full of berries, which he informed me had borne fruit the preceding summer—"Delices d'Automne." I engaged one dozen, which were sent me about the 1st of December. They were very small plants from runners. I potted them to keep till spring, but found them showing signs of blossoming under the Greenhouse staging. I brought them out, and now have a fine crop, all the plants having from six to a dozen berries on them, one measuring 4¼ inches, several nearly as large, and none less than 3 inches.

I noticed in the last number of the *Monthly*, quick lime and sulphur recommended as an infallible cure for mildew on Grapes. It may be, but it must be used with extreme caution. Late last fall, I feared red spider from the appearance of the foliage, and from some other cause, I could not ascertain what. The leaves would suddenly wither, and in a few hours dry up. I concluded to try the lime and sulphur. So I took two large-sized flower-pots and put in a few small lumps of lime, sprinkled them with water, and threw on a small quantity of sulphur, and as the fumes became disagreeable, left and shut up. Next morning by 9 o'clock there was not a live leaf in the house. There were 14 vines 25 feet long and some two dozen in pots, thickly covered with foliage. It being late in the season, the vines were not apparently injured, unless the weakness of the lower buds, and the absence of bunches on them this spring, as you noticed, when here with Josiah Hoopes, is the consequence.

THE ROSE OF JERICHO.

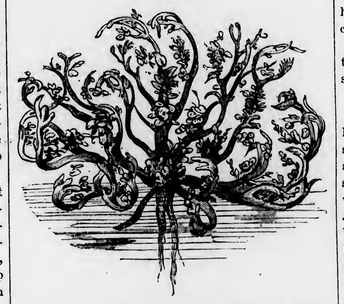
BY M.

The description of this plant in Chambers is evidently taken from Don,* who describes it as follows:

Anastatica, from *Anastasis*, resurrection; plant recovering its original form, however dry it may be, by immersion in water.

A. Hierochuntica. Native of arid wastes in Egypt, near Cairo; Palestine and Barbary; on roofs of houses and among rubbish in Syria; of Arabia in sandy deserts on the coasts of the Red Sea. Stem much branched, somewhat dichotomous, dwarf.—Leaves oblong or ovate, narrowed at base. Pods somewhat pubescent. The leaves fall off after flowering, and branches become dry, hard and lignous, and rise upwards and bend inwards, and contract into a globular form. In this state the plant is easily withdrawn from the sand and blown by the wind from the desert into the sea, and as soon as it comes in contact with the water (Fig. 1), it gradually expands, the

Fig. 1.



pods open and relieve the seeds, which are thrown again upon the shore by the tide, and scattered with the sand through the desert by the wind.

A description of this plant by M. Pomet, Chief Druggist to Louis XIV. of France, agrees essentially with that of Don.

Fig. 2.

A species of fern (fig. 2), the *Lycopodium lepidophyllum*, is frequently called the Rose of Jericho, from its habit of expanding whenever it is placed in water. It is so named even in the collections of some of our most learned societies. Mr. J. E. Mitchell, of Philadelphia, has a very handsome specimen.

* General History of Gardening, Vol. 1., p. 199.

In connection with the above, the following account, taken from a charming little volume entitled "Stray Leaves from the Book of Nature," may interest your readers. I hope that this remarkable plant may be instrumental in drawing the attention of some of them to the study of Botany, as it did the accomplished author of that book, which I would recommend to the perusal of all lovers of Nature.

"Long years ago I was in the Holy Land. It was the last day I was to spend near Jerusalem; and as the sun sank towards the blue waters of the Mediterranean, I found myself once more sitting on the banks of the Jordan. The air was perfectly calm; the tolling of a convent bell came faintly over the plain from Bethlehem, and mingled its well-beat cadences with the gentle playful murmuring of the sacred stream at my feet. By my side sat an Arab, tranquilly following with his eye the light clouds of his pipe, as they gracefully rose up in the clear, blue ether, but apparently buried in deep thought. I had known him in his desert home, I had eaten his salt. He was a Sheikh, and revered as a saint among his brethren. He had now come with me from the far South: first my guide, but now my friend and companion.

"Abu Abdallah was his name; so I said—

"'Abu Abdallah, do you believe in God?'

"'Thou sayest it, Oh, brother!' was his quiet answer.

"'But, Abu Abdallah, I fear you do not believe that your soul is immortal;' for the old Arab, though my friend for the while, was a sad thief, and when he swiftly rode through the desert, there were voices heard, it was said,—mournful voices of men,—who called for the sweet life he had taken from them.

"He gazed at me for an instant from the depth of that unfathomable eye,—the precious heirloom of a son of the Orient,—but vouchsafed not a word.

"I was struck by his silence, and asked again.

"'Oh, brother! oh, brother! thou wrongest me!' he said, and quietly rising, he seized upon a little shapeless mass that lay half hid in the fragrant herbs at our feet, and gently pushing it into the purling stream, he added, 'Has not the God of our fathers, whose prophet is Mahomet, given us the Rose of Jericho? And does not my brother, who reads the books of the wise men of the Franks, know that the burning sands of the desert are its home; that it delights in the fiery winds of the West, which scatter the caravan, and strew the sands of the Sahara with the bones of the traveller? There it grows and blossoms, and our children love it. But the season comes again, and it withers and dies. And the dread simoon rises and seizes the dry, shrivelled roots that my brother beholds there, and on the wings of the tempest the Rose of Jericho rides far, far East, until it falls upon holy soil. Now, let my brother wait, and he shall see!'

"And we did wait: waited until the shadows grew long, and dreamy dusk covered mountain and plain. And the little shapeless mass became a miracle indeed, and right before our eyes! The roots had expanded, the leaves had unfolded, life and breath had returned to the dead child of the Sahara, and the very blossoms began to show and to rival the faint rosy tints of the evening sun!

"I never forgot that lesson of immortality; I never forgot that Rose of Jericho. On my return to Europe, I learned that botanists called it 'Anastatica,' the flower of resurrection. I wished to know more about it, and that was the way I first learned something about plants."—Pp. 118, 119, 120.

[In our Specimen number we gave a brief account of the true Rose of Jericho. Since that notice appeared, attention has been called to the subject, and it has been found that in many cases, even in the collections of learned societies, the *Lycopodium* above figured, and a native plant at that, has got into the place of the genuine kind. Although our description accurately represents the genuine, we give it again to compare each kind with each other together. The American plant is much the more beautiful and in-

teresting, but has, as yet, not had the good fortune to become so celebrated in the narrations of travellers.

Fig. 3.

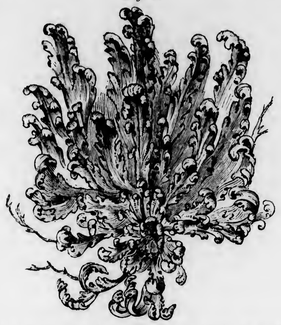


Fig. 3 shows the American plant when expanded. We are indebted to the kindness of Mr. W. G. Armstrong, of this city, for the description and drawings from which we have made the above engravings. The drawing of the Rose of Jericho was made from a specimen brought from Syria by the Rev. Lyman Coleman, and still in his possession.—Ed.]

PROTECTING TOMATOES, &C., FROM THE WORM.

BY S.

Swan's Station, Erie Co., Pa., April 10, 1859.

Dear Sir:

The following plan for protecting young Tomato plants from the ravages of the cut worm, I found in some of my prints last season, and practised with entire success.

At the time of transplanting from the hotbed, enclose the stock in a strip of paper about 3 inches wide, wrapped loosely around, and tied to prevent unfolding. Now set the plant in the ground sufficiently deep to bury about one inch of the paper, and no fears need be entertained for its safety.

Let me ask, what is the best method of supporting the Tomato vines during the fruiting season? S.

[A common and very good plan is to run a trellis along the Tomato rows, two or three feet wide at the base, and meeting at the top, representing the letter A, on which the vines are trained.—Ed.]

PARTHENOGENESIS.

BY B.

Fecundation—that is, the action of the male on the female organs of the flowers—is required for the development of the embryo. Such is the known axiom. Nevertheless, from time to time, the contrary opinion has been started, and there has been asserted the possibility and the occurrence of parthenogenesis—virgin birth. Schelver and Henschel were of that opinion; and surely such an opinion is rather startling, as it does away with the necessity of male organs. Still, all those who propounded such a doctrine (Spallanzi as early as 1786, later Bernhaur, Lecocq, Radlkofer, Raun, and others) singled out but two plants, in which they said they had succeeded in producing virgin birth, viz: Spinach and Hemp.

This question, lately stirred up again in botanical circles, particularly in Germany, has been refuted by that eminent botanist, Dr. Regel, in Petersburg. This gentleman has made a long and most minute series of experiments, the result of which he has given to the public. By it we learn that the idea of parthenogenesis has been based upon faulty observations; that in such plants, where none but female flowers were tolerated, or where the male anthers were carefully taken off, the microscope still showed stunted male flowers, sometimes hardly appreciable, often with but one anther, but that one perfectly developed, and its pollen the cause of fructification. All possible care could not keep pace with the growth of such male organs, and again the difficulty of taking them off increased the smaller they became. The continued observations of Dr. Regel led him to declare that parthenogenesis certainly does not occur with plants having visible sexual organs. We, however, shall not be astonished if, after a while, his dictum is assailed again.

[At page 12 of our journal we gave some account of the phenomenon styled Parthenogenesis. Since that appeared, the *Gardener's Chronicle* has had an article on the subject, tending strongly to show that such a mode of procreation really does exist in some plants. The question, in its present state, is rather of an abstract nature; but as the subject of hybridization, both of fruits and flowers, is a very important one to the cultivator, and this matter has considerable relation thereto, our correspondent's letter will be read with interest.

We may remark, in passing, that buds and seeds are so nearly related, that Parthenogenesis does not seem to us at all impossible. The Achimenes, Lilium, Allium, and some Grasses, often produce young living plants, in the place of seeds. Our correspondent, however, is well able to take care of his own views. —Ed.]

GOETHE AND MEYER.

BY DELTA.

Everybody knows Goethe, Germany's great, perhaps greatest, poet, if not by having read some of his works in German, still by translations, however meagre they be. Everybody knows, or knows of, his great dramatic poem Faust, and is aware what immense power of thought there is embodied in it. But very few people know that Goethe has brought this immense power of thought to bear also on science—strict and exact science. He is, in fact, no less a colossus in science than in poetry, and if such a thing was possible in nature, he would have carned an equal fame in either.

Goethe investigated, we might say, every science, appropriated, as it were, its principles, and then worked them up in his view of the great universe. His craving mind wanted to comprehend the universe, and in this sense any positive science was to him but a single round in the ladder by which he tried to gain that height, from which all creation would lay open to his view. It reminds one of Achimedes, who (not boastfully) said, "Give me a point outside of this planet to stand on, and I will move it out of its hinges."

Goethe, nevertheless, made two things in nature his *special* study: solar light and the metamorphosis of plants. They fascinated him during his entire life. On the first he published his "Doctrine of the Light," which was an entirely new system, and, we must add, did not stand the thorough criticism it underwent. His doctrine has been found erroneous. On the latter he wrote several essays and "fragments," all denoting his grasping intellect.

Ernst Meyer, Professor of Botany at the University of Konigsberg, in Prussia, and Director of its Botanical Garden, died some time last year. His works and teachings entitle him to the front rank of botanists, and it is he who said of Goethe:

"There is a legion of books treating of the laws of vegetable growth; still there is but one, and that one consisting of but a few sheets, which I could recommend without qualification. That book is Goethe's Essay about the Metamorphosis of Plants. And with this perusal of his genius we appear to fare as we fare with nature herself. Whoever reads it thinks he understands it, man or boy, amateur or critic. Still I doubt if ever any one has thoroughly comprehended it, for nobody, as yet, has been able to carry out Goethe's idea through the whole morphology of plants. Whoever confides in me, I advise him to read Goethe's book once a year, and slowly. According to what the reader has read, studied or observed, more or less, during each intervening space, he will understand more clearly what he comes to read again in the book of Goethe, as well as in the book of Nature."

Notwithstanding this high appreciation, Goethe, the Botanist, has not impressed the scientific world with his ideas. His plan is evidently too mighty for common understanding; the germ, though, is sown, and is sure to fecundate, sooner or later, the world's mind. Auguste de St. Hilaire, in his "Morphologie Vegétale," says of Goethe, that "he has anticipated the future, and reminds one of Linné's declaration, that the principle of flowers and leaves is one and the same."

Goethe wrote his Metamorphosis in 1790. Ernst Meyer's attention was drawn to it through the study of Robert Brown. He read it, re-read it, and reviewed it finally in the "Goettinger Gelehrten Anzeiger." This formed the starting-point of a correspondence between the two, which lasted until Goethe's death (we believe 1832).

Very interesting are the problems which Goethe asked his friend to solve, concerning organization, especially vegetable organization, and the replies of Meyer. The whole of them are to be found in the fortieth volume of Goethe's Works; but, as specimens of the nature of the men, no less than of the problems, we subjoin the following translation of a few summaries of them, which summaries are written by Goethe himself:

Goethe: Natural system a contradictory term. Nature has no system. She is the life and the sequence of an unknown centre towards a periphery, which we cannot distinguish. Therefore, the study of nature has no limits, whether we study the parts or the whole, the breadth or the height.

Meyer: It is against nature, that sense of rational order of ours, which we carry in our mind, and which we like to stamp on every thing as quasi the seal of our intellectual power. To make confusion worse confounded, we are all along compelled to look upon ourselves as parts of nature, and feel justified to suppose a steady rule in nature's apparently arbitrary working. But it is our instinct to try to solve this contradiction, and even the certain knowledge that we shall never be able to satisfy this instinct, does not extinguish it in us.

Goethe: The idea of metamorphosis is a truly venerable, but no less dangerous, gift of heaven. It carries us to chaos; it dissolves and destroys knowledge. It is like the centrifugal power, and would lose itself into space but for the counterpoise, viz: our instinct of specification, our steady persistance in what we once have acquired. And this is a centripetal power which no external influence can nullify.

Meyer: We meet here with a second contradiction, analogous to the first one, but putting both in inverted relations to one another. The human mind seems to go beyond its bounds in asking for a natural system; still it cannot disconnect itself from such claim. A principle of steadiness in nature seems to bar the flow of life, still there is steadiness in nature, as an impartial observer cannot fail to see. As conspicuous instances in point, I think I would name such plants which, on account of their strict peculiarities, cannot be classed with one species, often hardly with one family. Say Aphyteia Hydnora, Buxbaumia aphylla, Schmidtia utriculosa, Tamarindus indica, Xanthorriza apiifolia, and many others. Now, in following up the analogy of these two apparently insoluble contradictions in nature, we are overtaken by the hope that the one may prove the solution for the other.

Goethe: But since both powers work simultaneously, we would have to teach them likewise so, and that seems impossible. Perhaps another artificial procedure saves us here. Comparison with the notes which naturally progress, still, narrowed into octaves, keep their equal temperature. In spite of nature, this renders a really higher music decidedly possible. Therefore we must take to an artificial teaching. We must invent a symbolical method. But who can do it? and when done, who can understand it?

Meyer: Never mind the second question, if we

could but answer to the first. As botanical science looks to-day, there will be nobody to do the task to-morrow nor day after to-morrow. The balance is wanting in the study of botany. We study too much the knowledge of species, and too little the metamorphosis, and so there is no chance of a proper system being soon formed. To mention details, how little has there been investigated: the relation of the root to the stalk, and the relation of both to that which is the medium between them. Also the relation of the leaf to the internode, and the relation of both to the mediating knot.

These specimens will be sufficient to draw the attention of the botanists of our country to the works of both Goethe and Meyer. Perhaps the new light —the real truth—*the morphology* may go forth from this hemisphere of ours.

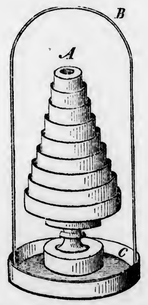
[The *morphology of vegetation*, or that part of Botany which treats of the changes or transmutation of one organ of a plant into another, is one of the most interesting studies the mind can engage in. That a juicy, luscious peach should be, in reality, but a bundle of peach *leaves* transmuted to another form and texture, is a wonderful fact. Among botanists we think Goethe's claims in the history of the idea, have not been overlooked. Most modern botanists do him full justice. Professor Lindley certainly has done so. Linnæus first hit on the idea: Goethe vitalized it—gave it a living existence as a part of science. To those outside of botanical history—the public at large—"Delta's" communication will be very interesting.—Ed.]

RUSTIC ADORNMENTS.

BY D.

Seeing a notice recently in your paper, of a flower-stand or bouquet-holder, the invention of Mr. Stead, I send you a sketch of one that I have had in use for some time, and which I find to answer perfectly. See fig. 1.

Fig. 1.



A is the flower-stand, which is made of tin, painted green. It should be made as follows: First form a cone or funnel of tin, and then, with strips of tin about an inch and an inch or a half wide, form the small compartments as shown in the drawing. These compartments are to be filled with water or wet sand, and the flowers inserted.

The flower-stand should be supported on an ornamental turned wooden base. The stand should be placed on the circular tin dish (*C*), in which a little water, wet sand or earth, can be put, with cut flowers, ferns or lycopodia. The whole should then be covered by the glass shade *B*. In a hot and dry apartment flowers will keep perfectly from a week to ten days. Should the moisture condense on the glass, raise the glass slightly for a short time, and it will disappear.

Fig. 2 is a design for a flower-stand, surmounted by a small aquarium, taken from the Italian Catalogue of Luigi Croff & Co., Milan. It can be constructed either of wire or rattan.

Fig. 2.

While on the subject of Rustic Adornments, allow me to insert an extract from the *Philada. Evening Bulletin*, which I fear will escape your *scissors:*

Rustic Adornments.—If gifted with a garden of any size, from a yard square upwards, you have ample means for keeping up a full supply of bouquets. If not, you can probably find room for a box of earth. If this be wanting, buy a sea shell—one which will hold two ounces of soil will do—and drilling holes in it, hang it with cord and tassels. One which holds only two ounces will maintain a beautiful flowering vine, which, as it grows and twines and blossoms over the braided cords, will prove the most beautiful ornament in the parlor.

A very pretty arrangement is that of ferns under glass. They are a self-supporting institution, watering themselves, growing their own carbonic acid, and form a most beautiful ornament for the parlor. Ivy will also grow in the house, and twine even pillars or any fanciful supports which may be extended to it. We have seen a design for a narrow, square and tall Gothic tower, with the receptacle for earth inside; the ivy growing out through a lower window, which was very graceful. With a little ingenuity one can be readily constructed, and used in the garden during the summer for any kind of climbing vines.

FRUIT CROPS, &C.

There are some peaches with us now. It seems strange there should be any. Apples are doing well: a fine crop. They scarcely ever fail here, though the crop is often small. R. S. Reeves.

Keysburg, Logan Co., Ky., April 29, 1859.

A MODEL COTTAGE.

At the Annual Meeting of the "Society far Improving the Condition of the Laboring Classes in England," several designs for cheap cottages were submitted, of which the following seems to us as remarkably neat and tasteful, and at the same time unpretending and economical.

We regret that the sketch was not accompanied with a ground-plan, but the internal arrangements of a house of this size must, of necessity, be very simple, and can be arranged to suit the occupant.

FROM ILLINOIS.

Egyptian Nurseries, Sandoval, Illinois, April 24th, 1859.

Fine show for fruit in this section, especially pears and peaches. Good-sized radishes were sold a week ago, grown in the open air. In fact, our climate is quite equal to that of Cincinnati. I have never seen such a country for wild flowers, or for the finer cultivated roses. Perhaps no position of the West is now attracting so much attention as this country.

We are getting hundreds of new settlers every day, mostly substantial farmers from Ohio and the bleak and frozen plains of Northern Illinois, Wisconsin and Iowa. The great railroad facilities, the richness and excellence of the soil, fine timber, good water and *peaches* a *sure* thing nine times out of ten, account for the popularity of Marion County. C. K.

LAURENCIANA ROSE.

BY FRANK.

This charming dwarf rose, so useful and ornamental as a bedding plant, is not by any means as common in this country as it deserves to be. This spring I planted some out in a bed, and they have bloomed the whole season, and have attracted the attention of all who have seen them. The flower is about the size of, and very strongly resembles, the pink or rose colored daisy. At one of the late meetings of the Pennsylvania Horticultural Society, a dwarf rose was exhibited called the *Picayune Rose*, which, from the description, I think must be the same rose. Its habit is dwarf and bushy, never exceding about 9 inches in height. If any of your readers should like a few cutting I shall be pleased to disseminate them.

Yours very truly, Frank.

The Gardener's Monthly.

PHILADELPHIA, JUNE 1, 1859.

☞ All Communications for the Editor should be addressed, "THOMAS MEEHAN, Germantown, Philadelphia," and Business Letters directed to "THE PUBLISHER OF THE GARDENER'S MONTHLY, Box 406 Philadelphia."

THE Publisher particularly requests that Advertisements should be forwarded so as to be received before the 20th of the month, or otherwise they cannot be inserted.

LISTS OF PERIODICALS AND NURSERIES.

FOR the convenience of our readers, we shall insert hereafter a full list of periodicals devoted to Horticulture and Agriculture, and also of the principal Nurseries and Horticultural establishments in this country, Canada and Europe. For the former we are principally indebted to that excellent and useful periodical the *Country Gentleman*.

We hope our friends will notify us of any changes that may occur from time to time.

HOW TO MAKE LAYERS.

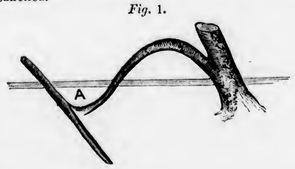
IF we compare a modern work on horticulture with one published perhaps fifty years ago, we cannot but be struck with the very little that we have apparently learned in half a century, and perhaps come to the conclusion that horticulture with us is as much at a stand-still point as agriculture is said to be in China and Japan. We find the same ideas ground and re-ground, till, like a beggar's patched-up coat, it is hard to tell what was the original color and texture of fabric,—but there is the original size and form—the same idea—the same garment. Like the economy of a too cheap boarding-house, the same food is hashed and re-hashed till it becomes insipid and nauseating, and we turn from the dish with loathing and disgust.

We must not, however, think that because wherever we turn to examine the bookmaker's shelves, and find nothing new, there are no ideas or practices current amongst us that were not known to our grandfathers; or that because in every book or paper or periodical we get, we see little besides the same cuts, illustrations and sketches over and over again, we are yet standing awhile longer to weep over the old gentlemen's graves.

Whoever spends but the smallest portion of his time out of his library and easy chair, and gives his eyes and ears, and we may say his hands too, a little exercise outside in the world and amongst men, will find many ideas and practices that the literary hacks and book-making scribes of the present day never dreamed of.

We are led into these observations by seeing recently in a work of some pretensions, a cut showing how to make a layer. It looked very nice in print; and, when done with a trembling hand and beating heart, in the way described, is often successful. In a nursery, however, where time is money, and the old maxim that "the more haste the less speed" is swallowed with a due mixture of savory mental condiments, a quick, steady workman is of great importance, and then the way of layering above noticed, and so universally printed about and sketched, fails in a majority of cases. We allude to cutting the notch on the *under side* of the shoot. The consequence in one-half the cases is, that the shoot breaks off, and the layer is lost; or, if not broken, presents somewhat the appearance of Fig. 1, and is very much weakened.

Fig. 1.



A much better plan, and one which is now much in vogue with the best propagators, is to cut the tongue *on the upper surface*. On bending down into the soil, the tongue is then twisted on one side, and the young shoot intended to form the future plant may then be lifted up and bent towards the parent as rapidly as one pleases, without any danger of it snapping off. There is another advantage in this way of layering. It is often necessary, in the stereotyped way, to place a chip or something between the tongue to keep it open. By this, the twisting of the tongue aside keeps it always separate from the old cut. Again, by this mode, very green and strong shoots can be operated on,—Magnolias, for instance, in June, and plants be got well rooted by fall, instead of waiting for the wood to ripen in August, when we have to wait for another year before our layer is sufficiently rooted to take from its parent.

Fig. 2.

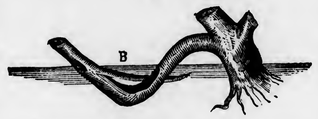


Fig. 2 represents the method now recommended.

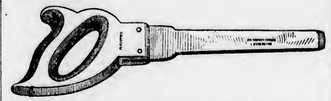
FRESH URINE AS MANURE.

[A CHEMICAL friend sends us the following. We should be glad to receive the article alluded to.—ED.]

I HAVE often thought that the advice to have urine putrescent before it is used for manure, was impolitic, but never saw a word on that side of the question till I received the last number of the *Journal of Pharmacy*. It contains an article showing the power of plants to assimilate fresh urea. I think it is from the *London Chemist*, but I cannot lay my hand on the number containing it at present. I think the readers of the *Gardener's Monthly* ought to have the article.

MENDENHALL'S DIBBLES.

WE welcome any improvement in horticultural tools and implements. The one we now give a representation of, we have received from Mr. G. Mendenhall, of the Sylvan Height Nursery, Richmond, Indiana, and find it to be, on trial, one of the most useful implements we have for a long time handled. Almost the only dibbles in use are broken or worn-out spade-handles; and every one knows what a labor it is to force these clumsy articles into any thing but the very lightest kinds of soil. Mendenhall's Dibble "goes in of its own accord." Instead of being round, it is nearly flat, the blade representing rather a mammoth screw-driver. The annexed cut, which we have had made from the one sent us, will give the idea.



Mr. M. informs us that they can be made for about $1, though the specimen sent for our inspection, being highly finished, cost more. Mr. Mendenhall deserves the thanks of all our readers for bringing so very useful, and yet so simple, an invention before their notice.

WEATHER, CROPS, &C.

W. W. CUSTEAD, Cleveland, Ohio, writes us:

"The weather here during the past month has been very cold and wet, but notwithstanding which, the prospect for an abundant supply of fruit of all descriptions has, we believe, never been more favorable than at present."

THINGS ABOUT BALTIMORE.

WE had just got through with our perusal of Sargent's new edition of Downing, and felt the glow of enthusiasm for beautiful trees, which that inimitable work cannot fail to kindle in the breast of every reader, when we experienced a great longing to see some of the best specimens of our newer trees, not as yet described fully in that delightful volume; and having heard that the Baltimoreans boasted of possessing one of the finest Cryptomerias in the country, we concluded that we could not spend forty-eight hours with more pleasure to ourselves, and perhaps interest to our readers, than by a flying visit to the Monumental City. So we went, and we were certainly not disappointed.

The specimen is on the ground of Captain Pracht, on the York Road, about a mile from the city of Baltimore, and its height and general appearance has been before described in our paper. It has been planted but five years, and each succeeding year finds it growing faster than the preceding one. The soil is a rather damp, tenacious loam on a clay subsoil. The hardiness of this specimen may be judged of from the fact that a fine Deodar Cedar near it was killed to the snow-line in the severe winter of three years ago; which latter, by the way, like an individual who runs back a few steps in order to leap the farther over a ditch, is making up nobly for the check it then received.

There is one peculiarity about Captain Pracht's Cryptomeria worthy of note. It possesses none of the pendulous, sub-weeping character common to most of the species, but rather a stiff, compact, Norway Spruce-like habit, very remarkable. Also, like the Norway Spruce, it seems rather to *sit on* the ground, than to grow *into* it, so dense and bushy is it below. We note these points particularly, as they may characterize a hardier variety, better adapted to our climate than our usual form has proved to be. We hope in a future number to be able to provide our readers with an engraving of this fine specimen.

Enjoying the generous hospitality of Captain Pracht, we were afforded the opportunity of spending a hasty ramble through his grounds and other fine places in its vicinity. The garden and pleasure-grounds of Captain Pracht occupy only four acres, but are better kept, and probably afford more real enjoyment to the proprietor, than many a twenty-acre garden badly kept up. The Strawberry evidently found itself at home, and we were told, thrives admirably; but the unfortunate dwarf Pear exhibited little here towards maintaining a good character. Many of them still existed, and presented admirable specimens of skill and good treatment; but some of the best specimens annually disappear, and the present inspection showed that some half-dozen of the most handsome trees would go this season also. But the Captain does not feel like surrendering the stronghold of his faith in them. He has had the grounds all about them drained in the most thorough manner, and if there is any virtue in the "phosphates," or any of "the ingredients prescribed by the experts," these trees will certainly not lose the benefit of them.

One of the features that interested us very much, was the arrangement of the staging of the plant-houses. The conservatory is attached to the dwelling-house, and the interior is in full view from one of the windows of the dining-room. Instead of the long parallel rows of staging, and straight walks all around as usually seen, the walks and tabling all take sinuous courses. The effect is to make a small house appear to be of a much greater extent than it is.

At this time the glory of the Camellias had just departed, and the Azalea, in many a score of varying shades and shapes, were in the height of their brilliancy. "Many a score," let not the good reader take to be an exaggeration: Captain Pracht has two hundred and fifty *named* kinds, many of them of his own importation, and possessed by no other party in the Union. Besides these there are a great many unnamed seedlings, some of which do great credit to their owner's skill as a hybridizer. Of course we

could not neglect such an opportunity of noting for our readers the *twelve best* in such a collection. We give the order of priority to those of the twelve we thought the best: 1. Duke Adolphus of Nassau; 2. Princess Adelaide of Nassau; 3. Bernard Andreæ; 4. Dulcis major; 5. Criterion; 6. Eulalie van Geert; 7. Beauty of Europe; 8. Iveryana; 9 Arborea purpurea; 10. Duke of Wellington; 11. Fred. Breul; 12. Marie Louise. In the stove, Browallia Jamesonii, with bright yellow flowers, and the graceful Thyrsocanthus rutilans were in good bloom, besides many other plants of a more shy blooming habit, which, under the good management of Mr. Schœffer, the gardener, seemed more tractable than we had before supposed them capable of.

About four miles from Baltimore, near Govanstown, we found the nursery of our good friend Brackenridge; but, as ill luck would have it, not Mr. Brackenridge himself,—entirely our own fault, however, through calling at an unjustifiable hour. We took the liberty, however, of prying into every hole and corner of his grounds, and felt, after we had "got through," that if these nurseries did not, before many years, swim to the surface of fame, we should be much mistaken. Mr. Brackenridge seems to have great faith in thorough draining and deep trenching. A large amount of money and labor had been expended during the last winter. Mr. Brackenridge evidently has no faith in that horticultural creed whose followers believe that it is good policy only to grow those things likely "to be asked for." The numerous beds of seedlings of many rare and choice varieties of trees and shrubs, showed plainly that Mr. Brackenridge's doctrine is to have every thing desirable, and then be able to show his visitors "what they ought to ask for." To such educators of the public taste the horticultural community owe much.

About two miles from Baltimore is Clifton Park, the residence of Johns Hopkins, Esq.,—the outline certainly of one of the finest places in the United States. We say the *outline*, as we should suppose it would take double or treble the number of hands now employed to bring out all the nice points so grand a place is capable of affording.

The sheet of water is a magnificent affair, being, we believe, entirely artificial, and designed and kept up in a beautiful and natural manner.

Some of our best gardeners have, at various times, been engaged here: Leuchars, Frazer, Patterson, Saunders and others. The present gardener, Mr. Fowler, has been here for some time, and, considering the force at his command, had every thing under his control, in wonderful good order and high keeping.

One of the prettiest objects here was an *Araucaria imbricata:* the most perfect specimen we had before seen. It was about 6 feet high, very symmetrical, and well furnished with branches to the ground. The leaves were rather narrower than usual, and struck us, at first, as being a very luxuriant specimen of *A. Cunninghamii*. Every lover of rare and beautiful trees should beg the privilege of seeing this fine specimen.

In the long range of vineries we noticed a very simple contrivance for giving air. The houses are on the lean-to principle, and ventilators are fixed in the back wall, immediately beneath the apex and under the sliding sashes. These ventilators or registers slide vertically; but what we thought a novelty was, that all of them were attached together by a thin iron plate, with a rope and pulley at each end, by which the whole might be opened or shut together. See cut annexed.

Some modification of this simple idea might be applied *on the top* of vineries with fixed roofs, instead of many of the clumsy contrivances now in use.

In this house, among many other remarkably healthy vines, we saw a few of the Black Barbarossa, a variety much extolled in English periodicals. Some of them indicated that they would bear freely this season.

Leaving Clifton, we took a hasty run through Miss Tiffany's grounds, under the kind guidance of Mr. Kemp, the gardener. Some family afflictions, we believe, have led to the almost total neglect of these grounds, which is much to be regretted, as a more beautiful site, or a place in which so many germs of beauty exist, that could at a few months' notice be called into a rare existence, could seldom be found.

In front of the house is a clump of four trees,—oaks,—incomparable in beauty. These were not suffered to grow up in infancy with the clean, straight trunks so popular with modern planters, but had evidently been headed off when a few feet from the ground, and the variously divided and dividing branches gave to the clump the peculiar interest it possesses.

We had marked out many more friends and pleasant spots on whom to call, and in which to enjoy ourselves for a short period; but the hollow snort of the iron horse admonished us that our last hour had expired, and resigning ourselves to our fate, we went off in good humor, and well satisfied with what little we had at least the privilege to enjoy. Then the orchestral steam whistle struck up for the railroad jig, and the nether extremities of the cars tripped the "light fantastic toe" to the music thereof, and soon we had nothing further left to remind us of our kind friends and agreeable jaunts, but the few scattered peach blossoms from trees along the route, commemorative of the luxurious tastes or necessitous wants of former travellers, on the line—as the peach-buds in our own district had not yet responded to the beck of spring.

LIBOCEDRUS AND WELLINGTONIA.

WE did not intend to be controversial, or in any way to detract from the merits of Mr. Sargent's excellent edition of Downing, when in our notice of it, we pointed out one or two errors the editor had fallen into. As to what Mr. Sargent considers "finding fault," we can assure him it was not, by any means, our intention to do so. In the last *Horticulturist* Mr. Sargent says he adopted the name *Washingtonia* because it is *national*. And he asks, "How is it possible to describe a plant otherwise than by the name recognized as national by all the amateurs and nurserymen in the country?" We reply, but without admitting that *all* the amateurs and nurserymen call it Washingtonia, that it *is* possible to *botanically* describe a plant by its *right botanical* name, as given to it by botanical authorities, in preference to any *miscalled* "botanical" name that nurserymen or amateurs choose to give it. In fact, this is precisely what we object to. Botany ignores nationalities. Whether it was an Englishman, American, or aboriginal Indian who first discovered this plant, botany does not inquire; but it asks who *first described* it, and pointed out wherein the genus *differed* from all other genera, and then, by botanical rules, named it? Whoever he was, it matters not to the botanist whether he named it after Washington, Wellington, Benedict Arnold or General Jackson; he had the right to do so. It is the duty of the *Gardener's Monthly* to deal with botany as a science, regardless of nationalities—with names as they are described in botanical works, not what various localities wish them to be.

Wellingtonia was so named by Lindley, an admitted authority, who described it as distinct from *Sequoia*. If Lindley is wrong, it must be Sequoia, and a third name is out of the question.

We are sorry to find Mr. Sargent not convinced. The idea that "national" names may be adopted into our standard works in place of botanical ones, for no other reason than that the public at large so wills it, is striking a severe blow at systematic botany. That any botanist has ever founded a genus "Washingnia," or that it is ever likely to be found in any work on systematic botany, is not pretended. The name of *Washington tree* is not liable to any objection. A similar effort was once made to establish a genus as *Franklinia*, after it had been rightfully called *Gordonia*. But the botanical name still stands, though the tree is propularly known as the "Franklin tree." A multiplicity of names is a great evil to all concerned. In the name of science and system, let us stick to the rightful one, whatever it may be.

We also observed that Mr. Sargent, in saying *Libocedrus decurrens* of Torrey and *Thuja gigantea* of Nuttal were one and the same thing, had probably followed some author inaccurate on this point. In this we were correct,—Mr. Sargent giving Carriere and Gordon as his authority.

We have probably had better opportunities of studying these plants than either of these two gentlemen, and we cannot, perhaps, render our readers a better service than by annexing cuts of the two kinds; by which it will be readily seen that the two plants are very distinct. Fig. 1 is branch and seed of *Libocedrus decurrens*, from specimens in our own possession.

Fig. 1.

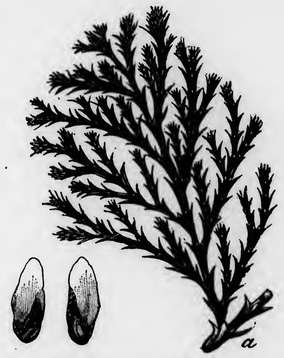
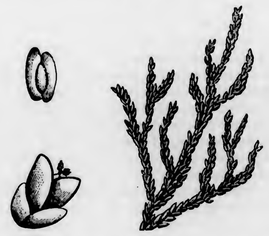


Fig. 2 is Nuttal's branch and seeds of *Thuja gigantea*, copied from his own plate, which we have identified as accurate by comparison with specimens direct from the Wilhamette River.

Fig. 2.



As we have taken the trouble to go into this matter minutely, in order that it may be clearly elucidated, we may as well add that Carriere is very evidently quite unacquainted with Mr. Nuttal's *Thuja gigantea*, which he considers but a synonym of *Libocedrus decurrens*. In describing the Thuja, speaking of the leaves, he says they are furnished with a gland. Now, Mr. Nuttal himself says, (p. 102 Smith's Ed.,) that his plant has *no* glands; "foliis * * etuberculatis." In fact, a careful comparison of what Carriere calls *Nuttal's* Thuja with Mr. Nuttal's own description, shows that Carriere is totally unacquainted with it.

The whole subject shows how careful we should be in receiving the opinions of European botanists on American plants, when it is at all possible for us to examine for ourselves. Unfortunately, hitherto we have neglected these studies, and so have had to de-

pend, in a great measure, on European works for the knowledge of our own plants.

We may add, that if Mr. Sargent will do us the justice to refer again to our article, he will see that he has mis-quoted the *Gardener's Monthly* as maintaining that *Thuja Menziesii* and *Thuja gigantea, Nutt.* are one and the same. It is Mr. Nuttal, whom we quoted, who gives the one as synonymous with the other. In that he might have been in error, we do not maintain either way, not having examined a specimen of T. Menziezii of undoubted authenticity. We alluded to it as part of the history. *Thuja gigantea, Nutt.* may or may not be the same as T. Menziesii, but it is unquestionably another thing from Libocedrus decurrens.

KEW GARDENS.

Alluding to his former letter, which we gave in our last, from an English correspondent, he further remarks:

"Some of your readers may be inquisitive to know if these gardens serve no other purpose than to amuse the pleasure-seeking public who flock here in such vast numbers the season round, and for which so large a sum of the public money is expended. Were this alone the only benefit derived, it would certainly be worth the outlay where the endeavors are so well appreciated; but, besides this, it is a Horticultural School for the instruction of young gardeners; where not only a knowledge of the names of plants and their management may be obtained, but a tolerable knowledge of the nature and products of every part of the globe where they have connection. Through the medium of the collectors and correspondents, a continual exchange is going forward (of plants, &c.), not only between foreign horticultural establishments, but those at home as well. Not less than 250 packages of plants, roots and seeds have been received from different parts of the world during the last twelve months. The above number does not include the dried contributions to the two Museums and Herbarium, where cart-loads of dried specimens are continually arriving."

OAKS.—DR. KOTSCHY.

We draw the attention of people whose purse equals their love for the science, to the following two works. We find them noticed in the February number of the *Bonplandia*, the official organ of the Imperial Academy of Natural Science in Vienna. One is the "Paradisus Vindobonensis," the other "The Oaks of Europe and the Orient." Both are got up in imperial style, the illustrations "self-printed" and printed in colors. Having a decided partiality for the Oak ourselves, and knowing that we share it with a great number of our readers, we add that the author, Dr. Kotschy, has travelled extensively; has made oaks his favorite study; has discovered new species, and that, in consequence, these appear in his work for the first time in print. The first and second part contains the description and engraving of the following: 1. Quercus Syriaca, Kotschy; 2. Q. Haas, K.; 3. Q. pyrami, K.; 4. Q. aurea, Wierzl; 5. Q. Libani —variety callicarpos, K.; 6. Q. alnifolia, Poeche; 7. Q. Vallonea, K.; 8. Q. rigida, Willd; 9. Q. brachypeylla, K.; 10. Q. tauricola, K.

Alexander von Humboldt, in a letter to Dr. Kotschy, dated December 27th, 1858, says:

"My dear fellow-traveller. I cannot find words that will sufficiently express my admiration of your splendid monography of the Oaks. The oak-leaves positively look as if they were pasted on the paper. What a fine compliment to your comprehensive travels! And please do not fail at the end of the work to tell us all about the geograpical and hypsometrical position of the oaks. And now that you have achieved already such multitudinous and valuable results; now you again prepare to start for a new expedition to the Western Taurus and Kurdistan! I wish I had that pleasure of once seeing you here."

"The Oaks" appear in 10 parts, at $3 each. No doubt any German bookseller will take orders for it.

CATSKINS.

We extract from the verbatim report of an eloquent address lately delivered by Henry Ward Beecher, on the subject of "Spring in the Country," the following *affecting* passage: "Brook willows are downy with their velvety *catskins!*" "*Phancy his pheelinks*" at reading the *feline* construction put upon his sentiments by those wretched sinners the printers!

New or Rare Plants.

Sanseviera cylindrica.—Nat. ord., *Asparagineæ*. A curious plant from the Mauritius, and Portuguese settlements in Africa; remarkable as affording the materials of which a variety of useful articles, as cordage, mats, etc., are made, and known as *Ife*. Blossoms in spikes a foot or more in length; prevailing color white, with a tinge of pink. *Bot. May.* 5,093.

Tachiadenus carinatus. Nat. ord., *Gentianeæ*. A native of Madagascar. It belongs to the Gentian family, and is certainly a very pretty thing. It is a low-growing, rather woody plant, bearing rich purple blossoms, about an inch and a half across, with a very long slender white tube, measuring frequently three inches. It blossomed in October last, for the first time in England. *Bot. Mag.* 5,094.

Campanumæa Javanica.—Nat. ord., *Campanulaceæ*. Of the Himalayas growing at an altitude of from five to seven thousand feet, in the high passes of Sikkim. It flowers during the rainyseason. It is more interesting to the botanist than to the floriculturist.—*Flore des Serr.* 1264.

No. 5 of Hendersons "Bouquet" contains a capital figure of the Bootan Rhododendron called R. Nuttallii, certainly one of the most glorious plants in cultivation, not yielding precedence to even R. Dalhousianum itself. With noble leaves of the largest size it bears masses of golden-eyed snow white flowers, represented in the drawing as 18 inches round the edge. Another plate is filled with huge flowers of four new Indian Azaleas, from the pencil of a Belgian artist; viz., Leopold I. and Duc de Brabant, rose-colored and much alike; Etoile de Gand, pink, with a few spots of carmine; and Reine des Panachees, white, streaked with crimson, apparently rather coarse and too much like other stripes now in cultivation.

Fuchsia simplicicaulis (*Slightly-branched Fuchsia*).—Sent from Peru to Messrs. Veitch, by their collector, Mr. W. Lobb. Bloomed in October, 1858. Flowers "rose scarlet" large, and beautiful.—*Botanical Magazine, t.* 5,096.

Agave Jacquiniana (*Jacquin's Agave*).—Called also *A. lurida;* and *A. Vera Cruz*, by Miller in his "Dictionary." Received from Honduras. Flowered in the Kew Palm House, in the autumn of 1858.—*Ibid. t.* 5,097.

Hibiscus radiatus *var.* flore purpureo (*Purple-flowered rayed Hibiscus*).—Common in the Calcutta Gardens, but raised from seeds received from Mr. Wilson, superintendent "of the *late* Botanic Garden, at Bath, in the island of Jamaica. I say *late*, an awful avalanche of stones having recently overwhelmed the Garden."—*Ibid., t.* 5,098.

Dasylirium Hartwegianum (*Hartweg's Dasylirium*).—Called also *Cordyline longifolia*. Native of Mexico, with a gigantic caudex of root.—*Ibid., t.* 5,099.

Phyllocactus anguliger (*Angle-stemmed Phyllocactus*). Native of western Mexico. Blooms in the winter. Flowers large, white, and very fragrant.—*Ibid., t.* 5,100.

Begonia rex (*Royal Begonia*).—"Certainly the most lovely of the many lovely species of Begonia." Native of Assam. "Flowered in the autumn; but, probably, with a little management, the blossoms may be produced, at most seasons." Flowers pink, but the leaves are its most striking feature. They are ten, or more, inches long, and six, or more, inches broad, deep green, with a metallic lustre, and towards the margin tinged with purple. The dark green surface is interrupted by a broad band of a dead silvery white, which is nearer the edge than the midrib, and passes round the leaf.—*Ibid. t.* 5,101.

Begonia xanthina *var.* pictifolia (*Variegated-leaved, yellow flowered Begonia*).—Received from Messrs. Jackson, Kingston Nursery. Probably a native of Assam.—*Botanical Magazine, t.* 5,102.

Epigynium leucobotrys (*White-fruited, Epigynium*).—Imported by Mr. Nuttall, from the Duppla Hills, of north-eastern Bengal, where his nephew found it growing on a species of Oak. A hardy, greenhouse, evergreen shrub, with white flowers, blooming in summer, and white wax-like berries in autumn.—*Ibid., t.* 5,103.

Sonerila margaritacea (*Pearl-spotted Sonerila*).—"A very lovely little stove plant," imported by Messrs. Veitch & Son, through Mr. T. Lobb, "from some part of India." Flowers in corymbs, pink; but the chief beauty arises from the leaves, which are dark glossy green, with pearl-like spots in rows between the veins.—*Ibid., t.* 5,104.

Plectocomia Assamica (*Assam Plectocomia*).—Known also as *Zalacca Assamica*. Native of eastern Bengal. It is a stove Palm.—*Ibid., t.* 5,105.

Hardenbergia Comptoniana. *Benth.*—Nat. ord., *Leguminosea*. Native of New Holland. A greenhouse climber of moderate growth. Racemes long, many flowered. Flowers in pairs. A very handsome greenhouse plant, with purple flowers, which may be cultivated with equal success in pots, or planted out in the greenhouse or conservatory border, and tied to the rafters. A compost of about two parts good fibry loam, and one of peat, or partially decomposed leaf soil, with sufficient sharp sand to render the whole porous. Blooms in the winter and early spring months. Propagates by cutting in early summer by the usual method adopted for greenhouse plants.—*Cottage Gardener.*

Acacia spectabilis. *A. Cunn.*—Nat. ord., *Leguminosea*. Native of New South Wales. Habit dwarf, moderately compact. Branches drooping. Racemes long, lax. Heads of flowers large, upon spreading pedicles; bright orange yellow. An elegant and not over-robust growing kind, very suitable for general cultivation. It flowers from January till March, and ripens seeds in sufficient quantity for propagation.—*Cottage Gardener.*

Monotoca elliptica. *R. Br.*—Nat. ord., *Epacridaceæ*. Native of New Holland. Habit shrubby, erect, freely branching. Inflorescence in short axilary racemes. Florets small, white, each based by an elliptical green bract. This handsome little greenhouse plant will afford no gratification to the taste of the florist who delights only in the flaunting display of *Tom Thumb*, cross-bred Calceolarias, and such-like pets of the flower-garden; but it is a little gem of a good kind, treating us in winter with its lively white blossoms; and ladies, I am sure, would never tire of it in bouquets. Peat two parts, loam one part, and plenty of sand, are the best compost for it; and it must have very perfect drainage, as it is very impatient of stagnant moisture at the roots. Propagates by cutting in early summer, just when the young growth is a little hardened.—*Cottage Gardener.*

Hibbertia Cunninghamii. *Ait.*—Nat. ord., *Dilleniaceæ*. Native of New Holland. Habit shrubby, twining, branching. Flowers axilary and solitary, on slender peduncles. Petals live obovate, undulated; bright yellow. A useful species of Hibbertia; for, though the flowers are fugaceous, there is a long succession and they are always profuse. A compost of loam, two parts fibrous peat, or partially decayed leaves, and plenty of sand, is the best. Cuttings root with some difficulty in a cool propagating-house. Blooms in June and July.—*Cottage Gardener.*

Verbascum multiflorum.—This is a showy herbaceous species imported from the Crimea, flowers golden yellow, free growth.

Meconopsis simplicifolia.—This is one of the most remarkable and handsome of the many gorgeous plants yet introduced from the Himalaya; the blossoms are of the most beautiful indigo blue, with conspicuous yellow anthers; the foliage is very pretty, being thickly covered with bright golden hairs.

Acacia onoidea.—A pretty free-flowering species from South Australia, much resembling *A. verticellata* in foliage, but this plant produces its yellow ovate heads of blossom in the greatest abundance, and on plants when only an inch or two high.

Camellia pearl.—A really charming variety; the blossoms are of snowy whiteness, exquisite form, petals of great substance, and beautifully imbricated.

New Begonias.—Queen Victoria, Argentea, Grandis, Isis, Nebulosa, Rollisonii, Uranica, and Virginia are the latest new kinds of a genus that promises soon to become as varied and as popular as the *Gloxinea* and *Achimenes*.

New Fuchsia.—*Lord Clyde* is highly spoken of in the English papers. The tube and sepals (which are of great substance) are of rich glossy scarlet, the latter most perfectly reflexed, exhibiting a large well-folded corolla of rosy pink, distinctly flaked with broad stripes of bright violet purple.

New Yellow Rose.—*Madame William* has also appeared before the public for the first time this season.

Amongst the new or not well known plants that we have recently bloomed in our own country are the following varieties of Syringa or Lilac:

Sanguinea rubra, of the Persian section. Large dense panicles, of a pale purple while in bud, becoming a deep rosy purple when open. Individual flowers larger than the Persian.

Sanguinea fl. pl.—Belonging to the common or *S. vulgaris* section. Flowers double, in short dense spikes, pink before opening, afterwards lavender.

Insignis—Short dense spikes; flowers pinkish purple before opening, lilac after, but a slight move from the more known kinds.

Rubra major—Pink in the bud; after opening, the flowers are pale pink, with a white spot on each of the broad segments of the corolla. One of the most distinct.

Libertii.—Small lilac flowers, of a bright lavender.

We shall be glad to notice in this column any new or rare flower or tree that any of our importers may bloom, if they will send us a flower for our satisfaction.

New and Rare Fruits.

New Grape.—The *Blue Favorite*, introduced into Georgia by Mr. McCall, of Laurens Co., Geo., the *American Cotton Planter*, at least a correspondent, speaks highly of it, but without any description by which it may be recognized. It appears to be a foreign grape. It says:

"I have not been able to trace the origin of the "Blue Favorite" grape. Tradition gives it an European origin. It has been cultivated in Georgia, successfully, since 1828. There are vines now growing in Clinton, Geo., in the garden of Captain Jonathan Parish, which were planted twenty-five years ago and are still healthy and prolific bearers."

Baker Apple.—A friend sends us a glowing account of the merits of this fruit. The *Maine Farmer* also describes it as follows:

"The tree is very vigorous, spreading; an abundant bearer; fruit large, oblate, sometimes gobular, approaching to conic; skin yellowish, mostly shaded with red, striped with crimson; stalk short and stout, inserted in a regular cavity of medium depth; calyx small and closed, set in a shallow basin; flesh yellowish, often tinged with crimson near the skin; very tender; middling juicy, with a subacid, pleasant flavor. The season is September to February, and often keeps till April.

"The Baker Apple is supposed to have had its origin more than a century ago in this town, on the farm of Dr. Baker, long since deceased.—About the same time it was grown on the farm of a Mr. Scott, two miles distant, and is still cultivated by the decendants as one of their choicest apples, and in their neighborhood is known as the Scott apple. As a cooking apple, from its half-grown state until the time of its decay, it probably has no superior. As a market apple, its appearance and quality commend it to the good sense of the apple merchant, who always finds for it a ready market at the highest price."

New Strawberry.—Mr. Nelson, good authority by the way, says in Dr. McCloud's *Cotton Planter:*

A new and very promising variety has recently been raised in Kentucky, by Mr. Downer, a most skillful and reliable horticulturist. He exhibited it last summer before a Committee of gentlemen of high standing in that section, (several of them being also strawberry growers,) who, after a comparison with other celebrated kinds, have pronounced this variety of superior excellency in every respect, and a "triumph."

Scarce Apples.—*Jabez's Sweet and Lane's Sweet.*—These two apples are highly recommended by Mr. W. H. Yale, of Meriden, as adapted to that neighborhood, and extensively raised in and near Middletown, for cider and for baking, keeping well. The latter is described by Downing, and said to have originated in Hingham, Mass.; the other is probably a local apple, though very likely worthy, like the Progress, another Meriden apple (see vol. 1, p. 468) of more extensive culture.—*Homestead.*

New Apple.—*The Beauty.*—Its origin is unknown further than it was among grafts brought some fifty years ago from Hartford. It is described nowhere, so far as we can ascertain. Fruit large, roundish, a little flattened and narrowed towards the eye, and somewhat angular or ribbed. Stalk three quarters to an inch long, set in an irregular basin of nearly the same depth. Calyx closed in a shallow, plaited basin. Skin fair, smooth, yellow, striped, blotched, and dotted with bright red. Stalk cavity green. Flesh tender, *exceedingly juicy*, with very little flavor, what flavor there is is agreeable. The apple is a very showy one and a first rate market fruit. The trees prolific beyond account, and as fruitful one year as another. It keeps till June.—*Homestead.*

Crab Apples.—The two following English varieties are not known with us:

Royal Charlotte.—Medium sized, ovate. Skin of a delicate waxen yellow, tinged with red all over, but covered with a dark red cheek next the sun. Eye with long, pointed segments, and moderately sunk. Stalk slender, an inch long. Flesh white, very tender, with a fine, agreeable acidity. September and October.

Transparent.—Below medium size, oblate. Skin yellowish white, and waxen-like. Eye with very long and spreading segments, sunk. Stalk long and slender. Flesh translucent, opaline, with a brisk and agreeable acidity. October.

The Mountain Seedling Gooseberry.—This is a variety, brought into notice within a few years past, by Philemon Stewart, of the United Society at New Lebanon, N. Y. The bush is a rampant grower, a monstrous bearer, perfectly hardy, and the large fruit never mildews. In quality the fruit is surpassed by some of the best English varieties.

Beurre Auguste.—*Benoist Pear*, according to the Reveu Horticole, is a chance seedling discovered growing in a hedge in France. It was introduced to England in 1848, and is thus described:

The fruit is of the first size, and even in outline; skin pale yellowish green, overspread with numerous grey specks, and flakes of cinnamon russet near the stalk and apex; and tinged with rich brownish red on the side exposed to the sun; altogether a very handsome fruit; stalk three-fourths of an inch long, stout, and inserted without much depression; eye small, and slightly sunk in a narrow cavity.

Questions and Answers.

Fungus in Propagating Beds. H. B., Clendale.—A slight sprinkling of salt on your tan, would rid you of the disagreeable fungus of which you write. You do not say, but we presume, the cuttings are in pots and plunged; in which case, the salt will not harm them.

Disease in Apple Trees. R. S. R., Keysburg, Ky.—What is it that causes thrifty looking young apple trees to die just at or below the surface of the ground? The bark decays and comes off the wood, exhibiting no marks of violence or injury from worms, the top of the tree still being green, sometimes dying full of fruit, but many before they come into bearing. The roots appear in good condition. The disease or injury is in the collar.

[By the disease always appearing at the collar, we should be inclined to think the borer had something to do with it. It may, however, be a species of canker, the exact cause of which, notwithstanding the progress of horticultural knowledge, has never been philosophically explained.]

Disease in Celery. Frankford, May 10th, 1859.—We are a company of working-men, who have formed ourselves into a Society for the growth and exhibition of garden vegetables. We have had two exhibitions the last year: an Onion Show in August, and a Celery Show in November. At our Celery Show we had twenty-four exhibitors contending for the prizes. And all seemed to be highly pleased with the show for a start. We are preparing for an Onion Show in August again, and are giving premiums for all garden vegetables.

We wish at this time to bring ourselves under your notice. Though we are all working-men, we feel an interest in the affair, and ardently hope that if we should want some little information on any subject, you will grant us the desired boon.

There is one thing we would now wish to ask your opinion about, namely: Last year we were all troubled with our Celery specking, and were at a loss to know the cause. But the general opinion was that it originated from the dew that fell on the plant during the night, not getting dried up before the heat of the sun came on, thus, perhaps, scalding the plant.

Now, we would wish you to give your opinion if you please, in your June number.

Thomas Hargreaves,
Sec'y Workingman's Hort. Soc. of Frankford.

[We are very much pleased to hear of the existence and successful working of this Society, and should be delighted to learn that many other similar ones were established throughout the country. Any thing we can do by way of information or encouragement will much gratify us.

The disease in the Celery is most probably caused by the larvæ or grub of the Celery-fly. If the specked portion is opened, a small maggot will be found between the tissues. The best remedy is to catch the fly, which makes its appearance generally in August. Saucers or bottles of water, sweetened with honey or molasses, and set about through the beds, are the best traps. Great numbers may be destroyed in this way.]

Picea Nordmanniana.—Can Mr. Meehan give me the name of the enclosed Picea? It is as hardy as an Oak, soft like velvet, and of a most pleasing yellow-green, which does not change under any temperature. D. L.

[Picea Nordmanniana, one of the rarest and hardiest. No one who values a truly beautiful Pine, should be without it if he can possess one. It can be now had in many of our chief nurseries.]

Thuja gigantea. K.—The specimen you have sent us, as received from Le Roy marked "Thuja

gigantea," is, as you will see in another column, Libocedrus decurrens. It corroborates what we there say, that the error has probably originated in France.

SEXES OF FRUIT TREES.—X., Baltimore, asks, "Are fruit blossoms composed of male and female separately, or both characters in one flower?" Almost all are of the last description, some kinds of Strawberries being the principal exceptions. Walnuts, Hazelnuts, and a few others have the flowers separate, but on the same tree.

MEXICAN CASHAW MELON.—Volney Leonard, much obliged for the seeds.

ASPECT OF SPAN-ROOFED HOUSES, AND WIDTH OF LAPS.—1. What is the best width of *laps* for the panes of glass for roofs of plant-houses? For vertical sashes, obviously the less lap the better. I find that most of the lenses which scorch the leaves of plants are formed by water, lodged between the broad laps of the glass.

2. What is the best direction or range for a double span-roofed plant-house,—north and south, or east and west? C. P. G.

Washington, D. C., May 5th, 1859.

[THE less lap the better. If the house is "close-glazed,"—that is, if the upper pane is laid down close on that below it,—a quarter of an inch is ample, and less might suffice. When open glazing is adopted, or spaces left beneath each pane, as very frequently is done, a wider lap will be required, or the rain beats in in windy weather. We advocate close glazing and small laps. Some argue in favor of a slight opening, by observing that close-glazed laps retain condensed moisture, which, by the expansion caused by freezing, often breaks the glass; but a close-glazed house retains so much more heat, and the laps, in such cases, may be so small as to retain very little moisture. We find little breakage from this course,—far less, in fact, than is caused by ice between *shutters*, which open-glazed sashes usually require.

2. North and south in most cases. Where Camellias, or Azaleas, or heaths, or any thing that does not like the full sun, are to be grown in the same house with Begonias or any plants that do like sun, an east and west range does as well.]

STRAWBERRIES, &c.—I will like to see published what are the best varieties and hardiest of the small fruits for market purposes,—Raspberries, Strawberries, &c.,—and best method of cultivation.

Respectfully, JOHN T. BLOIS.

[THE best kind of Raspberry and Strawberry for market purposes depends very much indeed on locality, and can only be known by actual experiment first in a small way. In this part of the world, Hovey's seedling still holds its own as a good Strawberry, though Wilson's Albany is fast treading on its heels. Brinckle's Orange is getting an extensive range of culture with amateurs of Raspberries; but for market purposes, the color is against it. The bulk of market people are those who "think they know, and don't want to be told." You must grow Red Raspberries for them, or they will give their dimes to your neighbor. The common Red and Hudson River Antwerp, are the most extensively grown here.]

WILL you be kind enough to answer a question or two through the *Monthly?*

1. In the January number I see a new evergreen ("Tritoma uvaria") mentioned by your correspondent in England. Can it be procured here? and at what price?

2. Where can I get the Hop tree?

3. I would be glad to know something of the "Hornbeam." I want something to shade a short carriage-drive. Would it be suitable for this purpose?

By answering these queries, you will greatly oblige

A LADY SUBSCRIBER.

Camp Hill, Harper's Ferry, Jefferson Co., Va.

[1 and 2. THE principal Boston and Philadelphia nurserymen have them, and probably New York and Baltimore.

3. The Hornbeam seldom grows over fifteen feet high. It is not adapted to shade a carriage-way. As an ornamental plant, it is very desirable. The European has the prettiest habit of growth; the American the prettiest leaves in the fall.]

DWARF CHRYSANTHEMUMS. F.—These may be had very dwarf and bushy, and at the same time in small pots, by layering the flowering shoots about this time into three-inch pots, first tongueing the shoots. In about six weeks they will be rooted, and may then be cut off, and repotted in fours, fives or sixes. Some of the large-flowering kinds make pretty objects so treated. A singular fact in connection with this mode is, that these layered plants flower earlier the next season than plants raised from offsets in the usual way. This hint may remove the difficulty you experience in Western New York, of their not flowering before your first frost arrives.

SEEDS BY MAIL. E. T. C., Los Lucceros, New Mexico.—Beech-nuts, Horse Chestnuts, Spanish Chestnuts, and such other seeds, might be sent by mail from the Eastern States to your place; but as they are very large seed, and require to be kept damp till planted, and so must be packed with moss in a tin box, but very few nuts could be got within the 16 ounces Uncle Sam allows.

ASPARAGUS BEDS. M., Harper's Ferry.—The Asparagus plant is one which requires a great deal of moisture to bring it to perfection, while it must be in a situation where cold or stagnant water will not remain about the roots to rot them. The soil must, therefore, be prepared with this object in view. In the first place, the soil should be loosened at least two feet deep; the moisture is retained in the loose earth, and thus forms a reservoir, on which the roots can draw in a dry time. A rich dressing of manure of any decomposing vegetable material is also beneficial, as not only tending to keep the soil moist and porous, but as affording fertilizing material at the same time. Manure four inches deep may be worked in, when the soil is stirred to the depth of two feet. If the soil is dry, an eighth of an inch of salt dug in in, will also impart additional moisture.

In planting, set the roots eighteen inches apart in the rows, and the rows eighteen inches from each other. Cover the roots only two inches deep. Some cover four, but every inch of covering is a week lost in its season of coming into use. The nearer the surface, the warmer the soil, and the sooner the buds start. For the same reason, Asparagus is always earlier when grown in raised beds,—say six inches above the surface,—than when in the level ground. Also, for the same reason, a dark sandy soil is a better covering to the roots than a light-colored loam.

RED SPIDER ON EVERGREENS. The same.—We are not much troubled with such a pest here, and scarcely know how to advise you. Probably lime-water, in which sulphur had been mixed, and suffered to stand a few days to clear, and then heated just so hot that the fingers could not be borne in the liquid, and at once syringed over the tree, would be the most efficacious remedy.

ROSES. F. Waage.—We can scarcely recognize the Rose you describe as having seen about old settlements near Germantown. Probably it is the Eglantine, a kind nearly allied to the Sweet Brier, and of which we have also seen some very old specimens in the same localities.

PINUS SYLVESTRIS SPIRALIS, or Spiral-leaved Scotch Pine, is a new variety, obtained from seed by M. A. Seneclauze, a nurseryman at Bourg-Argental, France. It appears, from a cut in *La Revue Horticole*, to be a very distinct variety, almost resembling a Spruce.

Catalogues, &c.

H. A. Terry & Co., Crescent City, Iowa. Flower Seeds. Not an imposing list of innumerable varieties, but a select assortment of 100 good kinds.

T. B. Denison, Buffalo, N. Y. Sorgho Sugar, with experiments in its manufacture, and description of various apparatus, &c. A very useful pamphlet on a subject that has now become one of general interest.

Paschall Morris, Philadelphia. *Rural Advertiser*, monthly, No. 9. Friend Paschall is ever "down on humbugs." In this useful advertising sheet he maintains his reputation, and gives freely a large amount of really valuable information.

H. D. Emery & Co., Chicago. Garden Seeds. Like many others in this month's notices, reached us too late last month, which we much regret, as few Seed Lists that have as yet reached us, strike us more favorably than this.

White & Prentice, Toledo, Ohio. Fruit and Ornamental Trees and Bedding Plants. The "Great Western Nurseries" are well known, and the Catalogue does not seem to do them more than justice.

Edward Bonsall, Jr., Salem, Ohio. Trees, Plants, Roses, &c. Sheet Catalogue.

Uri Manly, Marshall, Ill. Trade List for Fall of 1859. Mr. Manly deals largely, not only in fruit, but ornamental trees also.

S. S. Jackson & Son, Cincinnati, Ohio. Abridged Price List. Oh! the grapes! Scarcely a catalogue but bears us new names at least. Here we have Mottier's Seedling, Mammoth Catawba, and Minor's Seedling. We tremble for our pockets, if another edition of Downing's Fruits ever appears. Nothing but a $10 volume will hold all the grapes. Messrs. Jackson's list is a very neat and excellent affair.

Barnes & Washburne, Harrison Square, Mass. Hardy Greenhouse and Hedge Plants. Among the herbaceous plants we notice an excellent collection of 50 kinds of Phloxes, which alone must render a visit to their nursery in July and August very attractive. A new variety of Rhubarb—"Prince Imperial"—is also described. The Dahlia list is particularly fine.

An Introduction to the Culture and Preparation of Soil for Fruit Trees; by David Miller, Jr., Carlisle, Pa. What may be called the literature of catalogues, makes annually a marked improvement. Here we have a large pamphlet of 14 closely-printed pages, for the use of Mr. Miller's customers, in which the principal points in the cultivation of all kinds of trees are noted and made plain to the commonest capacity. Such enterprises should be liberally encouraged.

Sweet Potatoes: its Culture in the North; by O. S. Murray, Twenty Mile Stand, Ohio. A useful treatise on the subject of which it treats.

Annual Report of the Farmers' High School, Centre Co., Pa. Under the management of Mr. W. G. Waring, the horticultural and agricultural department of this establishment has achieved a prominent distinction. Every Pennsylvanian in any way interested in the soil, should feel proud of this Institution; and the excellent and successful manner in which it has so far been managed is highly gratifying.

The Microscopist's Companion; by Dr. John King, Cincinnati. We have before spoken of the pleasure a perusal of the advanced sheets of this work afforded us. We can now only say of the work itself, that it is quite equal to our anticipations. The microscope before long, will be as great a necessity to the complete idea of a home as a piano, and Dr. King's work as essential as the music-teacher.

Obituary.

BARON VON HUMBOLDT.—Just as we are going to press, the telegraph brings us the bare announcement of the death of this distinguished man. Since the time of Linnæus, science has suffered no greater loss. That "knowledge is power," has never been more perfectly exemplified than in him. Though in politics a man of decided liberal views,—sympathizing with every movement opposed to what he thought a curtailment of the liberties of the human race,—the most despotic rulers of the earth have united in doing him honor.

Domestic Intelligence.

PRATT'S PATENT MILK-PAN.

WE refer our readers to the advertisement of Pratt's Patent Self-ventilating Covered Milk-pan, which appears to us to be a very desirable acquisition to any well-conducted dairy. A specimen can be seen at the office of this paper.

THE STATE OF OHIO has purchased for her school libraries 1000 copies of "Downing's Landscape Gardening," and 500 of "Darlington's Agricultural Botany."

THE CURCULIO.—A correspondent of the *Country Gentleman*, to preserve his plums, used the whale-oil soap, putting it on with a hand syringe, and covering thoroughly the whole of the tree. This was done as often as three or four times a week, and oftener in case of rain. About one pound of the soap was used to eight gallons of water.

FINE TREES IN COLUMBIA, S. C.—S. B. Buckley writes in the *Country Gentleman:*

I have seen no place in the Southern States made so beautiful by trees, shrubs and flowers as this city; and there are few gardens in the United States finer than that of the Hampdens, in this place. The climate gives a great advantage for ornamental gardening; for here many of the best evergreens flourish, which cannot endure the cold of the north, among which are the Magnolia grandiflora, Cerasus Caroliniana and Ilex cassine; the two last of which are susceptible of being trained into screens with arched doorways, pyrimids, cylinders, and all manner of shapes. In the Hampton garden is a specimen of the redwood (Sequoia sempervirens) of California about eight feet high. In the garden of the late Henry Lyon is the finest Magnolia grandiflora I ever saw in cultivation; it is nearly two feet in diameter, and about forty feet high. In the same garden is a large English walnut (Juglans regia) which bears abundantly, and an Olive tree which produces good crops of olives. Some years ago Mr. Downing received a few small peach trees from China, and gave one to Mr. Lyon, which proved to be the only one that survived. It is said to be a delicious, juicy peach, and as it has been multiplied by grafting and budding in the nurseries, it will soon become common. Mr. Crawford showed me a fine apricot tree in his garden, which bears annually several bushels of fruit, if the frost does not prevent. The curculio does no harm here; perhaps the climate is too warm for him. Mr. C. also has a Cork oak (Quercus suber) about two feet high, two years from the acorn. There is a much larger specimen of the same tree in Columbia, which I did not see. It is an evergreen, with foliage resembling the Holy (Ilex opaca.) Among the trees which I noticed in cultivation in the streets of this city, are the Hackberry (Celtis crassifolia,) Elms (Ulmus Americana and alata,) Oaks (Quercus phellos and aquatica,) Mock Orange (Cerasus caroliniana) and the Clina tree (Melia.) I was surprised to find the two oaks just named deciduous here, having lately seen them as evergreens at Wilmington N. C. What a beautiful place Columbia would be if the Magnolia grandiflora had been planted along its streets 30 years ago, instead of some of the trees which now stand there. The yellow pine (Pinus mitis) is the most abundant tree in the environs of the town, but the Loblolly Pine (Pinus tæda) and the Longleafed pine (Pinus palustris,) also abound, and I saw one tree of Pinus serotina, which rarely extends so far inland. Yesterday I visited Millwood, the residence of the late Col. Wade Hampton. It is about four miles from the town, in the midst of oaks, a great variety of trees and shrubbery. There I met, and almost embraced an old northern friend which looked more beautiful than ever, the white pine (Pinus alba.) The Wistaria sinensis had attached itself to several of the large oaks, and large clusters of its flowers were pendant from the branches of the trees.

GAS *vs.* TREES.—A committee appointed in New Haven, to examine the subject of the injury done to shade trees by leakages from gas pipes, report that forty trees have been killed in that city, from this cause, during the last three or four years, twenty-one of them last Summer, owing to a flash of lightning which followed the pipes under ground and caused leaks.

BORERS IN MAPLES.—In certain parts of Maine the locust tree borer (*cytus pictus*) has destroyed nearly all the locust trees. In another part of maine the apple-tree borer (*saperda candida*) has destroyed whole orchards, which a very little painstaking would have saved, had the farmer only known the habits of the insects. A borer very similar to the last mentioned, has done much damage to the sugar maples in Maine.—*Maine Farmer.*

SALT FOR PLUM TREES.—J. M. Ives says, in the *New England Farmer:*—In February of 1845, I applied to one acre 5 hogsheads, and for the two following seasons my trees produced greatly, particularly the green Gage; I had at that time upwards of twenty-five varieties of the plum. Previous to this my fruit was badly stung by the curculio. I could not, however, perceive that the salt had any effect upon the black wart, which has since destroyed nearly all the plum trees in this section; my fruit was most satisfactorily preserved for two years from the curculio. A friend from a neighboring city on a visit to my place while the salt lay upon the surface, on his return home applied brine to a few trees, which killed them outright; salt as well as guano must be used in a proper manner; crude salt or brine must not come in close proximity to the roots; it should be applied to the surface of the ground early in the spring, to the extent or spread of the branches, and remain upon the surface some two or three weeks before spading in. The plum is naturally a marine tree, and it is surprising how much salt it will assimilate and thrive upon.

SALT FOR QUINCE TREES.—A correspondent of the *California Culturist* says:—I have about sixty trees, which are now 5 years old, and for the past 3 years have blossomed full, and when the fruit became as large as a hazelnut would all fall off. In the autumn of 1857, I applied salt at the roots of one-half of them, and the result was that I had a good crop of fine fruit from the trees which were salted, whilst those without salt produced *not one*, although they all blossomed and set fruit alike, and were of the same variety and on similar soil—a deep sandy loam.

REMEDY AGAINST THE CURCULIO.—The *Germantown Telegraph* says:—"A plan tried last season in this vicinity, which proved quite effectual, is to dip bunches of rags in gas-tar, and hang them upon the trees, to be renewed, though seldom required more than once, when the odor has disappeared."

PRUNING NATIVE GRAPE VINES.—John M. Ives, in the *Boston Journal*, says:—"The summer pruning of the Isabella recommended by Downing in his book of fruits, and which we, in common with him, practised for many years (which was to cut off every shoot two or three joints beyond the outer branch of grapes,) we now believe to be wrong."

SHELTER ON THE PRAIRIES.—Hon. M. L. Dunlap, in a speech at Bloomington last winter, after forcibly convincing his hearers of the great value of shelter to orchards and gardens, says further:

"What trees shall we plant? The cottonwood is the most rapid of growth and the easiest of propogation, and when orchards have been set some years will prove valuable for this purpose. As it grows readily from cuttings, all that is required is clean culture and the cutting put out in April or May. The soft maple and white ash of our groves and timber bottoms are valuable; they grow readily from seeds, are easily transplanted, and make valuable timber and firewood. The silver leaf maple and European larch are both rapid growers and invaluable for this purpose. Among evergreens the American arborvitæ is probably the best, from its rapid and dense growth and cheapness of plants. These I would intersperse among the deciduous trees to give them a more cheerful winter look, but my main dependence would be on the ash, maple, and larch. The Norway spruce, with its perfect symmetry of form and graceful foliage waving and bending to the touch of the rude blast, presenting a protection as impentrable as the most closely boarded palasade, is of the greatest value, not only to the eye that appreciates the beautiful, but holds no second place either on the lawn or in the planted screen. The family of pines, when in masses, cannot fail to please the eye, but for screens and orchard protection is second to the arbortivæ or Norway spruce.

THE DROUTH IN THE TROPICS.—The dry season in the tropics the present year, has been one of unusual severity. Never before have the rivers been known to be so low, and the effect upon the crops, coming, as it does, after unusually heavy rains in the wet season, has been in many places disastrous. In the Island of Porto Rico the coffee and tobacco crops will be very light, while in the Southern States and the neighboring republic of Mexico, the same complaints are made. It remains now to be seen what effect this irregularity of the seasons will have upon the health of these countries.

WELLINGTONIA.—S. B. Buckley, one of our best botanists, and in honor of whom the Buckleya is named, says, in the *Country Gentleman*:—"The Mammoth trees, are Sequoia giganteas, not Washingtonias as many erroneously suppose.

FRUIT IN WASHINGTON TERRITORY.—Until within a few days past we were not aware of the existence of a bearing orchard of any magnitude in this Territory. During the past week, however, Messrs. J. R. Meeker & Sons had a large parcel of Apples consgined to them from the orchard of Mr. Huntington, on the Cowlitz, which, we are informed, is the largest and oldest in the Territory. Their weight will very nearly average half a pound each.—*Puget S. Herald.*

THE AMERICAN HORNBEAM, known in the Middle States as Water Beech, Mr. Flagg says, goes by the name of *Blue Beech* in Massachusetts.

THE CURCULIO AGAIN.—As the season will soon arrive when every thing necessary to save the Plum crop must be tried. We give a plan by which Mr. Consadine, of Cincinnati, has been successful:—His treatment is to dissolve a half-peck of slacked lime and two pounds of flower of sulphur in a bucket of water, which is to remain for 48 hours before use. He applies this liquor with a common garden-syringe, commencing when the plum is developed to about the size of a pea. He makes the application in the afternoon, or toward evening—as the insect commits his depredations mostly in the night—by syringing the tree with the mixture.

Foreign Intelligence.

GRAFTED CONIFERS.

BY W. PAUL, CHESHUNT NURSERIES, HERTS.

I HAVE long been satisfied that the popular prejudice existing against Conifers has no substantial foundation, *provided proper scions and stocks are used.* The best guarantee against disappointment and loss rests in the intelligence, experience, and honesty of the cultivator.

It is well known that the heavy-wooded Pines—as *Pinus ponderosa* and *P. macrocarpa*—will grow very well if grafted on the Scotch Pine; but, so treated, they soon over-swell the stock, become top-heavy, and pass into a stunted and deformed state. If, however, these kinds are grafted on the Austrian Pine, *and the scions are rooted from the lower end*, perfect and durable trees are the result. And this is but an example where many cases of a like nature might be adduced.

But there is also an objection against grafted plants existing *in point of time*, rather than in fact. If *side-shoots* of Pinus and Abies are used as scions, however suitable the stocks, a portion only will form leaders, and these at long intervals of time. Such, therefore, should not be purchased until they have attained the condition of perfectly-formed trees, with good leaders; or the purchaser may have to wait for the *denouement* somewhat longer than is agreeable.

Once more. Using a tender stock, as the common Cypress, or China Arbor Vitæ, for the genera Cupressus and Thuja, is objectionable; because such plants are liable to be killed at the root in case of severe frost. With these exceptions, I cannot see why a grafted Conifer should not be as good as a grafted Apple or a grafted Pear; and if the objections rest only on prejudice, it is most desirable that they should be removed.

Let me now adduce one or two facts in support of these opinions. *Pinus Lambertiana*, grafted on *P. excelsa*, is fifteen feet high, and everything one could wish for. *Pinus macrocarpa*, grafted on the Austrian Pine' is sixteen feet high. An incident in the history of this latter tree may not be uninteresting to your readers, as showing the advantages arising from the application of such horticultural knowledge as we may possess.

The first year after being turned into the ground, the plant made but little progress, which led me to suspect that all was not right at the root; accordingly, in the month of October, the soil was carefully removed; when lo! the scion was found overlapping the stock on one side. The fact was unsatisfactory, but the remedy was apparent. The point of a knife was inserted two inches above the line of junction, and passed through the bark, drawing it downwards the length of four inches. The projecting portion of the scion, which extended and formed callus nearly the half of its circumference, was then pared down with the knife, and the soil firmly replaced. Two years afterwards, the soil was again removed, and the other half of the scion, although firmly and satisfactorily united, was served in the same way; an abundance of roots was emitted from these incisions; the plant soon commenced growing vigorously, and is now as handsome a specimen for its size, as any in the kingdom.

Take another instance. A small plant of *Picea nobilis* was purchased of the late Mr. Cunningham, of Edinburgh; it was a mere side-shoot grafted on the Balsam, or Silver Fir. For five or six years it retained the lateral growth; a leader then sprung into existence, favored by pruning and liberal feeding; and the tree is now ten feet high, as symmetrical as if it had been cast in a mould.

While speaking of the *Picea nobilis*, I may, perhaps, be allowed to express the opinion that grafted plants may be preferable to seedlings, unless the latter have been raised from foreign seed. It is said that much of the seed perfected in England is the result of artificial fertilization with the Silver Fir. Now, if this is so, is it not probable that the seedlings will partake, in some degree, of the nature of each parent? And if the habit of vegetating before the spring frosts are gone—natural to the Silver Fir, but from which the *Picea nobilis* is happily exempt—be transmitted to these seedlings, they will clearly be of little value; for, while of matchless beauty, the greatest value of the *Picea nobilis* attaches to the fact that it does not grow until late in spring, thereby escaping the damaging effects of the late frosts.—*The Scottish Gardener.*

VIOLETS IN WINTER, WITH CULTURAL REMARKS.—We have no flower that possesses greater eligibilities for furnishing a winter bouquet than the Neapolitan Violet. No kind is more esteemed by the ladies. They stand in the foremost rank amongst winter flowers. The first thing I would urge on the young cultivator is, not to think of producing a profusion of foliage,—this is a gross error. Get them early, and plant them on moderate soil, in preference to their being late and hurried. They should be planted in a perfectly open situation, without shade, on raised beds, not dug above four to six inches in depth, and the beds dressed with good sound loam and leaf soil. This will be found to produce stout and compact buds, with a moderate amount of foliage; and such will blossom much finer than huge overgrown, and bushy plants. They need no other particular treatment through the summer, except keeping clean; but about the middle or end of July they will have produced many runners. These runners must, in the main, be pruned away; but it sometimes happens, that certain short and compact runners are produced, very near the stem, having buds much like the parent plant. Such as look likely for blossom may be reserved, the rest should be pruned closely away. This dressing must be repeated again about a month, or less, before the plants are put in their winter quarters; they must then be trimmed thoroughly. Now we come to the forcing of them, if forcing it may be called. I force them in a brick pit; but it matters not what the structure, so that the conditions are proper. These are: First, a perfect security against frost. One degree of frost is by no means agreeable to them, although they may bear it. They require good soil now, enriched with old manure, and containing some sand and charred material, if at hand. A small bottom heat, of about 65°, would be serviceable, if it could be thus secured; but they will do very well without any. The great affair through the winter is, to place yourself in such a position as to be able to give air, or ventilate, on every favorable opportunity. Now, plants managed as I have recommended will produce a nice bloom by the beginning of November, and not only blossom, but blossom-buds by thousands will be advancing through the pit. Such being the case, there needs no forcing, strictly speaking,—what they want is the best of covering. It was before observed, that they must not be frozen; yet, as it is indispensable that they be kept very near the glass, it will be seen that such is a position very liable to be affected by very low temperatures. This leads me to speak of the importance of attending most carefully to roof covering. This, indeed, is one of the things that must be kept well fixed in the mind. If they get blistered by the frost, through nearness to the glass, they will be sure to suffer in proportion. In our cold pits we cover, perhaps two feet in thickness, with dry litter,—this pressed tolerably close with mats,—and, indeed, sometimes even more.

Every opportunity should be sought to give them air. They can scarcely have too much, if they are not frozen; for both their delicious aroma and their very color are heightened by such course of practice.

We now come to watering and shading. They require no water, with me, from the end of October until the early part of February. Watering in the dead of winter would be a serious procedure; indeed, they do not require it. I water them well when planted, which is generally about the end of September, and this suffices until February. Towards this period, or as soon as the winter has fairly broken up, we give them a through watering with liquid manure; and henceforth they will need water occasionally.

Shading is the next affair; for as soon as March arrives, the intense sunlight turns their fine blue or lavender into a "washed-out"-looking sort of tint. Screens of some kind should, therefore, be put on as occasions demand, at the same time giving air freely.

By the above practice we command Violets constantly, from the end of October until May. There are few flowers so sweet and so acceptable, that can be had in such long succession.

October 25th.—Pit in full bloom. Fine bunches gathered days since.—*Cottage Gardener.*

GRAFTING CAMELLIAS.—The *Cottage Gardener* says:—The manner of grafting Camellias is the simplest thing on the face of the earth. You put in the knife, and cut down a slice, one inch long, on the face of a plain piece of the stock; then cut across the bottom of the slice, which leaves a notch there—on that notch fix the bottom of the graft. After splicing it off, in the same way as the stock, tie it with a piece of mat or worsted; putting it five times round, and no more, for it does not want much covering when the place is hot and moist accordingly.

TO RENOVATE SICKLY ORANGE TREES.—Writing of a visit, an English gardener says:—Some large Orange trees, which had got into ill health through having been watered with bad water, are placed under the shade of the Vines in a bed of leaves. The first step taken with a view to improve them was to prune in their heads, then to shake away all soil from their roots, which were washed perfectly clean, and lastly to remove everything that appeared to be decaying! The trees were then retubbed in fresh soil, placed under the conditions just named, and now they are pushing vigorously, and will evidently soon make good heads.

FORCING STRAWBERRIES.—Mr. Drummond, an English gardener, brings them forward in pots in the ordinary way till they are in full flower, after which he plants them out as follows:—A bed of dung and leaves is made up in the Strawberry-house, and when it has attained a moderate degree of warmth the plants are carefully turned out of their pots and set in rows on the bed. Mould previously warmed is then placed round the balls till they are nicely covered, and the surface being neatly smoothed, the whole is finished. Tiles to keep the fruit clean are then placed round the plants, and thus circumstanced they bear enormous crops of fine fruit. After the latter is all gathered the plants are turned out into beds in the open ground, where they fruit well the following season.

MOONLIGHT ON VEGETATION.—Prof. Zantederchi finds plants grow more in moonlight then dark nights.

CLIANTHUS DAMPIERII.—Beautiful as the *Clianthus puniceus* is, it is nothing to *Dampierii.* Those who have never seen it, may form some idea of it by imagining a large black moth's-head, like a patch, placed in the centre of the blossom of *puniceus*: altogether it has no rivals in its pretensions to beauty, except some of the most lovely of the Orchids.—*Cottage Gardener.*

ROOT PRUNING.—This is best performed in autumn, when the roots are comparatively inactive. The object in view is to check over-luxuriance by depriving the trees of superfluous food; and to encourage the production of blossom buds instead of leaf buds. The amount of roots to be cut away must be in proportion to the vigor of the trees; in my opinion more than a fourth part should never be removed, and that should consist of the extremities only, carefully preserving the surface roots, which should be encouraged by every possible means. My attention was recently directed to a wall of peach trees, which had been root-pruned early in spring; a trench had been dug perpendicularly to the flag flooring at a distance of 4 feet from the wall, completely divesting the trees of all roots beyond that distance; the result evidently is the destruction of the trees, and young ones have been planted to replace them. This was accomplished in a first-class garden, which shows that care is as necessary in root pruning as in the preparation of borders.—*George Westland, Kingston Hall, Notts.*

ORCHARD HOUSE.—Describing a successful grower's house, *The Gardener's Chronicle says*:—Among glass houses is an orchard house filled with beautiful little fruit trees in pots now in full blossom, with the exception of the Apricot Peach, on which fruit is already fairly set. All are in 12-inch pots, not placed on beds of rich soil into which the roots are allowed to pass, but set on wooden stages or shelves and liberally fed with liquid manure. Thus managed they bear abundantly, each Peach and Nectarine having on it from 60 to 70 fruit, and one had as many as 80 on one tree. The fruit too, tasted in comparison with that from walls, proved the better flavoured of the two. Plums bear most abundantly, as do also Pears. The French plan of inserting fruit buds on barren spurs or naked branches has been largely practised here, both in and out of doors, but with what result has yet to be proved, the work being only just completed.

DIGGING ABOUT FRUIT TREES.—Rivers says:—The ground over the roots of garden trees as generally cultivated is dug once or twice a year, so that every surface-fibre is destroyed and the larger roots driven downwards; they, consequently, imbibe crude watery sap, which leads to much apparent luxuriance in the trees. This in the end is fatal to their well-doing.

CYCLAMENS.—Mr. BEATON says, in the *Cottage Gardener:*

"We cannot lift them, or divide them successfully, or propagate them profitably, but by raising them from seeds; nor will they seed always, and under all circumstances; but most of them—the spring ones more particularly—can be made to seed, if the plants are in good health, by attending to the flowers, when they are in their prime, and by dusting them with own pollen. Tickle the anthers with a pin, and the dust, or pollen, will fly about, and some of it will reach the stigma, or female part. There is only one stigma to each flower; and, like the Polyanthuses, with or without 'pin-eye,' they are easily crossed or impregnated, when the stigma of a Cyclamen is exerted, or comes out beyond the anthers, which corresponds with the 'pin eye' of the Polyanthus. That flower is dusted more easily by keeping the flower in its natural position, but when the stigma is shorter than the stamens, the flower must be turned upside down, while the anthers are made to give off the pollen, else the chance of touching the stigma may be lost."

FLEMISH CHERRY.—Pomologists have fallen into great mistakes with regard to this cherry, particularly those who make it synonymous with Gros Gobet; others think it the same as the Kentish. The latter is nearer the truth; but the Kentish and Flemish are decidedly different. The fruit of the two could not be distinguished the one from the other; but the trees of the Flemish are less drooping than those of the Kentish, and the fruit is smaller, and about eight or ten days later. Any one who examines the two varieties as they are grown in the Kentish orchards will see at once that the varieties are different.—*Cottage Gardener.*

A FINE NEW HARDY FUMARIA, called *Corydalis speciosa*, is mentioned as having been introduced to the St. Petersburgh garden from the River Amour by a traveller named *Maximovicz.* It is reported by M. Regel to be as handsome as *Corydalis nobilis*, and since it seeds freely, it will soon be common. The stem is described as being 1½ feet high, red. The flowers are golden yellow in bunches at the end of the stem and branches.

INSECTS AROUND THE ROOTS OF PLANTS.—A correspondent of the *Monthly* recently inquired about these. The following may help him:

M. Letellier, a medical man at Taverny, near St. Leu, states that he finds an excellent wash for destroying insects to be made by boiling in 1¼ pint of water 62 grains each of red American potash, flowers of sulphur, and soap. If it requires to be stronger the quantity of sulphur and potash may be doubled, but the soap must remain the same. Immersion for a second only kills even ants, the largest caterpillars, and the cockchafer grubs. The solution does no harm to plants. When grubs have to be killed a hole is made in the ground with a dibble, and a funnel placed in the hole, through which the solution is to be poured.—*Gar. Chronicle.*

VERMIFUGE. It appears that another composite plant has been brought into the field in aid of Pyrethrum roseum and carneum as furnishing Flea powder. M. Willemot has laid Pyrethrum elongatum before the Paris Horticultural Society, with the remark that its energy resides in the flower-head chiefly. Our common Feverfew might probably afford similar properties.

PLANT FOR AGUE. *Apocynum cannabinum.* Dr. Trent has reported six cases of ague in which he administered the root of this plant; and states that in two of them quinia had been administered without relief. His patients all recovered, and he concludes that this root is entitled to a higher position among anti-miasmatic medicines than has hitherto been allotted to it. He administered the powdered root every two hours in doses of five grains in pill form generally preceding the apocynum by a cathartic. From forty to sixty grains of the powdered root commonly proving sufficient to arrest the disease.—*College Journal of Medicine.*

AMERICAN PEARS IN ENGLAND.—Mr. Rivers, writing to Mr. Hovey, says, that the Seckel, Moyamensing and Tyson are the only ones that have proved really good. The Seckel they "make a standard of flavor."

THE CHAMPION HAMBURG GRAPE is getting a high reputation in England, as one of the best varieties of Hamburg.

WE see the following in the *Cottage Gardener*:

"Hodson's Indelible Garden Label, made of a fabric not before used for this purpose, and printed with an expressly prepared ink.

"'We have received specimens of these Labels, and information which induces us to recommend them to our readers. We have before us one which for three years has been begrimed by exposure to London smoke in the open air, and yet the inscription is perfectly legible.'—*Cottage Gardener*, December 28th."

PRESERVING EGGS FOR COOKING (*G. S.*).—The longest time of eggs being preserved for this purpose, was effected by dipping them into melted fat, and storing them in a cold cellar when the coating of fat on each was hard. If we tried lime, we should bury the eggs in slacked lime. A layer of eggs and of the powder alternately. Using a cask, and placing it in a cold dry place.—*Cottage Gardener.*

THE NEW ZELINDA DAHLIA (*Coccinella*) is about the size and height of a Tom Thumb Geranium.

VILMORIN'S NEW SUPPLEMENT contains the following new plants from the Pacific coast: Acer tomentosum, A. Cinnala, A. Mono, Corylus heterophylla, Fraxinus mandschurica, Maximoviczia amurensis, Maakia amurensis, Phellodendron amurense, Syringa pinnatifida, Tilia, mandschurica, Vitis amurensis, Lilium pulchellum, L. spectabile.

FREMONTIA CALIFORNICA; *Torrey in Smithsonian Contributions to Knowledge, Vol. V. t.* 2.—Of this most remarkable plant a solitary individual was raised in 1851 in the garden of the Agricultural Society from a seed received from Mr. Robert Wrench. In April 1854 it produced flowers for the first time, as large as those of Trollius asiaticus, brilliant yellow inside, apricot colored outside, with the addition of some cinnamon colored down; and their substance was so thick that each flower remained in perfection for weeks. It has proved to be a beautiful hardy shrub, with a habit wholly unlike that of every hardy plant in cultivation, most resembling indeed some of the Hibiscuses of Western Australia. The plant has hitherto resisted all attempts at propagation, and still remains at Chiswick unique in Europe. This most interesting shrub was first described by Dr. Torrey in the work above quoted, from dried specimens gathered by the Rev. A. Fitch at the sources of the Sacramento, in the northern part of the Sierra Nevada of California. Also on hill-sides, Mariposa county, especially near the gold works of the Merced Company; flowering in May. This genus is a near ally of the celebrated Cheirostemon of Humboldt, the Hand Tree of Mexico. The latter differs, however, in the form and texture of the calyx, the lobes of which are deciduous; in the much longer stamineal column and secund mucronate free portion of the filiments; in the straight parallel anther-cells, and in some other characters of less importance. Whenever it shall have been found possible to propagate this plant we shall have added an uncommonly fine thing to our list of small neat hardy shrubs.—*G. Chronicle.*

NEW ROSES.—*Reine Blanche* is a new pure white Moss Rose, faultless in shape, and of a vigorous habit. It resembles *Madame Hardy*, both in form and colour.

Cimabue is of another race, belonging to the hybrid Bourbon. The flowers are large and full, of a velvety crimson, with a brighter shade in their centres. The colour is particularly rich, and the growth vigorous.

The group known as hybrid perpetual furnishes us, as usual, with the longest array of names. *Duke of Cambridge* is a large, close, crimson Rose, of good shape: it approaches nearer to *Baronne Hallez* than to any other, but is of a darker hue. The constitution of the plant is unmistakeably good, and the foliage handsome. *Eveque de Nimes* is, perhaps, the greatest novelty of the season, and unquestionably a gem. The flowers are of the richest crimson, of average size, containing an abundance of petals, which lie closely, the one over the other, in the way of *Paul Dupuy*, and many of the Gallica Roses. The foliage is particularly stout and handsome.

STRIKING CAMELLIAS.—In describing the Vauxhall Nurseries, Beaton says:—To get the stocks, apply the practice of this nursery, and you have nearly twelve thousand cuttings of single Camellias put in 32-sized pots in September. You stand, or, rather, you may plunge, the pots for the first three months in a cold frame; they stand theirs in cold pits, and at the end of three months they take them to a close, hot, propagating-house; all beginning to make roots beautifully. In this hot place they begin growing early—and the growth is finished and ripened by the end of June; then every one is put into a single pot, No. 60's. And they are kept close, and from

the sun, for a month; and by the time it is just twelve months from the inserting of the cutting, the young stock is fit to graft on. The first few thousands of grafted plants for this season, in this establishment, are now out to shift for themselves; and the second batch was in the close cases ere February was out. Here they are as close as they can stand, on soft sand, heated from below. As soon as the grafts have taken, out with them in the body of the house, which is hot enough for anything, and in with the next lot; and so on, as long and as often as you can get ripe wood and stocks.

Foreign Correspondence.

From our Regular Correspondent.

[THE following letter from our regular correspondent, we regard as one of the most interesting of the series, and will be read with general interest.—ED.]

LONDON, May 2, 1859.

"BEDDING plants at 2s. per dozen." This announcement will, no doubt, puzzle some of your readers. That such is the case the spring advertisements in the gardening periodicals fully testify. I will endeavor to show how they are grown so cheaply, and that the growers are not selling an inferior article, or in the spirit of running down his neighbor. The following are the trade prices in Covent Garden Market, (which stand the same all through the metropolis,) with a list of such things as are most in request. The variety is very limited, only such things being grown as grow and sell freely. Two classes of plants are grown; one for bedding purposes, the other for flowering in pots. The first consists of Verbenas, Lobelias, Phloxes and Cupheas, which are sold at 2s. per dozen; Scarlet Geraniums, Calceolarias, Petunias, Heliotropes and Salvias, at £1 per hundred; variegated Geraniums and Fuchsias, at 4s. per dozen. The principal plants grown for decorating purposes are Mignionette; Heliotropes of the following varieties, Miss Nightingale, Voltaireanum and Peruvianum. Roses: the var. are pink and crimson Common China, Devoniensis, Fairy and Lafraudts; Herbaceous Calceolarias, seedlings (in general from their own stock); Fuchsias: Snow Ball, Tom Thumb, Clio, Aucubæfolia (fine variegated leaf, very showy). Show Fancy and French Spotted Geraniums, amongst which are the following: Docteur Andre, a French spotted variety, large truss and beautifully fringed petals; Alma, early, free-flowering sort, with crimson flowers; Robert Bruce, Virgin Queen and Virginium. Verbenas; the sorts as Purple King, Defiance, Mrs. Holford (white), Giant des Battailles (crimson), Imperatrice Elizabeth (striped rosy pink and white, very pretty, Rosy Gem (deep rose), and Standard Bearer (deep purple, with large white eye). Petunias, 3 varieties: Shrubland Rose, Shrubland White, and a large purple called Splendens. Double and single Chinese Primroses: Cytisus satleana, Poinsettia pulcherrima, Anne Boleyn, and the Pinks; amongst rarer things, Bouvardia longiflora alba, Impatiens Jerdonœa, Gardenia radicans. Double and Tree Violets: Acacia armata (this plant has nearly given way before the Cytissus, which is found to be much quicker in growth, equally free in flowering, and delightfully fragrant, with the same colored flower). Hydrangeas, Pink and Blue; the latter color is obtained by watering with a solution of alum. Cinerarias, same as Calceolarias, all from seed, being of less trouble and greater variety. The market price of the above varies from 6 to 8 shillings per doz. Some few growers produce Heaths, Epacris and Clianthus puniceus. These command a higher price. Amongst Ericas mostly grown are such sorts as Cavendishii, hyemalis, Hybrida intermedia, Bowcana and Willimoreana. The above are amongst the objects of common market produce; but in Covent Garden Market is to be found, at various seasons, nearly every plant in cultivation, both rare, curious and gay, and every thing imaginable connected with Natural History, Botany and rare curiosity, from birds' nests, snakes, Daisy seeds, weeds and mosses, to the gayest adornments of Flora's beauties.

I will now endeavor to show how the market growers manage to supply plants at so cheap a rate, and at the same time become rich men, which they certainly do. I have no recollection of ever seeing one of their names amongst the list of insolvent debtors or Sportsman's Calendars. On the whole, they are remarkably active and industrious. Without these traits in their characters they will never gain a footing, in the first instance, as the competition is very great.

They confine themselves to a few leading articles, which they grow upon a very large scale, as, for example, two establishments, that of Mr. Woodroffe, of Kensall Green, and Messrs. Smiths, of Dulwich; the former has about *six acres* of ground *covered* with glass, all purposely constructed and heated for growing soft-wooded plants, as Verbenas, Geraniums, &c.; the latter a similar extent, but grows a great variety of hard and soft-wooded plants. One or more houses is constructed and devoted to one class of plants, and they receive the peculiar treatment they require. These people are fast monopolizing the growing of soft-wooded and bedding plants, and supply the principal London nurserymen, who find it cheaper to buy than grow them, and does not interfere with the arrangements of a general nursery stock. They likewise commission them to grow stocks of new bedding or soft-wooded plants. It was Mr. Woodroffe who grew the stock of his seedling (Mrs. Woodroffe) Verbena for Messrs. Henderson, of the Wellington Nursery. So well did he fulfil his undertaking, that in the first season, from one small plant, he propagated over seven thousand.

On the two following regulations mainly depends their success: *Immediate sale and ready cash.* They keep no clerks or book accounts.

The moment when the plants are in the best condition for market, a van purposely constructed, is loaded to the top; by four o'clock in the morning the plants are conveyed to the markets; by half-past five or six they are all sold, the money received, and men and horses on their way home, loaded with spent hops, tan or manure, and prepared to execute a fair day's work afterwards, and the same thing is continued day after day, without loss or risk.

I have frequently heard gentlemen's gardeners express surprise how the florists grew their plants so well, that after much care and expense, they themselves have always fallen far short of the florist's standard.

I will now give a few details on the system they start with two or three leading articles, and place Mignionette first on the list,—a plant always in demand. This is grown in pits about 2 feet 6 inches deep, which are filled with spent hops from the brewer's. 48's (4-inch) flower-pots are filled with rich turfy loam, and plunged to their rims within six inches of the glass, and as close together as they will stand. The seeds are sown thinly and evenly over the pots, and covered lightly with finely-sifted soil, and well watered. The lights are kept close for a few days, When the seeds have well germinated, gradually admit air until the plants are about half an inch high; thin out to four plants at equal distances; stir the surface-soil frequently, and give copious waterings with manure waters, not too strong. Admit air freely at all times. When the plants are about six inches high, and required for market, pull the pots out and break off all the roots that have protruded through the bottom; this will give them a necessary check. Stake with four small stakes and tie a thread round them. Stir the hops and renew with a little fresh. Again plunge the pots to the rim; give a good watering, and keep close for a day or two. They will, in the course of ten days or a fortnight, flower and be ready for market. They are sold for 4d. per dozen. As much as fifty or a hundred lights are sown at one time; 3 feet 6 inches wide and 6 feet long is the size of each light. For spring supply, sow in August and September; for summer, sow in March and April. A variety called the Giant is preferred as being of stronger growth. The same variety is used much of late for growing as standards upon a stem 12 to 18 inches high, and have a very pleasing appearance.

The next I shall treat of is Gardenia rudicans, or Cape Jasmine, a great favorite in the market for its lovely white and sweet-scented flowers. The nurseryman's price for this plant is from 2s. to 3s. each. The Florists Market price is 9s. per dozen for nice bushy plants, well set with flower buds. The chief points in their management is quick growth close to the glass, and a moist heat from 60 to 70 degrees. Cuttings of young wood are taken off in the autumn and early spring, stuck in shallow pans plunged in a brisk bottom-heat of 70° to 75°, where they root as free as Verbenas. As soon as rooted, pot off singly in 48 size pots in compost of half peat and half loam, with a little well-decayed manure; plunge to the rims in tan or spent hops, within a few inches of the glass; keep them close, and never allow the temperature to fall below 60°. To make the plant bushy, pinch out the ends of the shoots when about an inch long, not often, as the flowers are produced on the extremity of each shoot. If the atmosphere is kept at the proper heat with fermenting material, there need be no fear of red spider or thrip—pests, under ordinary treatment, always troublesome on this plant. Tan or spent hops are employed largely, both for plunging pots in-doors while growing, and out of doors at rest; this insures an equal warmth and moisture at all times, and prevents any sudden check in their growth. No old stock is kept on hand; any inferior plants, not sold, are thrown away, and their places occupied with new stock.

The fashions equally affect flowers as well as other things. Sometimes a certain plant becomes very unpopular, and the demand ceases; something else having taken its place, as with the Acacia armata mentioned above. This plant shows another difficulty to be encountered. Mr. Woodroffe informs me that this was at one time one of his most popular plants, and one which he grew very largely and well; but through some unexplained cause, he was at last unable to grow at all for sale. The same thing occurred with Impatiens Jordonœa, a lovely thing, and promised well at first. On visiting Mr. Woodroffe's establishment one season, I was quite delighted with the sight of many hundreds of this plant in a perfect blaze of beauty and as healthy as could be desired, quite covered with its pretty crimson and orange-tipped flowers. I was induced to purchase a couple dozen plants at 8s. per dozen; but with me they did not thrive at all well. On visiting this gentleman in the flowering season, I mentioned the circumstances of my failure, and inquired after his success, when he told me that, like myself, he had grown them until he could not grow them at all, and so had given them up in despair. Verbenas and Heliotropes are grown in 48 and 32 size pots, three plants in each pot, in light constructed houses, when they are plunged and staked as with Mignionette, the atmosphere kept moist, warm and close. Houses with low double span-roofs, supported upon pillars, are preferred, as the large space inside allows a free circulation of warm air, without admitting much external cold air, and for admitting abundance of uninterrupted light, which prevents the plants becoming leggy and drawn, and gives them a green and healthy appearance.

In an early article I intend giving a few particulars of the Market Gardeners, and the supply of vegetables and fruit for Convent Garden.

[ALTHOUGH our columns are somewhat crowded this month, we make room for the following extracts from the letter of one of our foreign correspondents, which will interest our readers.—ED.]

CHESTER, May 1st, 1859.

THE announcements of Horticultural Meetings for next season appear to be remarkably numerous.

Gishurst compound for the destruction of plant-pests so far appears to answer well.

The Horticultural Society of London have sold their offices in London. The gardens could have been better spared; they have always been examples of bad gardening.

Prunus divaricata. Nat. ord. Amygdalaceæ. A hardy shrub; native of Caucasus; flowers white, very numerous. This is a very fine hardy shrub; although it has been in this country more than fifty years, it is very scarce. A fine plant has just flowered at Kew; a magnificent thing; flowers are succeeded by yellow, oval-shaped plums.

The desire for novelties is still sufficient to stimulate our principal nurserymen to great enterprises. The two brothers Lobbs are collecting for the Messrs. Veitch's, one in California, the other I have not been able yet to learn, but I believe in the Brazils. Many interesting things have arrived from Dr. Livingstone, now travelling in the interior of Africa, on ground not previously explored. Great things are expected from C. Wilberforce, sent out from Kew with the expedition to Japan. His collections are on the road home, and shall be duly noticed on arrival. Mr. Fortune (now out for the United States) has sent many fine things home from China, as the Double Almonds, Wiegelias, Forsythia, Tree Pœony, &c.

The following are the principal collectors, recently or at the present time employed abroad, with some particulars of each success. C. Barter accompanies the Niger Expedition, under command of Dr. Bakie. Mr. Barter is a very praiseworthy and industrious young man, who buckled on his armor of resolution at the outstart, determined to do what laid in his power for the cause of botanical science, and, so far, has carried out his resolution well. Although misfortune has overtaken him several times, and the loss of his collections has been the result, he has still managed to send home many fine things, one of which has recently flowered at Kew, and is named Stephanophysum Bakici, after the commander of the expedition. As it is fully described in the "Botanical Magazine," I can add but little here more than it is very free-flowering, so much so that it is difficult to obtain wood for propagating. His descriptions of the country are very interesting, and contain much information. Through the kindness of Sir W. Hooker, they have been published in the daily papers. An excellent paper of his was lately read before the Linnæan Society of London, when they were pleased to elect him an associate of that honorable body.

W. Milne, who has just returned from a surveying expedition, where he has been for several years, the greater part of the time in the South Seas. He has added many interesting moist stove plants to our collections, as Pitcher Plants, Ferns, Palms, Banksias, Hakeas, and Cycadacœus plants.

C. Wilford accompanies the Treaty Expedition to Japan. He has also visited the Island of Formosa. As he is travelling over ground not previously explored, great things are expected from him. Nothing of importance has yet been received from him, but I understand his collections are on the way home.

Duncan, in the Mauritius, has sent many fine Palms, Musas, Dracænos, &c.

Willson, in Jamaica, has been very successful amongst rare Ferns and plants possessed of much commercial interest, as yielding fibre, medicines and other similar valuable properties.

Hill, of Moreton Bay, has been fortunate in meeting with several good plants, as the Nymphœa gigantea and Lobelia trigonocaulis (both previously described by me).

Dr. F. Mueller, of Melbourne. Many scarce New Holland plants.

Dr. Thompson, of the Botanic Gardens, Calcutta. Many fine Indian plants from his tour through Himalaya Mountains, in company with Dr. J. Hooker, the most remarkable of which are the Rhododendrons. These gentlemen are now, and have been some time past, busy publishing their work on the Flora of India, which, when complete, will be a rich and stupenduous work, and worthy of their joint labors.

Thwaites, Botanic Garden of Peradenia, Ceylon, has contributed Didymocarpus tomentosus, the Begonia named after himself, a new Cypripedium, and many like plants.

Hoove, in Trinidad, who lately succeeded the late and much regretted Mr. Purdie to the Botanic Garden. Amongst his collection are rare Ferns, Dammaras, &c., &c.

Captain Gardener sent some capital things from Natal, such as Streptocarpus polyanthe, Aristolochia Thwaitesii, very curious.

M. Christie, the Consul at Parana, has added many good orchids and succulents to our collections.

Two rare plants are now in flower at Kew. One the Musa ensete; the seeds of this plant were received about four years ago, and now the stem is more than 5 feet in circumference and 15 feet high, with about 12 leaves, each nearly or quite 20 feet long. The flower-buds are very large, with bracts more developed than in any other species. It remains to be proved whether it will produce fruit or not, of which I will report in due time. The other plant is Agave Jaquineana.

Horticultural Societies.

MASSACHUSETTS HORTICULTURAL SOCIETY.

MAY 7th.

Adjourned Meeting.
President Breck in the Chair.

George W. Pratt read an article in the *Horticulturist*, relative to the Boston Pear.

Samuel Walker, G. W. Pratt, M. P. Wilder, J. S. Cabot and B. V. French were appointed to investigate and report at a future meeting.

On motion of W. A. Harris, it was voted that a Committee be appointed to take into consideration the expediency of estfblishing a monthly Journal of the Society, in lieu of the present yearly, on the plan of that of Harvard College, to be edited by persons members of the Society, which publication shall be considered as the organ of the Society, to be furnished to members free of charge, and to the public at such price as shall be deemed advisable.

Samuel Walker, G. W. Pratt, M. P. Wilder, J. S. Cabot and B. V. French were appointed.

Adjourned to first Saturday in June.

At a meeting of the Flower Committee, E. S. Rand, Jr., in the Chair, it was voted to open the Society's Hall for Public Exhibition on Friday, May 20th, at 12 o'clock, and to close on Saturday at 2 o'clock, and that an admission fee of 10 cents be charged.

There have been many fine specimens growing for this exhibition, and considerable interest is manifested in this the spring opening.

EXHIBITION OF FLOWERS.

Benjamin Bruce, Brookline, a fine collection of Hardy Plants. A gratuity of $1.

A. Bowditch & Son, collection of Hyacinths and Greenhouse Roses. Gratuity of $2.

John A. Kendrick, Magnolia purpurea and macrophylla. $2.

W. H. Spooner, collection of Hyacinths. $2.

VEGETABLES.

John B. Moore, Concord; Asparagus; fine.
George Everett, Concord; Asparagus; also fine.
C. S. Holbrook, Randolph; some fine Cucumbers and 6 boxes of Strawberries; forced.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The last exhibition at the Monthly Meeting was another decided success. The great variety of well-grown fruits, vegetables and flowers was highly gratifying to every well-wisher of this old and useful Society. Below will be found the Secretary's Report.

The Cucumbers exhibited by John Brooks, gardener to C. F. Abbot, were over two feet long; variety called "Barnum."

The Rhubarb of Mr. Jones—Linnæus variety, we believe—were over 4 feet in length and 5 inches in circumference.

The Cauliflowers, Tomatoes, Potatoes, etc., by other exhibitors, also attracted much attention.

The chief attraction was in the display of flowers. So many new and rare plants formed a great treat to lovers of beautiful novelties.

Sonerilla margaritacea, by Charles E. Sutherland, gardener to B. A. Fahnestock, with its beautifully spotted leaves, though naturally a small growing plant, was very attractive. Flowers bright pink.

Jschromia Warcewiczii, by Christian Mack, gardener to B. P. Hutchinson, was very much admired This is a Solanaceous plant, with leaves like a Brugmansia, and long purple flowers of the size and form of the Tobacco.

From Mr. Mackenzie, Rhododendron Yarlowianum, a small flowering, but very showy kind. Also Azalea Rhododendroides and *Marinda Sanguinea*.

Amongst the Gloxineas by M. Hegarty, gardener to Joseph Harrison, Jr., were some very striking forms,—one especially, of the cylindical flowered section, called *alba auriculata*, was partienlarly beautiful. The spreading part of the corolla was pure white, and the throat a very rich crimson.

The orchidee were very numerous. One by Mr. Robert Buist—*Dendrobium Boothii*—was remarkable for its showy beauty. The spike was over a foot long, with numerous large flowers, which were white, with orange spots, and again tipped with bright purple.

Among the older plants were magnificent specimens of *Rhynospermum jasminoides*, *Pleroma elegans* and *Begonia Sundersii*, not with hundreds, but thousands of flowers on each, well worth going a hundred miles to see.

The Pelargoniums were very superior. The fancy varieties were there in great strength: one called *Vesper* was of a beautiful clear white, with a line of crimson down the centre of each petal. Another, called *Mazeppa superba*, was extremely rich.

Among the various collections of Fuchsias by different exhibitors, a small reflexed variety, called *Honey Bell*, attracted attention by the profusion of its blossoms; the *Duchess of Lancaster*, by its very showy flowers of a salmon color.

Mr. Mackenzie's collection of Azaleas were very much admired, particularly one called *Duke of Wellington*, a flower of magnificent proportions.

The collections of fruit were not numerous; but the Hothouse Grapes by John Cook, gardener to the Rev. J. M. Richards, were very much admired.

[Our reporter's notes are not so full as they were intended to be. The numerous friends of the *Monthly*, desirous of congratulating him on the success of the paper, and to talk over its future prospects, rendered it nearly impossible to do any thing else but enjoy himself with his friends.

The only thing wanting to keep up the enthusiasm beginning to be revived in behalf of the Pennsylvania Horticultural Society, is to keep on encouraging competition with liberality. A premium of some $25 or $30 for something that everybody can grow, and can easily be transported—*open freely to all the States*—Roses, if you like, or Fruits or Vegetables—would give an air of brilliancy to the exhibitions that our sensation-loving citizens would pay liberally to see.]

MAY 17th.

The Stated Meeting of the Society was held on Tuesday evening, May 17th, M. W. Baldwin, the President, in the chair.

There was a very good display of plants and vegetables.

Some books and plates were presented to the Society by Dr. Swaim, of Paris, and were appropriately acknowledged.

Articles were exhibited by R. G. Swift, James Jones, gardener to Girard College; Charles E. Sutherland, gardener to B. A. Fahnestock; James Eadie, gardener to Dr. Rush; George W. Earle; John Randall, gardener to J. B. Whetham; James Thomas, gardener to A. J. Bucknor; John Brooks, gardener to C. F. Abbott; M. Hegarty, gardener to Joseph Harrison, Jr.; Christian Mack, gardener to B. P. Hutchinson; Mark Hill, gardener to M. W. Baldwin; Peter Mackenzie; John Pollock, gardener to James Dundas; Robert Buist; John Cook, gardener to Rev. J. M. Richards; Anthony Felton, gardener to Henry Duhring, and James Daniels.

The Committee on Plants and Flowers made the following awards:

For Collection of Ten Plants:—Best to John Pollock, gardener to James Dundas.

Collection of Six Plants:—Best to James Eadie, gardener to Dr. Rush; Second best to John Pollock, gardener.

Specimen Plants:—First class; Best to John Pollock. Second class: Best to same; Second best to James Eadie.

New Plants:—A premium of $1 to Charles E. Sutherland, gardener to B. A. Fahnestock, for Sonerilla Margaritacea. A premium of $3 to Robert Buist for Dendrobium Boothii. Premium of $1 to Christian Mack, gardener to B. P. Hutchinson, for Jochroma Warcewiczii.

For Calceolarias:—Best to John Randall, gardener to J. D. Whetham; Second best to James Thomas, gardener to A. J. Bucknor.

Tulips:—Best to George W. Earle.

The Committee also awarded the following Special Premiums:
One of $2 to Peter Mackenzie for a collection of Azaleas and other plants.
One of $1 to James Thomas, gardener to A. J. Bucknor, for a collection of Seedling Pelargoniums, to which the Committee call attention.
One of $2 to John Pollock for a collection of Pelargoniums.
One of $1 to the same for a collection of Orchids.
One of $1 to Matthew Hegarty, gardener to Joseph Harrison, Jr., for Gloxinias.

Attention was called to a magnificent specimen of Calceolaria, large and in full bloom.

The Committee on Fruits awarded the first premium for Grapes to John Cook, gardener to the Rev. J M. Richards; and, on motion, the Society awarded to the same a special premium for the best of another variety.

The Committee on Vegetables awarded the first premium for Cucumbers to John Brooks. For Rhubarb: First to R. G. Swift; second to James Jones. Asparagus: Best to James Jones; second to John Cook. Potatoes: best to Anthony Felton, gardener to Henry Duhring. Mushrooms: best to John Cook; also a special premium of $1 for Cauliflowers, and Prince Albert Potatoes, a new variety, to Anthony Felton.

Several new members were elected, and several proposed

Corrections.

In our last report of the Pennsylvania Horticultural Society, article Cucumbers "Best to the same," is intended to mean "to John Brooks."

We were mistaken in saying that the dish of forced Currants overlooked by the Committee, were from Mr. Cook. They were from Mr. C. F. Abbott's establishment.

From the same place at the same time were some fine forced Strawberries, entirely unnoticed. Some remark, one way or another, should be given to objects exhibited. It was, no doubt, an oversight on the part of the Committee; but such haste is not creditable.

TORONTO HORTICULTURAL SOCIETY.

ANNUAL REPORT of the MANAGING COMMITTEE for 1858.

The annual summing up of Horticultural Societies we think more interesting than the Monthly Reports. This report notices that "within a very short space of time, the number of greenhouses and vineries has increased to a great extent about the city." Some apathy exists, but the Committee have great faith in the future. "The assets of the Society, through the liberality of a few members, and the zeal and ability of the Treasurer, Mr. J. C. Small, now excel the liabilities. They recommend liberal premiums and an energetic canvass as likely to very much aid the Society.

In consequence of the commercial depression, the ground presented to the Society by the Hon. G. W. Allan is still unimproved. The *greatest number* of premiums during the past year have been obtained,—for Plants, Hon. S. B. Harrison; Fruits, G. Leslie; Vegetables, George Lewis.

Amongst the premiums for 1859, we notice that one of the members offers $5 for the best hardy perennial border plant not before exhibited.

CINCINNATI HORTICULTURAL SOCIETY.

Bacon's Buildings, April 16, 1859.

President Hazeltine in the chair.

Minutes read and approved.

A quorum of the Council not being present, no report could be made with regard to the Spring Exhibition.

On motion of Mr. Sanford, it was

Resolved, That the premiums offered for articles exhibited at our Spring Exhibition shall not exceed the net receipts of said exhibition, and that, if such receipts are less than the premiums will amount to on the premium list, then such premiums shall be reduced *pro rata*.

Some discussion occurred on the subject of distinguishing the natural growth and character of our fruit trees, with regard to classifying the different kinds in their position in the orchard as to the space each sort will occupy and require, when the whole matter was laid over until next Saturday's meeting, at which time the Committee on the subject, as well as the members at large, will co-operate in the arrival at the desired knowledge and result.

Moved by C. J. Hooper and resolved that this Society, in view of the continued indisposition of one of its oldest and most respected members, Mr. A. H. Ernst, one who has ever been zealous, intelligent and energetic in its interests, and whose attendance used to be so constant, express their regret that his ill health should still continue to prevent his attendance at their meetings, and now express their hope that he will soon recover his former good health, and speedily be enabled to visit our hall as frequently as formerly.

A fine plant of Longworth's Prolific Strawberry was exhibited from Mr. Longworth's forcing-house, by his gardener, which did credit to the latter's cultivation, and some of the berries of which were nearly ripe.

Mr. Hazeltine exhibited a most luxuriant, largely-spreading, very dense and profusely-flowering plant of the dwarf variegated Azalea, not more than fifteen inches high, whose thickly-studded, beautiful parti-colored flowers presented a most gorgeous appearance—some of them being striped pink, some entirely of a pinky-scarlet, and others, again, nearly pure white. This splendid plant measured nearly six feet across—foliage rather smaller than most specimens of this family, but very compact, and of a fine, glossy, light green shade.

Mr. Isaac N. Laboyteaux, now of Madison, exhibited a very large and vigorous plant—one of our lovely and earliest wild flowers—the oxalis lutea—with yellow flowers and grape-vine-like leaf: a well-known kind hereabout.

Twelve new members were elected.

Adjourned. E. J. Hooper, Secretary.

Bacon's Buildings, Saturday, May 7, 1859.

President Hazeltine in the Chair.

Minutes of the last meeting read and approved.

The subject of the fruit prospects having been brought up with regard to the continued brightness of their appearance, Mr. Stoms reported that he had been informed by several large and experienced fruit-growers on both sides of the river, that a considerable number of the apples and peaches were falling off, and would be much less abundant than had been represented from the reports brought to the Society two or three weeks ago. The mischief this year was not from frosts, but the cold winds had arrested the sap in its circulation. In places exposed to these winds there would not be much fruit.

Mr. F. G. Cary was not yet alarmed but that there would be generally a very fair crop of fruit. A large proportion of the rate winter apples would be deficient. The early apples were in a better condition.

Mr. W. Orange observed that two weeks ago the prospects for fruit were much greater with him than now. There was much difference in the bearing of his trees. His show of peaches was poor; also plums—pears much better.

Mr. Rielly remarked that the altitude and aspect was very important to know, particularly this season, as some of the lowest grounds, as well as the highest, promised abundant crops. The eastern exposure seemed the best this year, sheltered from the west and northwest severe blasts.

Major Milliken stated, that on Judge Anderson's hill, about two hundred and fifty feet above the Big Miami, and half a mile from it, the fruit did not look near so well as that on the bottom lands. The winds have been very hard and cold. Fruit on the eastern side looks much better than on the western. Ordinarily, he still considered fruit did a great deal better on an elevated site.

Mr. Addis could not congratulate himself on a very good prospect for fruit. His locality, Chevoit, was about as high as College Hill. His apricots on the north side were crowded, and on the south side not any.

Mr. Heaver accounted for trees falling in fruit, on elevated points, this peculiar season, from the fact that while they were in bloom they were exposed to severe cold winds, accompanied by much rain and sleet. His opinion as to sharp points of hills, or knobs, above deep valleys, (not so much elevated plateaus,) for success with fruit, especially peaches, was still unchanged. The late failures rose from the effects of cold and very violent winds, with excessive rains, and not either from frosts or the wood not being well ripened—which was not the case. The blossoms were all very heavy this spring, but were greatly destroyed by excessive wet weather and blasting winds.

Mr. Cranch reported that at the Society's request, he had tested the comparative esculent qualities of the rhubarb when blanched and when not blanched, and that the result is this: There is no material difference, culinary or esculent, except that in the blanched specimens the peculiar medicinal rhubarb flavor is entirely absent. The color also is white, and the acid cannot be corrected with a less amount of sugar.

FRUIT COMMITTEE'S REPORT.

From F. G. Cary: Strawberries—No. 1. A seedling cross between the Superior and Prolific Hermaphrodite, not fully ripe.

No. 2—A pistillate—inferior.

No. 3—A seedling, a cross between Superior and Prolific; the plant grown in a pot, showing thirty-eight well-matured berries; shape resembling Superior, dark color, fine flavor and of high promise.

No. 4—A staminate seedling, collected in the woods; rather tart.

No. 5—Exhibited as Jenny Lind; a conical, light red colored berry; seeds very small, and rather deeply sunk.

William Heaver,
John P. Foote,
John M. Millikin.

FLOWER COMMITTEE.

Some specimens of flowers of that beautiful native bulb, the Phalangium esculentum, with the following interesting communication accompanying, which was recommended to be published:

"*Cincinnati, May* 7, 1859.

"*To the Cincinnati Horticultural Society:*

"Gentlemen—I herewith send you some specimens of Scilla esculentum (Linnæus), or Phalangium esculentum (Tourneforte), called 'Quamash' by the Indians. This plant is the 'Beargrass' of the early settlers, and was used by them for food in times of scarcity of ordinary provisions. It is closely allied to the Asparagus, which it somewhat resembles in taste, but is rather sweeter, as you will find by trying the white portion of the leaves and flower-stalks. The whole plant, cooked and dressed as we do Asparagus, will probably be found to be at least palatable, if not really good. The root contains a considerable quantity of starch and mucilage, and is apparently well calculated to sustain life. In digging for its onion-like root, it will be necessary to go down entirely through the upper stratum of light soil, into the clay subsoil beneath, imbedded in which you will find the root. I dug them in places where the light soil varied in depth from two to three inches to a foot. In every case the root was beneath, in the hard clay. This peculiarity should be borne in mind, in case it is desired to cultivate the plant. The flowers are now in full perfection, and present rather a beautiful appearance, but are rather short-lived.

"I have found the plant only in one locality in this neighborhood, though, perhaps, it may be found in other spots. These specimens grow in the shady hill-side, in the rear part of the grounds of the Wesleyan Cemetery at Cumminsville, one of the very few places in this vicinity where the native growth of plants is allowed to remain undisturbed.

"Very respectfully, H. W. Fowler, M.D."

From N. Longworth, specimens of the lovely Dodecathon Mædia, with communication, viz:

"*Cincinnati*, May 7, 1859.

"*To the Horticultural Society:*

"I send you blossoms of a wild flower of our State. The father of these I found in the woods in Greene County, near fifty years since, dug it up, carried it round the circuit, brought it home, and planted it. Not knowing its name, I gave it the name of 'The Pride of Ohio.' In Europe they have a similar plant, that it seems does not bear more than two-thirds the number of blossoms. It is there called the Dodecathon Mædia—'Twelve Heathen Gods—from the number of its blossoms. Young people are forgetful. I do not recollect the name of any flowering plant that has a firmer aroma and more beautiful flowers than this. Favor me with the name of one superior to it. Continued rains greatly injured my strawberry plants; but two new seedlings, two years old, I cannot complain of: one has two hundred and forty-five blossoms, the other one hundred and forty-five.

"I send you some blossoms of the English Horse-chestnut. Do we not show a great want of taste, by not having a large number of these trees on our sidewalks?

"Very respectfully, N. Longworth."

Also, from N. Longworth, some flowers of the English Horse-chestnut, a fine-flowering hardy tree. William Heaver,
John P. Foote.

REPORT OF THE VEGETABLE COMMITTEE.

Mr. John E. Mottier exhibits three bunches of Asparagus of uncommon size and tenderness; cuts from nine to twelve inches in length, and from one-half to three-fourths of an inch in thickness, highly flavored and beautiful of form. W. Sturm,
W. Heaver.

On next Saturday the Council will decide whether the coming Spring Exhibition will be held on the last week of the present month (May), or on the first week of June, when it is hoped, also, that members will next Saturday express their opinions as to the approaching festival, generally.

Some small insects were brought in by a gentleman, signing his initials only. They are represented to have first made their appearance on an auracaria excelsa, and as having probably been introduced into the greenhouse through the means of forest mould. They will be referred to the Committee on Entomology.

Adjourned. E. J. Hooper, Secretary.

Bacon's Buildings, Saturday, May 14*th*, 1859.

President Hazeltine in the chair.

Minutes of the last meeting were read and confirmed.

It being remarked by several members that those pests, the nests of caterpillars, were comparatively very scarce this spring, Mr. F. G. Cary observed that even the Wild Cherry, their most favorite tree, was almost entirely free from them this year. He remembered that years ago they almost entirely disappeared in the same mysterious way. It seems that these insects, like others, perform their circle, in some degree, or are operated upon, either favorably or adversely, by the character of the seasons, with regard to wet, heat or cold, etc. Mr. Cary also stated that the Curculio already had been very busy with its operations on nearly all our fruits this season, especially Pears. They deposit their eggs on the Peach as well as other fruits, which causes them, similar to the Plum, to fall off before the pit of the Peach is hardened. After that takes place, the mischief is quietly discovered in the prematurely ripened fruit by the bitter taste and ash-like particles inside.

A communication from Mr. A. H. Ernst, on the subject of a Committee of the Ohio Pomological Society meeting in Cincinnati, at the time of the Horticultural Society's Spring Fair, to examine and report upon Spring fruits, was read, and referred to the Council.

A letter from Mr. Longworth, on the subject of Strawberries, was read and referred to the follwing Committee, viz: Messrs. Cary, Mears and Sandford, to make a report thereon.

Resolved, That the Spring Fair and Strawberry Festival be held in the first week in June, in Pike's Opera Building, and that the Council be requested to meet at the Society's rooms to take into consideration the arrangements for the same. By order of Chairman of Council. S. Sayers.

Mr. E. C. Hawkins presented to the Society a very fine and handsomely-formed photograph of Dr. Mosher, of Latonia Springs, Kentucky, one of our oldest, most respected and intelligent members and horticulturists, for which acceptable gift Mr. Hawkins received a vote of thanks. Adjourned.

E. J. Hooper, Secretary.

MERAMEC HORTICULTURAL SOCIETY.

The regular Monthly Meeting on Thursday last, at the house of Dr. A. W. McPherson, in Allenton. The meeting evinced a rapidly increasing interest in the subject of fruit growing: for, be it remembered, this was the fifth meeting of the society; and when its first meeting was held, barely a dozen attended. Now over forty members are enrolled, and each monthly meeting adds to the number. The Meramec Valley is rich in material for a fruit growing country: her deep alluvial deposits in the valleys furnish just the food requisite for all the varieties of the smaller fruits, while the hills, rich in minerals requisite to the formation of healthy fruit trees, are at the same time so elevated as to be out of reach of the ordinary frosts that destroy the fruit crop at Alton, and at other points in our sister State, Illinois. No fruit man should fail of looking this section over, and if his judgment of the soil, etc., is not sufficient, let him attend a meeting of the Meramec Horticultural Society, and our word for it, he will see enough to prove what we have above stated.

John S. Seymour, Esq., of Eureka, exhibited superior specimens of the Green Newtown Pippin Apple—a variety, that while it does not perhaps keep quite as long as the yellow, is certainly more tender and delicate as a table fruit.

A little son of O. Kittredge, Esq., of Allenton, presented the Society with a magnificent bouquet of wild flowers, culled from the country surrounding that town. The bouquet had some three or more varieties of Verbena, three of Phlox, one or two of Iris, etc., many of which we recognized as sorts we had cultivated with care at the East, as varieties, here they grow wild and in abundance. The Society appointed a Committee on the collecting, classifying and enumerating the native wild flowers of Meramec Township.

During the day the President invited the members present to walk over his grounds and examine what he had, been doing toward the formation of a fruit farm; and while we were walking and gazing at the state of progress evidently going on, we were informed that two years had elapsed since the first tree was planted by the man who has now some two thousand orchard apples, as many more of peaches, some hundreds of cherries, one thousand each of gooseberries, currants and raspberries, and of pears and plums certainly an abundance; and now, we were told, the spirit had just begun to work. The prospect of making it pay was as evident as a certainty; and he should "go on doing." We confess it shows some chance of "fruits for the million" when men go ahead in this way—clear the ground and plant out such orchards in two years time; but after all, we believe "the millions" will grow on in the cities faster than the trees to supply them in the country, and that ten or fifteen years hence, the price of fruit will be fully as much in St. Louis market, as at the present day.

The next meeting of the Society is appointed at the house of Charles H. Havens, Esq., at Melrose, on the first Thursday in June.—*Missouri Democrat.*

FAIR AT LANCASTER, PA.

We learn from the Lancaster (Pa.) papers that the "Historical, Agricultural and Mechanics' Institute of Lancaster," are to hold a "Mechanical and Horticultural Fair," at Fulton Hall, commencing on Monday, June, 13th. From the arrangements which are made, and the list of premiums offered in the several departments, it is believed that the Fair will be one of the best ever held in the State out of Philadelphia.

UNION SPRINGS SHADE TREE ASSOCIATION.

The inhabitants of Union Springs, a thriving village on the banks of Cayuga Lake, New York, formed an Association, with the following regulations in substance: Each member pays an admission-fee of one dollar, which is applied in procuring and setting out trees in such places as the owners are unable or unwilling to plant—any additional sum from a member is expended in planting trees at cost along his own grounds or where he may direct.

The admission fee of the association amounted in the first place to some $40 or $30—a part of which was from day laborers to be expended in work. The executive committee after exploring the adjacent country, found a fine natural nursery of maples and other native trees which they secured at five dollars per hundred. They were dug *with the roots*, (the roots are commonly cut off in such cases) and several teams were despatched for them. Over six hundred trees have been thus procured at a small cost, and have been placed along the streets; and if half of them grow and flourish, they will increase the market value of the lots they adorn at least ten times the amount of expenditure.

This may not be the best mode, in every particular, of accomplishing so desirable an object; but it may furnish hints for an improved mode of proceeding in other places. It will be perceived that in all such cases, cattle must be excluded from the streets.—*Country Gentleman.*

ROYAL BOTANIC SOCIETY, Regent's Park. London.

APRIL 6th.

The second of the three Spring Exhibitions took place this day. In the class of Fine Plants Messrs. Fraser sent a fine example of the handsome Maderia Muschia Wollastoni, not however yet in bloom; Messrs. E. G. Henderson had Gastrolobium spectabile, a neat shrub, with good foliage, and gay orange and crimson flowers; the same exhibitors likewise sent Acacia himalaica a distinct hardy shrub, with shining green leaves, having distant white-tipped teeth; Messrs. A. Henderson & Co. furnished Griffinia Liboniana, a rare plant, with prettily-spotted leaves and flowers tipped with blueish-lilac; Messrs. Ivery & Son, of Dorking, exhibited a small blue-flowered Hardenbergia; Messrs. E. G. Henderson also had Rhododendron Blumei, a species with small creamy-yellow flowers; and Pentapterygium flavum, with axillary racemes of white vacciniaceous flowers. Of Miscellaneous Plants Mr. Cutbush, of Barnet, had a collection in which a fine mass of Begonia Rex was conspicuous.—*Gardener's Chronicle.*

APRIL 20th.

This was the last of the three Spring Meetings.

Messrs. Henderson & Sons, St. John's Wood, obtained the first prize in the class of New Plants, with the Fremontia californica, nicely in flower. The same firm sent a fine Lonzaita called Bidwillii; it is a distinct and handsome addition to the class of fine-foliage plants. They had also a pretty Bejara called microphylla, Arthrotaxus Doniana, a small-flowered orange-yellow Sedum, and a Ferula-like plant named Moncsia (?) edulis.

Messrs. A. Henderson & Co., Pine-apple Nursery, had a nice plant of the handsome Cyanophyllum magnificum, and a very fine double-flowered Datura, said to be from Australia, having the habit of arbores, and fine creamy yellow flowers. They also had the beautiful New Zealand Todea hymenophylloides, one of the most charming of all.

Messrs. Fraser, of Lea Bridge Road, had nice plants of the fine Clematis lanuginosa and C. luginosa pallida; Labichea diversifolia nicely grown; an Azalea called Benno, with very large but coarse-looking flowers, rose-colored, the upper half purple; and another Azalea called Roi Leopold, a well-formed, handsome flower of a salmony scarlet.

Mr. C. Turner, of Slough, had a seedling Azalea, called Perfection; it is a bold and striking flower of excellent properties, and of a bright rose or purplish-tinted rose, spotted distinctly on the upper segments.

Messrs. Ivery & Son, of Dorking, had a seedling Azalea, a semi-double white, with flowers of fine substance and of good size: a fine decorative variety.

There was a large and brilliant group of the new class of spotted French Pelargoniums contributed by Mr. Turner, among which Raphael, a dense shaded crimson, Comet, brilliant scarlet, and Virgine, bright carmine, were conspicuous from their intense coloring.

Mr. Standish of Bagshot, showed cut branches of the Exochordia grandidiflora, laden with its snowy white flowers.

BROCKVILLE HORTICULTURAL SOCIETY, Canada.

The first exhibition will take place on the 30th of June, and the second some time in September. The list embraces the usual varieties in the Floricultural, Fruit and Vegetable departments; and we hope the Directors will see that the Society is as well represented at the Provincial Show in Kingston, as it was last year in Toronto.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. JULY 1, 1859. VOL. I.---NO. 7.

CALENDAR.

7th Month, July, 1859, 31 Days.

Moon's Phases		Boston.	Philad'a.	Baltimore	Charl'tn
	M	h m	h m	h m	h m
Full.	7	1.10 mo	0.53 mo.	0.47 mor	0.35 mo.
First Quarter.	14	8.00 ev.	7.52 eve	7.46 eve.	7.34 ev.
New.	22	10.42 ev.	10.25 eve	10.19 eve.	10.07 ev.
Last Quarter.	29	5.00 ev.	4.43 eve	4.37 eve.	4.25 ev.

Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	7	4.29	7.39	4.38	7.31	4.40	7.28	4.58	7.11
	14	4.33	7.36	4.42	7.29	4.45	7.25	5.02	7.09
	22	4.43	7.30	4.49	7.23	4.52	7.20	5.06	7.05
	29	4.50	7.23	4.55	7.17	4.57	7.14	5.11	7.00

This Calendar will answer for the sun for any place in the same latitude.

Hints for July.

FLOWER GARDEN.

No June, for many years past, has been so favorable to the Rose as the past one. The Lions des Combats, Caroline de Sansals, Jules Margottins, Lord Raglans, Prince Alberts, and other standard and indispensable kinds have never been finer. Blooms four inches across have been of common occurrence. As soon as possible after the flower fades, the pods should be cut off, to encourage a succession of flowers. This cannot be effected unless the shoots make a new growth. Pinching off the pods tends to encourage this growth. This may be also much furthered by watering the plants, if the weather prove at all dry, with manure-water. The sweepings of a hen-roost, guano, hot-bed manure, or any thing of a similar nature may be employed. Guano-water must not be made too strong—about half a pint to two gallons of water will be sufficient. The water and manure should be put in a barrel together, and the liquid suffered to become clear before using. When applied, the soil should be drawn away from the plant, so as to form a basin around it into which to pour the water. It will then soak in thoroughly. A half an hour or more afterwards, the soil should be lightly closed in again about it. Other plants besides Roses that it may be desirable to make grow well, will push vigorously under this treatment.

Those who have had their Roses grafted on Manetti stocks, have been well repaid this season by the larger size and greater vigor of the flowers than those on their own roots; but they who reap larger harvests must expect to expend more capital, and so Manetti Rose stocks will take more labor. The suckers which they sometimes produce must be carefully looked after. They will appear at this season freely. If taken off as they appear, they are seldom troublesome after the first season. If any doubts occur as to what shoots may be suckers, and what is produced from the grafted kind, an examination of the leaves will soon tell. The leaves of the Manetti are of a much lighter green than any kind usually grafted on it. A very little practice will readily show the difference. In some cases the discovery will be made, that the suckers have already starved to death the grafted portion. Instead of resolving to root out the stock, decide to inoculate on it at once a great variety of hardy perpetual Roses. It will form a pretty object—a perfect bouquet of Roses. The kinds selected should be as nearly as possible of the same ratio of growth. If weak kinds are employed with others, the stronger will ultimately outgrow and destroy them. Some hints for budding will be found under the Nursery head.

Attention can be bestowed at this season on improving the form of trees and shrubs. In some parts of a large garden, trees are in better keeping with surrounding scenery when suffered to grow wild and pretty much to themselves; but near buildings, or in any part of a garden which is to denote high keeping, symmetry will ever be considered a chief element in beauty, and the aim be what, after all, is the true object of gardening, an improvement, or a triumph, in fact, over the prettiest natural scenes. Trees and shrubs can be made as regular as we wish, by training a shoot here and tying one there—now using a stake, and at another time employing a string. After a few weeks they will grow as you have placed them, and exemplify the adage, that "as the twig is bent the tree's inclined." The most malformed or ugliest specimen of an evergreen may be made an exquisite "thing of beauty" by such trifling care.

Ornamental flowering shrubs, too, are in the same category. A few very strong, vigorous shoots will sometimes push, to the extreme jealousy of weaker members of the confederation. You will have to play the emperor—maintain the balance of power, and by a few vigorous attacks of the pruning-knife at the base of such arrogant pretension, end the cause of the trouble by taking them completely away from the scene of strife.

And the hedges—do not forget them. The tops have been already trimmed, or ought to be, and the shoots at the base beginning to push with great vigor. If it is not done,—as from the many new subscribers the *Monthly* is receiving daily, and who may not have as yet received the back numbers of our paper, may possibly be the case,—no time should be lost in the operation. Remember to train your hedge conically; prune severely while growing towards the apex, and very little at the base; and in winter cut very vigorously at the base, and but very little at the apex. That is the rule of success.

FRUIT GARDEN.

We might pass over this department entirely this month, were it not for the constant attention required in the way of summer pinching and pruning and training in order to produce the best results. We have already so fully explained all these matters, that nothing more remains to be said but to refer to our previous remarks. For the destruction of insects, also, the fruitist must be awake to every hint. Almost all the prescriptions given for the preservation of fruit, tends merely to the driving away of insects. Pay the most attention to those hints which propose their destruction. Every *one* destroyed is worth a hundred driven away. They cannot starve,—something they will have, in spite of all we can do. Bottles of sweet liquor, or vessels containing enticing deadly matter, are among the best modes of providing for them. As we write, we remember a boyish mode of catching sparrows, by surrounding a lamp by a net, and by frightening the birds from their slumbers, they would go towards the lamp and *into* the net. Most kinds of insects injurious to fruits work in the night. Possibly a lamp, surrounded partially by some sticky substance, might attract and destroy numbers. The hint is perhaps worth noticing.

VEGETABLE GARDEN.

Our hints for the last month will, in a great measure, bear a re-perusal at the commencement of this.

Towards the end of the month, Endive sown last month may be transplanted. They should be set out in rows eighteen inches apart, and one foot from each other. The soil can scarcely be too rich for them. Seed may yet be sown for a later crop.

If Brocoli is a desirable vegetable, they may be had all through the winter by being sown now. In about four weeks plant out into rich garden soil. On the approach of frost, take up the plants, with a portion of soil adhering, and pack them closely in a warm and somewhat damp cellar. They will continue to grow, and produce nice heads.

Beans may be sown up to the end of the month. For winter use, the White Kidney is very popular, although other kinds are very extensively grown for the same purpose.

In some families large, full-grown Carrots are objectionable. Seeds of the Long Orange sown now on rich sandy soils, form neat and desirable roots before winter. The same may be said of Beets.

Cucumbers for pickles are also sown about this time. They usually produce a greater number, and consequently smaller fruit, than when sown earlier. The Short Prickly is the kind to employ.

The main crop of winter Cabbage is often planted the first or second week in July. In planting, if the weather be dry, it is a good plan to make the holes before planting and fill up with water; after soaking away, the plants may be set in, and they seldom wither afterwards, though without rain for a month. Another and more expeditious plan is to have the plants ready with their roots in a pan of water. They are then set into the hole at the time it is made. The water adhering to the roots then gives to the set out plants the advantages of puddling.

Celery we have spoken of last month. The remarks are yet applicable.

NURSERY.

Inoculating or budding various kinds of fruit and ornamental trees and plants will be the subject uppermost in this department at the present season. There is not a great deal gained, in point of time, over grafting next spring, as they both push and shoot together; but the saving is in this way, that it gets a great deal of work done now that could not, perhaps, be done in the more busy season of spring. There

has been a great deal written on the time when best to bud, and many other incidental circumstances. But the best time really is any time when you can get the shoots you wish to propagate from, to afford you good, hard, firm buds, and when you can get the bark to run freely. Most failures in budding are from the buds being too green. A bud cannot be too hard. Indeed, if you can find a bud on a last year's shoot sound, and yet dormant, it will grow with much more certainty than one from a young green shoot of this season's growth. The bark of the scion should lift easily. This it will not do, if at all starved or stunted; so the more luxuriantly the stock can be made to grow, the more certainty will there be in the success of the buds.

Every one knows how budding is performed. It is a beautiful and interesting employment, and we cannot but wish that if any of our lady readers are ignorant of the manner of doing it, they would take an early opportunity of getting some gardener to show them. A bud is taken out of a shoot of any desired kind we wish to propagate from. About half an inch of bark is taken with the bud, both above and below it. The knife, in taking out the bud, penetrates about one-third the depth of the shoot,—only so far, in fact, as to take the bud cleanly out, with as little of the wood as possible. What little of the wood comes out with the bud, however, is suffered to remain in. A slit is then cut in the stock in the shape of a T, the bark gently raised, and the bud inserted. After this, worsted or bast matting is tied closely around it. It is important to tie very closely, to prevent moisture escaping from the bud until it has united with the stock, or it will dry up. Many professional budders have budding-knives made on purpose, the blade like a penknife, and an ivory or bone blade in the one end to raise the bark with; but it is quite as well, if not better, to have a quill split and the end pointed, attached to the base of the knife. When properly adapted to the work, the bark can be raised much quicker than the most accomplished expert can do with the common blade.

In budding ornamental trees, it must be also borne in mind, that the softer the wood of a tree is naturally, the later will be the period when it may be successfully budded. Hence many Maples cannot be budded till long after Horse-chestnuts, because the wood is so soft and spongy for so long a time after the other is ripe.—Pinching off a shoot, or in any other wise accelerating the hardening of the wood, will hasten the time when you may bud them. The Cherry, too, often fails from this cause. Choose the very ripest buds you can find, and if the stock runs freely, there will be few failures.

Every one knows that in planting the dwarf Pear, it is now deemed a great point to set the *grafted portion* of the plant so that the quince root is set an inch more below the surface of the soil at the point of junction with the pear. It is also a well-known fact that it is injurious to all roots to set them deeply in the soil. Now, it often occurs that buds are inserted in the quince stock six inches or more above the surface of the ground. Such grafted quinces have to be set as deep as hitching-posts to get the graft fairly under, and the roots must, of necessity, become diseased. The argument is that it matters not, as the quince sends out roots so readily from any part of its surface, that new ones are speedily formed to replace the other ones below. All very true; but may not the disease engendered in the buried roots be absorbed through the whole tree, to its permanent injury? and may not this have something to do with the failure, in some cases, of the dwarf Pear? We are surprised that in some of the discussions on the question, this has been so little alluded to. However, whether injury results from this or not, the cultivator may be safe on this point by budding his quinces as near down to the surface of the earth as possible. No harm will result, if good does not ensue.

Communications.

LETTER FROM IOWA.

BY MRS I. D. F.

OSKALOOSA, IOWA, May 24th, 1859.

WE have a splendid country here, which, in the course of time will be one of the many garden spots of the earth; but at present it seems to be as impossible for cultivated fruits and flowers to thrive in the prairie soil with the native flowers and fruits, as it is for the Indian to live near a civilized city. We miss the old-fashioned flowers very much—the Pæony, Hyacinth, &c. I have had little time to cultivate garden flowers, as I have so many "immortal ones" to tend and train; but as they are becoming capable of acting and thinking for themselves, I have come to the conclusion that it is the best policy to teach them to cultivate a small garden, and endeavor to instil in their minds a love for the beauties of nature. If the knees of their pants should be minus, I believe it would be a better safeguard for their morals than all the good advice moralists could pour upon them. But how shall I get about it? Our nurserymen bring on a great amount of half-dead shrubbery from Eastern nurseries, shipped, no doubt, in good order, but delayed and frozen until it is impossible for most of it to grow. Dead as it is, it sells readily at high rates, especially evergreens. They are my husband's favorites; but they sell so high and die so easy, that he has given them up for the present, until our nurseries can furnish them from their own beds.

We have been here nine years. We have near 2½ acres now in the city corporation. It is fenced with the Osage Orange, which bids fair to make a fine fence. When neatly trimmed, it is the most beautiful fence I have ever seen. Our farmers object to it on account of its freezing out in the winter. A wet soil does not agree with it. So far, it is successful.

We have planted and re-planted a small apple-orchard, being determined to succeed or leave before the first hard winter. We had a few of the most beautiful apples I ever saw. This season the trees all look fine; the older ones promise a bountiful crop. I believe there is a better day dawning for Iowa. She has passed through a hard scourge these last few years—hard winters, wet summers, and the commercial storm which has swept over her—all combine to make times very hard.

It is a great grazing country—good for all kinds of grains, and I believe will eventually be one of the finest fruit States to be found. If our apples mature this season, I would love to send some to the Horticultural Society of my native State (Pennsylvania), *i.e.*, if I can find out how to go about it. Currants, Gooseberries and all small fruits grow to perfection.

Can we get evergreen seed, or the seed of the Dahlia? Does the Passion Flower have seed?

I would beg a thousand pardons for this lengthy *infliction* on your valuable time, did I not believe that, valuable as your time may be to yourself, you could not be better employed for the benefit of the world, than to enlighten the ignorant and encourage the careless on a subject of so much importance as horticulture; for, could you succeed in drawing our attention in that way, you would do as much to soften the hearts and elevate the souls of our Western people, as if you would send out some missionaries to Christianize us. Men need more beauty, and less law, forced upon their attention, to raise their care-worn souls above the trials of earth.

Yours respectfully,

MRS. I. D. F.

[So far from groaning under the "infliction" of our fair correspondent, we are actually wishing for a repetition of the *lash*. It ought to be easy enough to get young trees safely into Iowa, though packed up for six weeks, if ordered direct from the many responsible nurserymen, who understand packing; and it ought to be easy to get them to grow afterwards, if the purchaser understands how to preserve his purchases for a few months from cold winds and scorching frosts, which invariably play a great part in *drying* out the life of a newly-planted tree. Soils in which Osage Orange freezes out in winter, require *under-draining;* the plants will not draw out after.

The Passion Flower produces fruit like large Potato balls; but it bears seeds so seldom here, that they are rarely or ever so raised. Nurserymen depend on cuttings and layers. Dahlia seed can sometimes be obtained at the seed stores, but not often, and we must tell you, that from one hundred seedlings, you would not probably have one flower worth looking at. It is an art to raise good florist's flowers from seed.—ED.]

THE CENTRAL PARK IN NEW YORK.

The commissioners have published their second annual report. We learn from it that the expenditures upon it thus far have been $585,369 27. The drainage is nearly completed, the drive for the most part graded in the lower portion of the park, and several miles of walks are graded, drained, and gravelled, and in a condition for use. The ride for equestrians is in progress. The bridges or viaducts over which the carriage-road is carried and under which the horse-back ride is to pass, are in a state of forwardness, and promise to be structures of beauty as well as utility; the promenade, a prominent feature of the park, is nearly completed, with its broad walk and rows of transplanted trees of twenty years growth. The planting of the park with a variety of shrubs and trees is rapidly progressing. A lake of about twenty acres above Seventy-sixth Street is so far completed as to admit of filling it with water. The lower lake at Fifty-ninth Street, near Fifth Avenue, is also well advanced. The play-ground and the parade-ground are nearly complete. In another year the park will be a delightful place of resort. It already has many visitors.

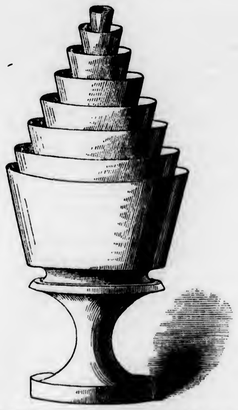
RUSTIC ADORNMENTS.

BY A LADY SUBSCRIBER.

Mr. Editor:

IN your last number there is a description of a Bouquet-holder that closely resembles, in principle and appearance, one of my own invention. I went to a China store and selected about six or eight China or Liverpool-ware cups, of such sizes as would just fit into or nest in each other,—commencing at the largest sized coffee-cup, or small bowl, and ending with the smallest of a child's tea-set. I then placed under the bottom of each of them a circular piece of wood (such as come with ribbons, but any thing else will answer the purpose) to separate the cups, so as to leave a space for putting the flowers into. A drawing will assist you in comprehending the idea. See fig. 1.

Fig. 1.



It is not necessary that the cups should be one uniform shape, as none but the lowest cup will show when the flowers are arranged in it. The lower cup should be mounted on a wooden base, with a circular rim around the upper edge of it to hold the cup firmly, or else it can be placed inside of an ornamental vase.

A new species of scientific decoration for rooms has recently made its appearance in Europe, called the "Vivarium." It is intended as an aid to the study of entomology. It is a glass case, somewhat like an aquarium, and sometimes combined with one, as in the illustration which I send you, (see fig. 1,) from a work recently published in London, England, entitled, "The Butterfly Vivarium, or Insect House," by H. Noël Humphreys. Cocoons of various insects are collected in the fall from trees, and placed inside the Vivarium, and the heat of the room soon causes the chrysalis to assume the moth shape and eat its way out of the cocoon and lay its eggs, which in a short time hatch into a grub, and so the process goes on. A wooden box with a glass front, I should suppose, would answer the purpose equally well, but would not, of course, be so ornamental. Persons who will take the trouble to collect a large number of these cocoons, will be surprised at the variety and beauty of the moths. A German, who lived in a neighboring town to me, has for years past been in the habit of making collections for the purpose of exporting them to Europe, where, he informed me, he found a ready sale for them to scientific institutions and individuals.

It is possible you may have seen the work I refer to; but it has interested me so much, that, at the risk, I venture to call your attention to it. If you think the hints of any service for your *Monthly*, I shall be gratified.

Fig. 2.

Another very pretty "decoration for a home of taste" is a shade for a lamp or gas-light, ornamented with dried flowers and autumn leaves. It should be made of good stiff drawing-paper, not so thick as to render it opaque. The pattern of the shape can be obtained by flattening out an old one, or by experimenting until you get it correct. Some neat small trailing vine should be selected to form the *stem* of the design. For this purpose nothing is prettier than the small *Lycopodium denticulatum*, which can be obtained of any florist. You should select, when in bloom, such flowers as preserve their color, and place them between blotting-paper, with a heavy weight on them, taking care to change the paper every day or two, until they are perfectly dry, to prevent their moulding. Pansies, Larkspurs, Geraniums, Verbenas, Convolvulus, and other high-colored flowers with thin petals and but little moisture in them, are the best for the purpose. After the flowers are properly dried, (in doing which they should be kept very smooth,) they should be gummed or glued on the outside of the shade, and, as a further protection against injury by handling, it is better to cover the outside with tarlton muslin or gauze, but this is not indispensable.

Fig. 3.

I have seen, very recently, a beautiful flower-stand for the growth of trailing plants in rooms. It was an upright piece of wood, (which can be turned or carved to make it more ornamental,) from which extended three tiers of arms of wire, bent somewhat like the arms of a chandalier, from each of which were suspended a tolerably large conch shell, filled with earth, in which the flowers were planted. The uppermost tier of arms were quite short, and were five in number. The next tier below was longer, so as to extend beyond the upper one; while the lowest one was still longer.

The shells are suspended by small copper wire, which is passed round each end of the shell. It is not necessary to have holes drilled in the shells. The upright and the arms can be covered with moss, or may be formed with pieces of wood with the bark on.

Yours respectfully,

A LADY SUBSCRIBER.

[WE are much pleased to receive the interesting communication from our fair friend. Ladies are always the best judges in matters of taste, and we hope they will take this department of our paper under their especial care.—ED.]

DISTINCTIVE CHARACTERISTICS OF THE FOREIGN AND NATIVE GRAPE VINES.

BY JOHN PHINN, ROCHESTER, N. Y.

Editor Gardener's Monthly:

IN the May number of your excellent periodical, J. B. Garber lays down, as a distinctive feature of the foreign grape, the extreme brittleness and *fuzziness* of the bark, and thence infers, that as the Delaware shows these characteristics, it is decidedly a foreign variety. I confess I was somewhat surprised at this, having in my mind the statement of Redding, in which, after setting forth the extreme value of the grape vine, he declares that every part may be turned to useful account, and, amongst other illustrations, notices the fact that the bark may be used for *tying up the vine*—the very test of toughness applied by Mr. Garber. It must also be borne in mind that Redding is speaking of the European vines exclusively—not of those of American origin.

With me this would have been decisive, but having the opportunity, I examined a vine of the Traminer variety growing in my garden, and which I knew to be genuine,—it having been imported directly from Germany,—and there I find the bark to be sufficiently tough to destroy the value of the proposed test. I find, also, that several varieties of grape vines from the hills of Hungary, afford bark of considerable toughness. I therefore conclude that the condition of the bark, as regards its brittleness, is an accidental feature, depending upon the circumstances in which the vine is placed. Indeed, I have observed it upon an Isabella vine this spring, though I did not note the facts with sufficient accuracy to state them fully. I am inclined, however, to regard it as a morbid condition.

While on this subject, allow me to state, through your columns, what is no doubt well known to all intelligent vine-culturists, but which sometimes seems to be forgotten, and that is, that the downy pubescence on the underside of the leaves is not a distinctive feature. We sometimes find it stated as such, but erroneously. Some of our native kinds are free from it, while some foreign varieties (especially the Spanish) show it in a marked degree.

One of the great difficulties connected with the subject (the classification and identification of native and foreign varieties) arises from the fact that they differ as much amongst themselves as they do from one another; and I think I may safely add, that he who will carefully and accurately classify and describe the different varieties of the vine—native and foreign—and point out the distinctive characteristics of each, will supply a much needed desideratum, and confer an incalculable benefit upon the vine-grower.

ROCHESTER, May 20th, 1859.

[MR. PHINN is the author of "Open Air Grape Culture," and his remarks, from his acquaintance with the subject, will possess a peculiar interest to our readers. That the foreign grapes, *under glass*, permit their barks to peel off in long strips, as described by Mr. Garber in the native kinds, is, we think, within the experience of every greenhouse grape-grower. We understood Mr. Garber's remarks to apply to foreign grapes *in the open air*, and Mr. Phinn's experience with the Traminer is quite to the point.

BEURRE D'ARENBERG PEAR.—The proper mode of spelling the name of this pear is *D'Arenberg*, and not D'Aremberg, as is generally done. It was named after a distinguished family of that name in France.

IMPROVEMENT OF THE SOIL.

BY PRO AND CON.

Mr. Editor:

"Every one to his taste," is a trite old saying, and I have no doubt a very true one; and it suggests itself particularly to me just now, when taking up my pen to write you a few hints that occur to me about the subject named at the head of this chapter. I notice that many of your correspondents congratulate you that *this* subject has been brought up, and *that* subject has been explained; but to me there have been few articles in any paper I ever read, that gave me more pleasure than one on "Trenching Ground," and another on "Surface Manuring," in some recent numbers of your journal; because I think that by getting at the soil question properly, we come to the *bottom*—the *root* of all improved culture.

Now, sir, it seems to me that in the discussion of this question, most practical men forget that there are two distinct objects to be aimed at. The first is, that in working soil we are to render it fit to retain the greatest amount of heat and moisture that will benefit the plants, and no more; and the second is that we should convey into the soil such elements, in the shape of manures, as will most effectually perfect the growth of the plants.

A soil may contain all the fertilizing ingredients desirable,—all the carbon and nitrogen,—all the *sodium*, *potassium*, and what other *iums* go to make up the vocabulary of a chemist's treatise on the perfection of soils; but if it have not the capacity to retain heat and moisture in due proportion,—if it dry up the first hot June day, or remain cold and swampy when other soils permit their tenants to bask in the warmth of a few spring days' suns,—it is altogether imperfect.

Then, again, it may be perfect in this respect. It may be deep, and its particles finely disintegrated, and its capacity to retain heat and moisture so admirably balanced, that the most enthusiastic trencher could wish no more; and for all this, in the chief elements that constitute a fertile soil, it may be as poor as a miserable bit of humanity who has no friends; and what under the sun can be poorer?

We find great difference of opinion to exist amongst men equally famed for their practical knowledge. One manures on the surface, and finds great benefit from the application, and then, perhaps, he goes further, and deprecates all those modes of practice which buries the manure far below the surface; another digs it deeply into the soil, and in the result obtains his every anticipation.

Looking at manures as fertilizing ingredients, the one who employs them at the surface, evidently has the best of the argument. The roots, properly so called, and which penetrate deeply into the soil, do not do much towards supplying the plant with nutriment,—it is the fibres which are attached to the roots, or rather their points, or *spongiolets*, as the physiologist terms them, which collect the feeding matter. The roots are the drones, and the fibres are the working bees of the vegetable hive. Now, the fibres are invariably found in the greatest abundance near the surface, and there, as a necessary corollary, is the place to furnish the necessary food.

But the roots, if they do not do much towards taking in substantial food, at least absorb an incredible degree of moisture, and the man who mixes his manure deeply in the soil, does a great deal towards increasing the power of the soil to retain moisture. All the vegetable matter he mixes in beneath the surface assumes a sponge-like character, with the same absorbing property, which, as also like a sponge, it gives off to whatever surrounds it that may become dryer than itself. Let not, therefore, him who sees his neighbor mixing long strawy manure a foot or more below the surface, say in his heart, "Oh! fool!" or him who espies the other raking at the surface, exclaim, "Thou jackass!" but let each of them watch the process in either instance, and mark the result.

With regard to trenching, Mr. Editor, I could never see what benefit was to arise from throwing good surface-soil two or three feet below the surface, when the utmost expected of the poor subsoil brought up was that it should be ultimately made as good as the soil originally thrown below. It always seemed to me something of the robbing the hen to fat the goose kind of a system, by which something was made on twelve, but as much lost on the dozen. But if by trenching is meant deepening a soil, and making it, by mixing vegetable matter with the subsoil, to retain heat and moisture in all weathers, why then I am with you, heart and soul,

"And here's a hand, my trusty fiere,
And gie's a hand o'thine."

If you do not receive the assent of all practitioners, you will at least have that pleasure from one who likes to look at things PRO AND CON.

PRUNING EVERGREENS.

BY MR. TH. HARRIS, WEST NEEDHAM, MASS.

Usually in a nursery of White Pines, (or, in fact, any other evergreens,) may be found trees of a compact habit of growth, and some inclined to grow into various fantastic shapes, occasioned, perhaps, by the loss of a leader, or by having been deprived of side-shoots in their earlier stages of growth. Such trees are selected, and by the judicious application of the shears, are brought into such forms as fancy may dictate.

The representation in Mr. Sargent's new work, of the White Pine trimmed in successive tiers, is merely a work of time, and is done by allowing the leader to grow to the height required, always being careful to retain every side-shoot, so that each tier may present as compact an appearance as possible.

The trimming season does not differ materially from that usually adopted by any one possessed of an evergreen hedge; (I would here suggest that the White Pine makes excellent hedges treated in the same way as the Arborvitæ;) but your numerous readers would like, perhaps, to know the season adopted by us.

In June we take a tree such as I have described, and with a sharp pair of shears cut into the growth of the previous year. Immediately after this severe laceration, or as soon as the tree has recovered from the shock, innumerable small shoots will make their appearance. These are allowed to grow until August, when the tree is again subjected to another infliction, not so severe as the first, but merely cutting the ends of the present season's growth. This trimming suffices for the year. The succeeding years the same course is to be pursued; and if done with caution, trees will be obtained of rare beauty, peculiarly gratifying to every lover of nature and art combined.

Respectfully yours, &c., TH. HARRIS,
Gardener to H. H. Hunnewell.

WEST NEEDHAM, Mass., May 17th, 1859.

[THE subject of pruning evergreens is one of much interest to our readers. Mr. Hunnewell's grounds are famous for the perfection to which the art is practised there. We are much indebted to Mr. Harris for his valuable contribution.—ED.]

A FRUIT LADDER.

BY N. B. BRASIER.

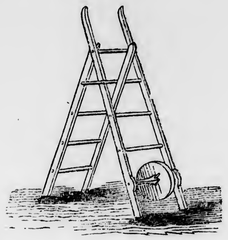
Editor Gardener's Monthly:

In an early number of your journal you were pleased to consider a few rough notes I sent you, on some experiments on Carrots made in Paris, as of enough interest to insert in your paper. I was pleased that you should think the account useful, and am by it emboldened to send you a further account of a fruit ladder common in some parts of France, but which I do not think is common here. Of this, however, you will better know. If not common, it may interest your readers. I send you the cuts which illustrate an article contributed by M. Dubreuil to a French magazine, and from which I also do take the description which accompanies them. M. Dubreuil is, I think, considered of some authority in France, in matters pertaining to fruit affairs.

The contrivance combines four distinct characters:

1st. It forms a step-ladder, where it is desirable to ascend into trees without breaking the branches; or, in short, wherever it is desirable to ascend, without resting the ladder against the object of ascent.

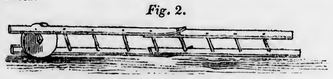
Fig. 1.



The cut will readily explain how this is made.—The largest half is about six feet long; the other about five. It is made quite light, but strong. The foot rail at the junction, is made longer than the others for the purpose which will appear in the

2nd form, which is a ladder of the common character.

Fig. 2.



Here it will be seen that where it is desired to have a ladder of twelve feet in length, it is opened and set against the wall or tree, and the long and projecting foot rail (above noticed) acts as a bolt to admit of its being used for this purpose.

3rd. It forms a wheelbarrow, by which baskets of fruit, collecting sheets, or even bags of leaves, grass, or any light substance, may be carried away at the same time as it may be necessary to move the ladder.

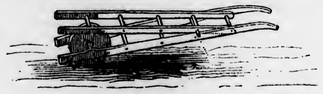


Fig. 3.

The diminished sides afford good handles; the projecting rail forms a support for what is, while in use, the body of the wheelbarrow.

4th. It forms a water-carrier. The foot rail that the one swings on the other by in the double ladder is now taken away, being made moveable for this purpose, and nothing but a truck frame remains, with wheels and handles all in order. A large, light-made bucket, with handle and eye like a well-bucket, is then filled with water and attached with a pot-hook to the foot rail, and can then be easily carried over the place. A boy can carry with ease, this way, as much as a strong man can with difficulty by the usual way. The natural tendency of water being to find its level, it does not dash out as I have often seen it do when a barrel is put in a common wheelbarrow for water carrying purposes.

[WE are very much obliged to Mr Brasier for bringing this application of the ladder principle to our notice. We are generally opposed to those "gimcrack" affairs, with which it is sometimes proposed to do every kind of work with the one machine. They are usually clumsy, expensive and liable to get out of order. This fruit ladder has certainly enough good points to make it well worthy of our attention. We willingly introduce the illustration, and are sure our readers will be pleased if Mr. Brasier will turn over the leaves of his note-book oftener.—ED.]

WORKS OF ROBERT BROWN.—The Royal Society in London is going to publish two volumes of posthumous writings of Robert Brown. They will be edited by his friend, J. J. Bennett.—*Bot. Zeitung.*

THE DRAG HOE.

BY M., CHESTER COUNTY, PA.

Mr. Editor:

I cannot sufficiently thank you for your description and recommendation of this very useful instrument. I have had it in use now about two months, and I am satisfied that it has saved me the wages of one man. The first one I got was made by a blacksmith, and was unnecessarily heavy. My second attempt was more successful. The tines are not more than two-thirds of the thickness of an ordinary short-handled manure-fork, and made very much like one, only that near the junction of the tines with the handle they are bent to form a right-angle. My vegetable garden is gone over every week or ten days, choosing always dry sunny days, so that the sun will kill the young weeds. I find the best way of using it is to commence at one end of a row and insert the teeth about two inches in the ground, and then draw it after you, without taking it out of the ground, until you reach the end of the row; then commence again, and so on. A man can draw it as fast as he can walk backwards.

Allow me again to thank you for the information. It has already, I think, saved me more than ten years' subscription to your excellent paper.

I am very truly yours, M.

CHESTER Co., Pa., June 5th, 1859.

[WE are glad to hear of your improvement on our idea, and are pleased to receive your approbation of the *Monthly's* usefulness.—ED.]

NOTICE OF THE SPRING EXHIBITION OF THE CINCINNATI HORTICULTURAL SOCIETY.

BY E. J. HOOPER, SECRETARY.

The Spring Fair and Strawberry Festival of this Society was held in one of the large stores in Pike's Opera building, beginning on Tuesday, the 31st of May, and closing on Friday evening, the 3rd of June. The room was 185 feet long by 35 broad. Towards the rear of the apartment was erected a handsome fountain, surrounded by a sloping bank of fine turf, with clumps of rare and beautiful plants interspersed around. In the back-ground and part of the sides were planted choice evergreens and shrubs, and amongst them two large and perfectly symmetrical specimens of the unequalled Norfolk Island Pine. On either side of the entrance were graceful Curvilinear beds of the finest and best-grown plants in flower, contributed by the most eminent professional and amateur florists in the neighborhood of our city. These raised beds, bordered with sloping belts of vividly green velvet turf, presented a most natural and truly gorgeous appearance.

Our florists vied with one another in producing and exhibiting the choicest and most artistically-trained varieties of the Verbena, Fuchsias, Calceolaria, Pelargonium, Geranium, Phlox, Pansy, &c. And it has been acknowledged by visitors, time and time again, that our florists are not surpassed in the perfect growth of specimens of plants, flowers and ever greens, in any other part of the world.

Passing on towards the middle of the hall, against the walls, were placed long tables on either side, on one of which were shown the most select representations of the fruits of the season, and on the other the choicest products of Flora, in plants of great beauty in pots, splendidly formed bouquets, and quantities of the richest cut flowers. Menter's celebrated band of cornet and stringed instruments, furnished the sweetest sounds, and discoursed the most delightful music, to add to the enchantment of the occasion.

Strawberries of the largest size and of the finest flavor, of the different varieties, and for the abundance and quality of which this locality has been long celebrated, were supplied to the visitors, with the additional common accompaniment of cream, with or without ice.

The long-continued and very heavily drenching rains in the first part of the season, together with some severe frosts, and afterwards the other extreme of very dry and baking weather, rendered the supply of our early fruits somewhat meagre; but the comparatively few specimens of some of the old, and of several of the newer kinds were about, or nearly, as good as formerly. The Cherries, in general, were dwarfed by the rapid and sudden extremes, at different times, of both wet and dry weather, as well as by both cold and heat. Of Strawberries about four or five kinds were as large and as luscious in flavor as formerly, particularly the Hovey and Longworth's Prolific,—the Hovey, especially, being all that this at present unsurpassed variety embraces in size, color, form and flavor, receiving the first premium; and the latter (the Prolific) newer, but considered by many here to advance nearer to the Hovey in the union of qualities for general cultivation than any other, ripening about the same time. Wilson's great Albany not yet having been long or sufficiently tested, to have a certain and decidedly sure judgment pronounced upon its merits. There were not quite such fine specimens of McAvoy's Superior presented as on former occasions. This highly-flavored large berry is, however, rather advancing in public favor for market, as well as family use. Both Wilson's Albany and the Hooker promise well here, particularly the former. Elizabeth is a beautiful fine-flavored fruit.

Upon the whole, this has been by far the best of our Spring Fairs; indeed, we had never before attempted one on the same large scale as to room and other accompaniments. Nothing human is perfect, of course, but we may safely say, that although, as it was anticipated, it was not a financial triumph, still it may be considered a success in all other most valuable and important features, and as far as we can learn, has given universal general satisfaction to the public,—has gained more friends for the Society, and helped to advance the beneficial effects of the deserved highly esteemed pursuit—horticulture.

[UNDER the head of "Horticultural Societies" will be found the detailed account of the exhibition.—ED.]

BOIS DE BOULOGNE.

BY T. W. E., PHILADELPHIA.

Any one who has not visited Paris for five or six years, would scarcely recognize the beautiful park which is now the pride of the Parisians. *Then* it was in a state of nature, with scarcely any embellishment, not even walks or drives. *Now* it is, as if by magic, transformed into a highly kept park and pleasure-ground in the English landscape style, forming a most delightful contrast to the cold, gloomy and formal grounds at Versailles.

It contains now upwards of eighteen hundred and fifty acres of land, with more than sixty miles of carriage drive and walks already made, and which are yearly added to.

When Paris was occupied by the allied army in 1815, the Russian and English armies encamped in the park and cut down an immense number of the finest trees for fire-wood and to construct their barracks with. Since that time, until five years since, it was nothing more than a wild and neglected young forest. But the scene was soon changed.

Engineers, architects, surveyors, gardeners and excavators were employed. Paths and drives were opened; grass was sown; flowers, shrubs and large trees planted; lakes dug; streams of water introduced; grottoes constructed; islands formed, and cascades and rock-work built. A Jardin d'Hiver is also about to be added to its other attractions. In short, it is already a most beautiful pleasure-ground, with every year adding to its charms.

Oh! that our City Fathers could be prevailed on to imitate this example and vote the requisite sum for completing Fairmount Park. With a most insignificant expenditure, it could be made one of the most beautiful spots in the world. Nature has done so much that little is left for art. Do, Mr. Editor give our sluggish "Fathers" a little of the spur.

Yours respectfully, T. W. E.

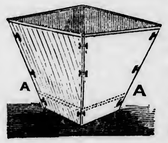
[WE would do so willingly if we thought it would have any effect, but we almost despair of success.—ED.]

SLATE FOR TREE TUBS.

BY H., BETHLEHEM, PA.

Mr. Editor:

Dear Sir—I am surprised that slate is not more used in this country for tree-boxes or tubs. In Europe, and particularly in Great Britain, it is much used for that purpose. I think if some of the slate manufacturers would turn their attention to it, they would find it to pay well. It can be used for several other horticultural purposes, such as the stages and walks of greenhouses, edgings of flow er-beds, &c. A very simple way of making a flower-pot of slate is to cut four ordinary roofing-slates into the shape of the *lower* part of a letter A, or the letter V with the point taken off; then place them together in the form of a square, so as to form a box. They are secured together by copper wire passed through holes drilled into the slate. A small square piece of slate is used for the bottom, which is put in on the inside and the pressure of dirt keeps it in its place. Any slater can make one in a few minutes. The inclosed sketch will give you a better idea of it. A represents the bottom in the inside of the box.



Yours respectfully, H.

CULTURE OF THE TOMATO.

BY A MARKET GARDENER.

Editor of Gardener's Monthly:

I find in your number for May, a communication signed "Blue Apron," in regard to the cultivation of the Tomato, which is, I think, only one of the "two sides of a story." I may not have as extensive experience in Tomato culture as your correspondent, but I cultivate from five to seven thousand plants annually, and have found that the system recommended by "Blue Apron" is injurious to the Tomato in all stages of its growth. One year, in particular, my plants were likely to become too large before planting season, and I pinched them all back. The result was, that instead of having my plants well proportioned, with a good strong leading shoot, (near to the top of which the first fruit always sets,) the lateral branches all became leaders, and I had a mass of leaves and branches, to the seclusion of that circulation of air in the bed which is necessary to harden the plants for out-door transplanting.

I will leave the columns of your useful periodical to information of more importance to your readers, but will add, that when my plants attain the height of six or eight inches, keep them uncovered, except in very cold weather. By this method I save the trouble of "*propping up the sashes*," and instead of my plants being "*tall, lank* and *top-heavy*," they are generally bushy and hardy, retaining their first fruit, which is very important to

A MARKET GARDENER.

PITTSBURG, May 27th, 1859.

[BOTH of our correspondents we know to be men of extensive experience in Tomato-growing. We may well exclaim, "Who shall decide when doctors disagree?" We shall be glad of the further experience of cultivators.—ED.]

SMITHFIELD CLUB SHOW, LONDON.—Mr. Snowden exhibited Woofe's Patent Paring Plough. Worked with one horse, it cuts turf one inch thick, and in uniform lengths of 18 inches, turning them completely out.—*Lond. Mechan. Mag.*

[This strikes us as a very useful invention where large quantities of sod are needed.—ED. G. M.]

The Gardener's Monthly.

PHILADELPHIA, JULY 1, 1859.

☞ All Communications for the Editor should be addressed, "THOMAS MEEHAN, Germantown, Philadelphia," and Business Letters directed to "THE PUBLISHER OF THE GARDENER'S MONTHLY, Box 406 Philadelphia."

THE Publisher particularly requests that Advertisements should be forwarded so as to be received before the 20th of the month, or otherwise they cannot be inserted.

THE PHILOSOPHY OF TRANSPLANTING.

WHAT is the secret of successful planting? Why do some trees live, and some die under the operation? Why do they not all live? Why do any of them die?

Though comprising some of the simplest of questions, and affording as simple answers, who has ever heard a satisfactory one given? Jupiter, when he undertook to receive the complainings of the sons of men, could not be more struck with the opposite nature of their wants and wishes, than a new beginner in the planting line must be at the varying and contradictory advice he is constantly receiving.—"Don't plant in fall," "Don't plant in spring," "Prune severely," "Don't prune," "Water at planting," "Don't water;" but we may as well stop. As to reasoning on the matter, who attempts it? Some few do; but how do they do it? "Dogmatically, dictatorially and absurdly."

"I have done with getting trees from Brown. Lost three-fourths of what I got from him last year."

"Trees do best from a change of soil. Those I got from neighbor Smith's nursery all died. Those from Nebraska all lived."

"It don't do to spit on your hands while planting trees. I set out two last year; had to stop for that purpose while filling in one, and that one died; the other is doing well."

Of course, you will say the last reasoning is absurd, but it is no more so than any of the others.

Now, if we can only demonstrate why a transplanted tree dies at all, all the questions about the time and season and manner of planting may be compressed into a small paragraph. It needs no reasoning to tell us an umbrella is useful in rainy weather, or that a well-corked bottle will keep the liquid safely inside for an indefinite period, and yet these simple facts might be so confused by words, and obscured by scientific verbiage, that a score of opinions might be conscientiously entertained of them. This is the way errors arise in the idea of tree planting. We read learned disquisitions on the functions of the leaves, and their relation to the roots—of the cells and tissues, and of crude sap and sap elaborated,—and after all the terms in physiology have been exhausted to show the cause of the death of a transplanted tree, it all amounts to this matter-of-fact conclusion: that it died through being *dried up*.

Through being dried up! You may as well tell us an animal dies for want of breath. And if it does, we may not be able to give the breath, but we may give the necessary moisture to the tree. To make the matter plain, if we take up one of two trees, and leave it exposed for a few days, it dies,—it withers and shrinks away; but the other lives on as ever. Evaporation is continually going on from the branches of trees. In the exposed tree the roots are prevented from supplying the waste; in the other they maintain the balance; so that the one dies and the other lives.

Shall we now say that every case of death from transplanting is only a modification of this simple process? Indeed, it is from no other cause. The tree has *dried up*.

It is a remarkable circumstance that our physiological writers have nearly, we may say quite, overlooked this matter of evaporation. Only a few days ago, we read a very learned disquisition, showing that trees should never be pruned at transplanting, because the speedy production of roots was a great object; and as the elaborated sap in the branches was the matter from which roots were formed, why the more branches the better for the roots. All true enough, my good friend, if you could prevent the moisture from drying out in the mean time; but there's the rub,—the more surface the more waste.

A few days ago, one-half of a large worm was thrown into the writer's aquarium, as food for the fish; the other half was forgotten, and left in the open air. A few hours after, and this half was entirely dead—dried up. The half in the water-tank had managed to get beneath a rock, safe from the watering mouths of the pikes and tadpoles, and twenty-four hours after, it was still there, as lively as ever. "That is the idea again!" we exclaimed,—the check to evaporation saved its life. It could not easily dry up there; and so we carried the idea again to the tree.

Instead of laying neglected on the ground, we will say that it is actually planted. The roots are more or less mutilated,—that is a necessary result of removal,—and many not mutilated are not, even with the best care, so closely imbedded or surrounded by soil, as to be able to obtain the same amount of moisture from the earth it could before transplanting. And now immediately follows a bitter cold windy day, or a hot and dry time, when the very skies seem like brass, and all nature seems languid and debilitated; the sap is exhausted faster than the roots, so circumstanced, can supply, and just the same as in the totally neglected tree, it dies—*dries up*.

But the result is not often so palpable. No cold winds or hot days perhaps follow for a long time, but the soil is cold, and unfavorable to the production of new roots, and so the tree stays in a state of rest,—laying up no treasures, taking no thought of to-morrow,—and when the adverse time does come, its sandy foundation is discovered. It dies—*it dries up*. So we may go on through a score of illustrations. Still the same explanations, the same reasoning, the same result: it dies—*it dries up*.

From all this it follows, that to succeed in transplanting, all that is necessary is to have control of the evaporating power of the tree—to prevent, in plain language, the sap from drying out of the tree, until the roots have made new fibres, and thus able to supply whatever demands the branches may make on them for moisture.

There are, then, two periods when it is good to plant trees; one is when there is very little evaporation going on from the top of the tree; the other when the roots are active, and the fibres are pushing with freedom and vigor, and the *best time* is when we can get the two to work together. This is not easy. When the thermometer ranges between 30° and 40°, little or no evaporation is going on—the air is saturated with moisture, and a tree might be dug up, and suffered to lie for a week with its roots exposed, without experiencing material injury. Such times we often find in November and December, February and March, and at various times at other seasons. But the opposite objection arises; the ground is cold, and the roots, though not perhaps entirely dormant, are but little active. Again in the spring the roots are very active, and are ready to draw water almost as soon as the tree is transplanted; but—again that implacable *but*—the wood has become soft and spongy, and the atmosphere warm and drying, and evaporation goes on so very, *very* fast, that the advantages of the newly pushing roots is more than balanced.

In whatever way we look at the subject, this conclusion is apparent: that to be successful with tree-planting, *evaporation from the branches must be checked until the new fibres push.* Recognize this principle, and trees may be transplanted at any time of the year.

What will our readers say to the doctrine that deciduous trees can be removed more successfully in May and June than at any other season? But it is a fact. It must not be done in the usual way. The leaves have to be stripped off, and the young growth shortened-in; evaporation is arrested, and the young roots, rejoicing in their newly-found liberty, push forth in all directions, and sustain the tree at once. New buds and leaves start immediately, and the tree goes on apparently with very little check.

Over and over again have we seen, during the past few seasons, trees taken up in May and June, and in August and September, and with the most complete success.

And now, dear reader, do not think that we are offering you crude theories, that have yet to be elaborated by the pure air of practice; or that we have taken an idea from some contemporary's sensation leaders, and with the aid of a few principles stolen from some learned physiologist's deductions, turned out of the editorial machine a piece of work that is to astonish you. That is sometimes done, and the authors or manufacturers get a greater reputation for learning than the more honest fools, as Shakspeare calls them. But this idea of late spring planting is becoming very practical here. It is now understood by many of our practical planters. As we now write, (first week in June,) one of our most popular jobbing gardeners is driving by our office, with a large load of trees, which he would warrant for a small per centage, to give you more satisfaction than trees planted in March.

It is more trouble, to be sure, to prune and strip the leaves from the trees, and the whole care required to control this evaporation costs more than trees set out in the usual time and way; but to many a man, labor is better worth five dollars in April, when every thing has to be done at once, than it is in June, when nearly all is finished up.

Without making this chapter much too long, it is impossible to go into the details of this idea as we would like to do. The reader must apply the principle for himself. He must check evaporation till new roots are produced, either by syringing, or shading, or pruning, or disleafing; he must do all he can to insure a rapid formation of new fibres. He must, in fact, experiment and observe a little for himself; and when he, as he soon will be, becomes master of the idea, he may remove things at any time of the year when he has the most leisure and inclination.

ENTRANCE GATES.

"NOTHING so difficult as a beginning
In poesy, unless perhaps the end."

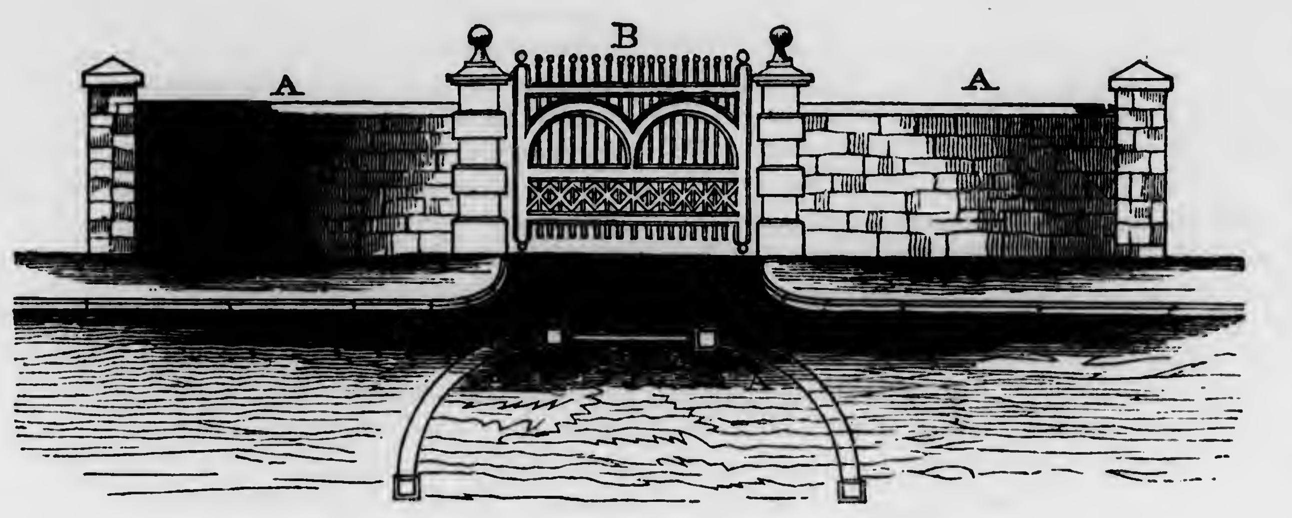
says Byron; and it is certainly as true of the efforts of the landscape-gardener.

As to the "end," we never yet saw the place that was "finished." No matter how tasteful the original design might be, that law of the universe which insists on perpetual change has full play on it, and it undergoes a perpetual round of alterations and improvements.

And with regard to the "beginning,"—which, for convenience, we will suppose is the entrance gate,—in nine cases out of ten it is an utter failure. "Nothing so difficult" to accomplish as this "beginning,"—nothing which gives more thought or less satisfaction to owner or visitor. Sometimes we have actually thought some entrances were expressly designed to be ugly,—that they were a sort of *ruse* or deception to make one's friends believe that your place was but an indifferent one, and then, by degrees, to lead them on in astonishment at the grandeur and beauty of the grounds inside. Then, on the other hand, when any attempt has been made at beauty, the chances are that it becomes a "monstrous overgrowth," and rather offends by its showy pretentiousness.

One of the happiest efforts we remember to have met with, is on the grounds of H. P. McKean, Esq., on the North Philadelphia Plank Road. Though not more than ten years, we think, since the place was first laid out, it has already obtained a very wide re-

putation for the correct taste that pervades every part of it. We have been most kindly permitted by Mr McKean to take a drawing of his gate for our paper, an engraving of which we annex.



The posts and side walls are of stone, and the gate of wood. The posts are eight feet high above the surface of the ground, and are of stone, 21 and 23½ inches square alternately, as represented. The gate is made of yellow pine, painted a very dark green.

In front of the gate we give the ground-plan of wall on each side to show the curve.

A A wall. *B* gate.

ALEXANDER VON HUMBOLDT.

THE death of this truly great man has called forth a host of biographies in the journals and periodicals. So far, however, we have not seen any thing like a satisfactory attempt to analyze the working of his mind. We want to honor his memory, and as our read-readers and ourselves will be able to do that by a true appreciation of his genius, we here extract the following graphic passages from an article in the *Augsburger Algemeine Zeitung*, one of the ablest and most influential German dailies:

"Humboldt has left us. Those eyes are closed now and for ever, which have known more of the universe, studied it closer, and comprehended it better than ever mind of man did before.

"A time will come when, from his appearance, a new period of the mind's history will be dated; for he it was who made the first attempt to comprehend the whole creation into *one* great whole, and to explain all its phenomena from positive laws. And he succeeded, too, in this gigantic work by grasping all the branches of knowledge *together*, showing them to be dependent of and supporting one another. He found a heap of building-stone scattered about. He collected that heap, and added more stone of his own. But all this is subordinate to the one great and immortal work—the structure of 'Kosmos;' *id. est.*, the universe *understood*.

"Future generations will have to fill up in it many a gap, to correct here and there, and to change many a hypothesis in it. Every work which is built up by way of inductive reasoning, and based on the knowledge of single facts, must naturally have the same fate. But as to the plan and its execution, its substance, and its larger features, there will remain but little chance for correction as long as the human mind does not change its nature. The road taken by Humboldt was the only right one, his goal the only satisfactory one. To reach this goal there was required an equally keen perception of microscopic details and of the great laws of nature, an untiring industry for collecting and studying all phenomena, as well as for examining them from *different* views, a complete saturation and clinging to facts, as well as a complete mastery and independence of them. Details dared never to override the whole—the whole never push into neglect the smallest detail.

"The great sage passed nearly ninety years in wandering through the world, observing it, investigating it, treading all its domains, the telescope and the microscope, the surface of the earth and the depth of its deepest mine. Still these ninety years have hardly sufficed for the great work of his life.

"When he had put the last finish to it, he left the scene—his work was done, accomplished, stood the task of his existence.........The motto of his great cotemporary might also have been his: 'Nature! my divinity art thou! Thee will I serve through life.' Humboldt's nature, however, included also mankind, and he has lived and worked for mankind. 'Truth,' he once said, 'is her own aim, but we value her for the sake of human kind alone.'

"Humboldt was a German, and not merely by accident, for we see in him the Germanic character in its noblest and fullest form. We mean his 'many-sidedness' in knowledge, the moral height of his soul, the depth of his heart, his ceaseless industry, and the absence of all selfishness in his purposes. He is our pride. Still we know that *nationality* is too narrow a frame for such a mind. And at the same time that we express our sorrow that this incomparable soul, too, had to obey Nature's last command, we surrender to the world our exclusive right to weep over his loss. *He has lived for all the nations of the globe—let all nations mourn him.*"

HOT WATER FOR GREEN FLY.

WE have made some experiments in order to ascertain how high the temperature of water may be, without injury to very young shoots of Roses that may be covered with green fly or aphis, when applied as a remedy. We find the insect readily killed at 120°. One plant of Paul Perras, which was plunged three times, for a second each time, into water at 135°, has a very few black spots on the tenderest of the laaves. The insects were instantly killed. Water at this temperature is, therefore, perfectly safe for any thing. As a remedy against all soft-skinned insects, we regard this as the most simple and effectual discovery ever made.

JUNE WEATHER.

THE weather on the 4th of June was very unusual. The temperature here sunk to 40°, and in many places Beans, Squashes, &c., were slightly injured by frost.

The daily papers are filled with alarming accounts. At Hirndale, N. Y., ice is said to have formed to the thickness of *one inch*. We believe, however, that on the whole, no serious damage has been sustained. The fruit crops near Philadelphia promise better than they have done for years. Even the Plum, many of our friends expect to see again bearing and ripening this season.

CROPS, FRUIT, &C.

CAMBRIDGE CITY, Ind., May 18, 1859.

THE prospects for fruit in this part of the country are not very flattering. Not more than one-half a crop, even if the season should be favorable hereafter.

T. B. M.

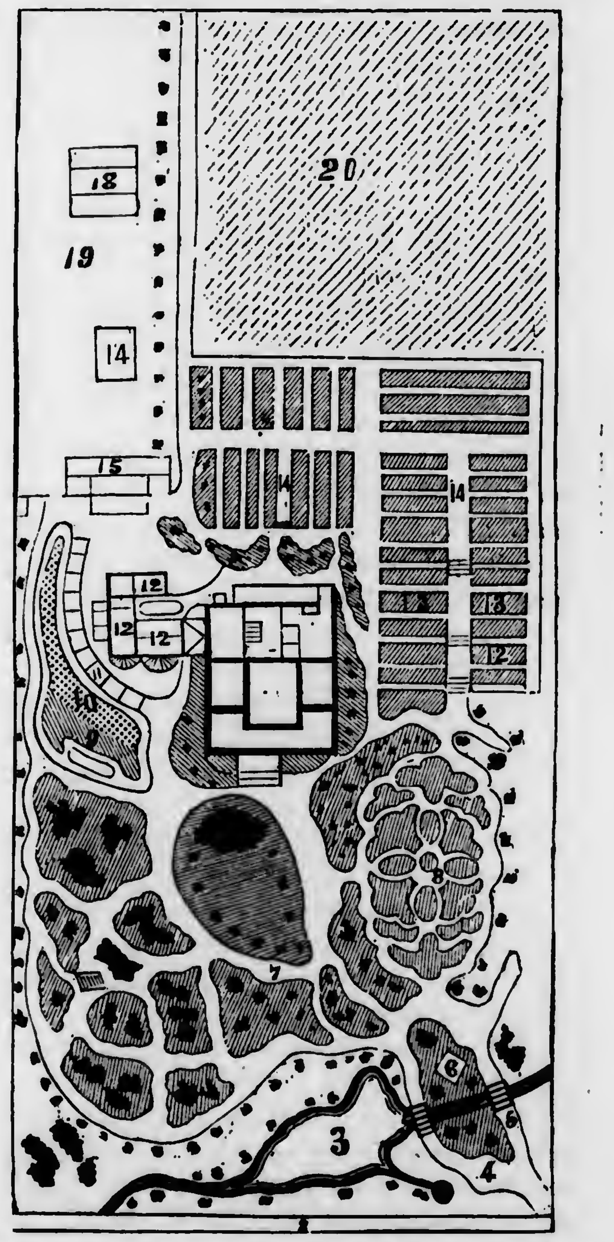
DESIGN FOR A SMALL GARDEN.

IT is impossible to point out in detail how places in general should be laid out. So much depends on circumstances. The contour of the ground, the disposition of the buildings, the taste of the owners, and many other particulars, all demand concessions to them.

But yet, for all this, many hints may be gathered from plans of other places, by which those about to improve may profit much. The main points of a pretty design may be appropriated, and by adapting them to existing exigencies, can be made models of taste and good judgment.

As occasions offer, we shall give our readers plans of places that already exist, as being better than fancy designs that too often lose all their beauty and value when transferred from the paper to the ground.

The annexed cut is the ground-plan of the country-seat of A. C. Pracht, Esq., Baltimore, Md., and contains about four acres.



The taste of the proprietor leads him to value collections of rare trees and shrubs, and hence the chief beauty of the design consists in a multiplicity of paths, which afford the best opportunity of viewing and examining the individual specimens.

Where effect is desired more than individual beauty, less walks and more masses of shrubbery to conceal the one path from the other would be desirable. We may, perhaps, take this style for our next illustration.

EXPLANATION OF PLAN.

1.—Dwelling-house.
2.—Front Street.
3.—Lake and Stream of Water.
4.—Carriage-way.
5.—Bridges (rustic).
6.—Ice-house.
7.—Specimen Trees and Shrubs.
8.—Flower Garden.
9.—Raspberries.
10.—Vineyard.
11.—Grape Arbor or Trellis.
12.—Hot and Greenhouses.
13.—Terraced Garden.
14.—Kitchen Garden.
16.— " "
15.—Gardener's House, with Tool, Wash, Wood and Coal Houses attached.
17.—Chicken House.
18.—Stabling.
19.—Poultry Yard.
20.—Fruit and Strawberries.

FONDANTE D'AUTOMNE PEAR.

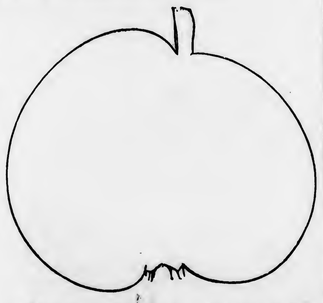
A WRITER in a contemporary magazine makes some well-timed remarks on the great confusion existing in the nomenclature of Pears. It is much to be regretted that some one with the necessary leisure does not take up the subject. It is bad enough to have to suffer by misnames amongst plants, but in the case of fruits it becomes a positive nuisance, with which it is very hard to bear.

Some few years ago a friend brought us, from Baltimore, a specimen of what he called Fondante d' Automne Pear, very different from what we had before known as such. It was a large round variety, more resembling the Beurre Sieulle than the kind generally known as the Fondante. Believing him to be in error, we dismissed the subject; but on looking over some papers in a London magazine, supposed to be contributed by Mr. Hogg,—the Downing of Great Britain,—we find the same kind of pear as our friend showed us, but a little smaller, figured as the genuine Fondante d'Automne, and our common kind described as existing, and called Fondante de Bois. We give below the article, with the cut:

"FONDANTE D'AUTOMNE PEAR.

"SYNONYMES.—*Belle lucrative; Beurre lucratif; Bergamot lucrative; Bergamotte Fievee, Sieguneur d'Esperen; Doyenne d'Automne.*

"Among the autumn pears, *Fondante d'Automne* takes rank as one of the first; but, unfortunately, in many collections the name has become associated with *Fondante de Bois*, a much inferior variety, and hence the one has frequently been taken for the other. The distinction between the two is, however, at once apparent: *Fondante Bois* being a long, yellow, pyramidal fruit; while *Fondante d'Automne* is Bergamot-shaped, and always more or less green.



"*Fruit* rather large, from two inches and a half to three inches wide, and two inches to two inches and a half high; Bergamotte-shaped.

"*Skin* at first of a bright, clear, grass green, becoming yellowish at maturity, and entirely covered with large spots of brown russet, interspersed with russety dots.

"*Eye* open, with yellowish-green downy segments placed in a slight depression, but sometimes altogether wanting.

"*Stalk* short and thick, from half an inch to three-quarters long, frequently fleshy and wrinkled.

"*Flesh* white, greenish at the margin, buttery, melting, and very juicy. Juice sugary, very rich, and with a slight and pleasant musky flavor.

"A delicious autumn pear; ripe at the end of September, and continuing in use for about three weeks.

"The tree is of a nice, close, compact, pyramidal habit of growth, and well suited for garden culture, grafted on the quince stock, and upon which stock it succeeds well. It is a very excellent bearer, even in its young state, and is not particularly fastidious as to the soil in which it is grown.

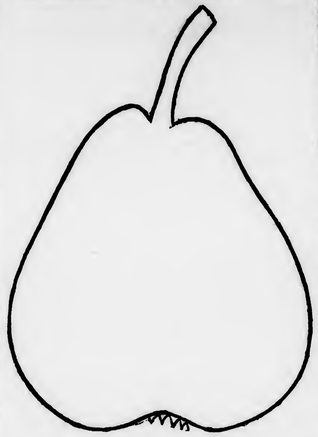
"This excellent pear was raised about thirty years ago by the late Major Esperen, of Malines, and was among the first results of his endeavors after the raising of new fruits. Like many other good varieties, it has a varied nomenclature; but its original name is *Seigneur d'Esperen*, and the original tree is still growing in the garden at Malines.

"Our figure was taken from fruit grown by Mr. Rivers, of Sawbridgeworth."

In order that our readers may make their own comparison, we give the cut and description of our variety from Downing, entire:

"FONDANTE D'AUTOMNE. Thomp.

"Belle Lucrative. Fondante d'Automne. Seigneur d'Esperin, *originally*. Bergamotte Fievee.



"If we were asked which are the two *highest-flavored* pears known in this country, we should not hesitate to name the Seckel, and the Fondante d'Automne, (*Autumn melting*). It is a new Flemish pear, and no garden should be destitute of it. The tree is of moderate growth, the young shoots long, yellowish-gray.

"Fruit medium size, obvate, narrow, but blunt at the stalk. Skin pale yellowish-green, slightly russeted. Stalk little more than an inch long, stout, often fleshy, obliquely inserted in a slight, irregular cavity. Calyx very short, open, with few divisions, set in a basin of moderate depth. Flesh exceedingly juicy, melting, sugary, rich and delicious. Last of September."

Mr. Downing quotes Thompson, an English authority, for the accuracy of his description; and as it is seventeen years since the work Downing quoted from appeared, it is very surprising that the error, if it actually is one, has never before been pointed out.

We suppose the tree Thompson described his fruit from, in the garden of the Horticultural Society of London, is still in existence; and our friends across the water ought to be able to trace out the origin of the error. We usually place considerable reliance on their nomenclature, but a few such instances will injure their credit.

RHUBARB CHAMPAGNE.

WE are indebted to a friend in Cincinnati for an opportunity of tasting the celebrated Champagne Wine manufactured by Mr. J. Eshelby, of Cincinnati, from the ordinary Rhubarb or Pie-plant.

In taste and flavor it closely resembles Sparkling Catawba, except that it leaves a slightly bitter and astringent taste in the mouth, which prevents its being insipid. It is very clear and beautiful, and put up in precisely the same style as the best French Champagnes. We understand from our friend, who is entirely disinterested, that it commands a ready sale at nearly the same rates as the Sparkling Catawba.

THINGS AROUND PHILADELPHIA.

WE once knew a man who was a great reader, and who was perpetually wishing to see some of the famous countries and beautiful scenery he was constantly reading about. And yet, notwithstanding his often-professed love for the grand and beautiful in nature, and his desire to see all that was worth seeing in that line, he lived for twenty years within ten miles of the most perfect specimens of nature's uncultivated handiwork it was possible for the eye of man to rest upon. It is common for us all to rush from the joys we have, to seek the pleasures we wot not of.

Thus thought we lately, after reading of and noting various things for the past six months, through various parts of the States, and for a change, we thought we would look about us and see what new ideas we could pick up for our readers' benefit, near our own home. So we took our pencil and memorandum-book, and ten yards from our own entrance found us within the grounds of

G. W. CARPENTER, Esq., Germantown. This magnificent place occupies about one hundred acres, and is laid out in drives and walks, and has its lakes and greenhouses and other adjuncts of an old English establishment, to an extent that would astonish even some of the most renowned of them. One of the drives alone extends over three miles. Many hundred feet of glass already exist, and another house for fruit culture was in course of erection. One of the prettiest features of the place is the great number of large tubs of curious and rare plants dispersed over the place during the summer, and for which one of the immense greenhouses is employed in the winter for protecting them. Very many of these plants are not only celebrated for their enormous size, but in some instances are the only specimens of the kind in the United States. The Sago Palm, with its tub, weighs probably a ton, and the Date Palm, Sabal Palm, and many similar kinds, very little less. Diosmas, Eucalyptus, Eugenias, gums, and such like Australian plants abound, and it requires no stretch of the imagination for the visitor to forget that he is in the United States. And, speaking of visitors, we must not forget to add, that with a liberality unfortunately too uncommon, Mr. Carpenter allows full permission to any and all to visit his beautiful place at all times. It must be a source of great pleasure to the worthy proprietor to see the many score of the poor and gardenless who throng throughout his grounds every Sunday afternoon, to enjoy the pure contemplation of natural beauties his generous wealth has provided for them, and which, from the necessities of labor, at other times they would otherwise be deprived of. Though so near a large city like Philadelphia, the depredations of the thoughtless are wonderfully slight.

Half an hour's walk from this place brings us to the establishment of

MR. W. SAUNDERS, Johnson Street, Germantown, well known as a Landscape-gardener, and for his enthusiasm in the culture of the Grape. Mr. Saunders has three houses devoted to this purpose, all built on the fixed roof principle—that is, without moveable sashes. This, though a very old idea,—being fully described in Loudon's works,—seems to have slumbered, till awakened in England by Rivers, and, we think, by Mr. Saunders in this country. The first article we ever saw on the subject in American periodicals was from his pen; and it must be a source of much pleasure to him to see with what enthusiasm these houses are now being run up in every direction. Mr. Saunders has three houses, all of them of this description. One of them—a large span-roofed structure—is a little different from others we have seen. Instead of every sash here being all of equal size, as is usually the case, four of them are made of 3 x 4 scantling, and the balance are only of 1½ inch depth; and, as 10x12 glass is used in glazing, the house has altogether a very light appearance. There are five of these small bars to every large one, and several purlines are run horizontally along their whole

length, which prevents any one of them that may be formed of defective wood, from sinking, which is one of the objections usually found in fixed-roof houses. There were six rows of vines planted out in this house. In one of the smaller houses we noted a very good arrangement for warming the water for winter use in the vinery. A tank is formed of brick and cement round about the furnace. Into this rain from the roof is conducted. When the tank is full, the overflow is led into a cistern constructed beneath the floor. The grapes are mostly grown in pots, and the pots partially plunged in enriching material, into which the roots penetrate through the bottom of the pots. At this time (June 6th) the vines were heavily laden with fine fruit, which, we were informed, were selling at $1 per pound.

The next place we may notice is that of

CHARLES HENRY FISHER, Esq., at Olney. This is one of our celebrated places—for the beauty of the site, and the great taste and beauty with which the grounds have been designed and laid out, are not, perhaps, excelled near this city. Undulations, descents and acclivities follow each other in rapid succession, and yet not with a trifling littleness, but with a grandeur and boldness that would do no discredit to a tract of a thousand acres. Our visit was hurried, and we forgot to note the size of the park and pleasure-ground, but we imagine it to contain about eighty acres. Of the numerous matters that interested us here, none pleased us more than one of the vineries. This was a curvilinear structure about 50 feet long, and the grapes inside we have never seen excelled. From the top of the house to the bottom, the foliage was perfect. Each leaf was of a very large size—the topmost ones no larger than the lowest; and, as a consequence, the bunches of fruit as equally fine and abundant close to the ground as at the top of the house. The Cannon Hall Muscat, usually a very shy kind to set well, here seemed to develope every berry. Mr. Divine, the gardener, thinks that the failure to set this kind is oftener from keeping the house dry, than from any other cause. He syringes freely, both when they are in flower and out. The syringe is never at rest.

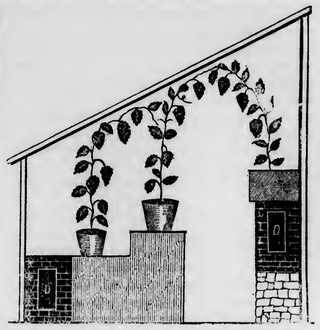
In this house is a set of hot-water pipes. They are seldom used, except when a cold spell of weather ensues after the vines have broken in spring. Through some neglect some years ago, the water was not drawn out before winter, and so the frost burst the pipes. A fixer-up of apparatus was sent for, and concluded that the only thing to be done was to take down the whole affair and put in new pipe, involving, of course, a large expense. Previous, however, Mr. Divine had some wrought-iron bands made, with a bolt and nut. Red lead was worked into the fissures, the bands placed around in two or three places in each length of pipe, and tightly drawn together by the screws, with a wrench, and the experiment, at the cost of two dollars, was entirely successful. In the fruit-garden were two large beds of strawberries—one of Albany and the other of Hovey's Seedlings. They both had enormous crops—the Albany having evidently, being a hermaphrodite, helped the Hovey to set well. It was a very even race. Hovey was the best colored and the best flavored, and the Albany a few days the earliest and a very little the best bearer. In one part of the place we noted a rustic summer-house, covered with thatch. This had not been put on in any very scientific manner; but it had been on some years, and for coolness and comfort, evidently could not be surpassed.

Near to this is the residence of

HARRY INGERSOL, Eaq., and as we had before noted the successful cultivation of the Rhododendron here, we made a hurried call, in the hope of seeing them in bloom, and we were more than abundantly rewarded. They were just in their glory, and we do not think that a more perfect bed of Rhododendrons could be found in the United States. That the experiment of growing Rhododendrons in our country is successful, none can now doubt. These have been planted five years. Many of them had fifty heads of flowers,—and such heads! many of them over six inches in diameter. What makes the success the more pleasing is, that it is not merely the common R. maximum or R. Catawbiense that is grown, but the numerous forms of the hybrid varieties which are supposed to be still more hard to succeed with. The main point of success, as we have stated in a former number, is to keep the soil cool and moist, by digging it up deeply and mixing with it sufficient vegetable matter to always keep it moist and porous.

On the north side of Philadelphia, we found ourself at the nursery of

MR. DAVID FERGUSSON, Laurel Hill. Mr. Fergusson is one of the earliest advocates of growing grape vines in pots in this region, and the great "rage" for this species of fruit culture which now prevails everywhere, must be particularly gratifying to him. We found one large house completely filled with healthy vines in twelve and fourteen-inch pots, making their growth for fruiting next season. In another house we found an enormous crop, which we think has never been equalled anywhere in the same space and at the same cost. The building was but 32 by 11 feet, costing in its erection $125. It contained eighty vines, and from an estimate we made, bore at least 300 pounds of grapes. One row of plants had been turned out of the pots into a rough wooden box against the back wall and were trained over the pathway, meeting those in pots from the other side, and forming an archway through the house, of great beauty, and, as a lover of good fruit, we cannot help adding, of great interest. The following very rough sketch we make from memory; but it will serve to convey some impression of the arrangement and appearance of the house and vines. Fruiting in this house, with others, was the Golden Hamburg, which promises to be very valuable on account of its color. The flavor was excellent, but not quite equal to Hamburgs grown in the same house. In the grounds is a noble specimen of the Purple-leaved Beech, well worthy of a journey to see from any lover of fine trees. In the nursery ground we also noted specimens of the variegated White Cedar, a scarce, but very desirable, evergreen. Mr. Fergusson is well known for his enthusiasm in favor of the Golden Arbor Vitæ, *Thuja aurea*, and there were many fine specimens of this beautiful plant. We also noticed the Purple-leaved Hazel and Variegated Philadelphus, as two very beautiful-foliaged hardy shrubs, that cannot too soon become common. Some fine specimens of the Pampas Grass, variegated reed, variegated Sweet Alyssum, and other varieties, also afforded us much gratification.



We must break off our notes here; but we have many more of other places on hand yet that we think will interest our readers, and we will return to them at an early opportunity.

FILLMORE STRAWBERRY.

EARLY in the month we received from Messrs. Samuel Feast & Sons, of Baltimore, specimens of their Seedling Strawberry "Fillmore." The fruit was of so excellent a flavor, and the berry, in other respects, so superior, that we had the annexed engraving made of one of the average-sized specimens.

In reply to our further enquiries, Messrs. Feast sends us the following:

"BALTIMORE, June 15th, 1859.

"DEAR SIR—Yours of the 9th came to hand. The Fillmore Strawberry is a hermaphrodite, having a circle of stamens around the base. In 1852 we raised several thousand seedlings, out of which, after the first year of bearing, we selected sixty-three varieties considered good. These were planted six feet apart, expressly to test their qualities. One proved to be superior, which we named, in 1855, Fillmore. The last two seasons we have planted them promiscuously between the beds of all the best varieties we had in cultivation. It has proved as far superior to all, as the Hovey is to the old Scarlet. The habit of the plant is robust; leaf, rough, large, round, and very dark green; foot-stalk of the fruit large and erect; a prolific bearer, every berry perfect, dark rich crimson color, and fine flavor. The berries sent you were of their average size. Yours truly, SAMUEL FEAST & SONS."

CULTURE OF THE GRAPE VINE IN POTS.

One of the most successful cultivators of the Grape vine in pots in the vicinity of Philadelphia, is Mr. Willim Bright, of the Logan Nursery, whose instructive articles on horticultural topics have frequently appeared in the columns of our *Monthly*. We have lately seen some specimens of pot vines, from Mr. Bright's vinery, loaded with ripe fruit, which we think can scarcely be surpassed in perfection of foliage, abundance of fruit, richness of color, and all other desirable points, by any possible care and skill.

In order that our readers may form some idea of the perfection pot-culture of the vine may be brought to, we give an engraving of one of Mr. Bright's pot vines, a Black Hamburg, two years old, only twenty-seven inches high, fruited in a eleven-inch pot, bearing seven large bunches of grapes, estimated to weigh four or five pounds, with broad leaves of "living green" without spot or blemish, and cone-like clusters of fruit of the most perfect bloom and richest color.

This engraving is from an ambrotype we have had executed at the Rehn Gallery of Photography, by Messrs. Vansciver & Odiorne, Philadelphia, talented and skilful artists, who, by a newly-discovered process, have brought the art to a highly interesting and useful point to the horticulturist.

Mr. Bright has some new and original views of grape culture, especially of what he styles the "Dwarf Culture of the Grape Vine in Pots," particularly in relation to fertilizing, "stopping" or dwarfing, which he proposes to embody in a little Hand-book, soon to be issued from the press; and judging from his eminent success in growing pot-vines, and from what we know of his system, we anticipate that this publication will make a valuable addition to our horticultural literature.

We have been kindly permitted to copy from his forthcoming work his remarks on the uses and pleasures of Pot Vine Culture, which we think our readers will find to excite an appetite for what is soon to follow from the same pen.

DWARF CULTURE OF THE GRAPE VINE IN POTS.

BY WILLIAM BRIGHT, PHILADELPHIA.

The art of growing and fruiting the Grape Vine in Pots forms one of the most interesting, elegant and profitable branches of modern horticulture. When well understood, the culture of the vine in this way will be found to be as simple and as easy as in the border, and even better suited to the circumstances and wants of numerous amateurs and gardeners.

Anybody who has a small forcing-house, may produce the best foreign grapes in pots in perfection, without the costly preparations of the vinery, and with very little trouble. If the grape, when fruited, is an elegant object in the vinery, it is much more so in the pot; and when managed with skill, the mass of splendid fruit, which a single cane less than three feet in height, is capable of producing, cannot fail to excite the admiration of every beholder.

A great many persons, who have small greenhouses, would like to raise grapes. To such, pot-culture offers peculiar advantages. The work of growing the vines can be easily and cheaply done by themselves or their gardeners, and the plants got ready in any number, (as will be hereafter described,) and brought forward, say a dozen or two at a time, without interfering with the other plants, and fruited as soon as in a regular hot-house, and in great abundance and perfection.

For early forcing, the pot vine is exceedingly convenient. The owner of a vinery may desire a few early grapes, but it may be impossible or undesirable to heat the borders early in the season, and go into general forcing. In such cases, with the control easily exercised over the pot vines, we may start them in the hothouse in the month of March, and after the fruit is set, ripen in the cold vinery, and cut the fruit in June or July.

There is great economy of space in pot-culture, which commends it especially to persons who have hothouses of limited extent. Five hundred square feet of glass will ripen about 250 pounds of grapes, in a common house, with border-culture. In pots, 500 pounds, at least, may be obtained under the same surface of glass, and the period of ripening may be more easily hastened or retarded; thus in a single house, greatly extending the fruit season.

Grapes in pots may also be kept for three or four months, upon the vines, after they are ripened, by removing the pots to a cool, dry, airy room—even in the parlor—thus presenting all the merit of a beautiful house plant, as an object of interest, as well as a delicious source of gratification to the palate. West's St. Peter's, Muscat, and several other late grapes, ripened in pots on the 1st of October, will keep on the vines, in a cool, dry, airy room, till the 1st of February or March.

As an ornament to the dinner-table, or for decorating a room for evening parties, there is no production of the hothouse more truly magnificent, in all respects, than a pot vine fully and properly developed, bearing six or seven bunches of the finest grapes, as they may be grown by proper dwarf culture, such as we shall describe in this work.

The early fruiting of dwarf pot vines is another advantage greatly in their favor, as compared with common vines. Vines are so easily produced in pots, that it is a matter of little consideration if you fruit them early, at the expense of the existence of the vine, while in the border you would be more careful to create a strong cane before permitting it to fruit. Vines may be struck from the eye, and forced into perfect and abundant fruiting in eighteen months.—You may strike vines from the eye in March, and fruit them in pots the second season, moderately, without serious injury to the vine.

Properly and moderately fruited, the pot vine is not destroyed, as many persons suppose, in one or two seasons, but may be shifted from small to larger pots, root-pruned, and again placed in smaller pots, for years, the proper nutriment for growing wood and perfecting fruit being added to the soil at each change of pots, and given in solution while bearing. A much greater *variety* of grapes may be grown together in pots in the same house, than by the common method in borders. When the roots of vines run together, it is well-known that the strong-growing sorts are apt to injure and drive out the weaker kinds, as, for instance, the strong-growing White Nice, Syrian, or Buel, planted in a border by the side of the Black Prince, or the Dutch Sweet Water, will so seriously check the growth of the latter, that perfect fruiting is almost impossible. With vines in pots no such accidents can happen. Each plant is perfectly independent of the other, and may be placed side by side without injury.

It will be here understood that we are speaking of true and exclusive pot vine culture—not that partial or mixed system which permits the roots of the vine to extend from the pots into a border.

In pot culture, grapes which it is impossible to ripen in the border without cracking, may be produced in the utmost perfection. The Chasselas Musque is a grape of this description. The cracking is due to excess of moisture in the border, which it is sometimes difficult to prevent. But in the pot we have entire control over the moisture, and hence perfect grapes can be produced.

A question which almost every man will ask, in respect to pot vine culture, is this: "Will it pay?" We answer, most unhesitatingly, it will. We know it will pay. We grant that pot vines require more care and attention than vines in borders; but they may be employed by many persons who have only small hothouses, without interfering with other plants, and without any great additional expense; large crops of early grapes (and late ones, too,) may be obtained where none could otherwise be grown; and the return, for the space occupied and care required, in pecuniary profit and personal gratification, will be found highly satisfactory.

Growing foreign grapes in hothouses is generally considered a sort of rich man's luxury. The pot vine may, on the contrary, be called the poor man's luxury. The grape in borders is generally grown on a man's own estate. The pot vine may be called the tenant's grape. In pots, the grape may be grown in any sort of hothouse, even in a three-light box, by the tenant of the humblest cottage; and when he is suddenly called upon, by any circumstance, to remove, he may take his vine with him, at any season of the year, and continue its culture at his pleasure.

There are many persons who have much taste for horticultural pursuits, and for the culture of grapes in particular, not restricted in means, who yet do not find it desirable to erect permanent graperies. To such, as well as to the really poor man, the pot vine is a most desirable acquisition. In city yards, where a greenhouse only ten feet square can be erected, there the grape may be grown and fruited in pots as perfectly as in the most costly and extensive structures.

With these advantages of pot vine culture before us, we think we may safely say, that when the art of growing and fruiting the grape in this way becomes fully and generally known, it will be be exceedingly popular. It is an art which ladies may learn and exercise under circumstances well suited to their tastes, and may even be made a source of profit, as well as pleasure, by many ladies who would not choose to engage in any common gainful occupation. To the man of wealth, who has extensive hothouses, it will add to his vines a convenient method of early forcing, and an elegant novelty for the parlor or the supper-party; and to the person of more limited means, it affords an opportunity to enjoy the pleasure of growing the richest grapes, at small expense, in the highest perfection.

STRAWBERRIES.

Our Southern friends must have had a fine crop of Strawberries. We understood, from very reliable authority, that the freight train from Baltimore to this city, on the night of the 7th of June, brought upwards of sixty thousand boxes, or nearly two thousand bushels! The boxes are of thin wood, containing a quart each, and are put in small chests, which hold about sixty boxes, or nearly two bushels, each. Most of these, we suppose, came from Maryland, Delaware, and Delaware County in this State.

TO READERS AND CORRESPONDENTS.

The great pressure on our columns this month, has compelled us, very reluctantly, to exclude a number of communications, a part of our very interesting Foreign Correspondence, and also a considerable part of our Foreign and Domestic Intelligence.

FRUIT GROWERS SOCIETY OF W. N. YORK.

This society held its Summer Meeting at Rochester. N. Y., upon the 23d and 24th of June, and the exhibition of seasonable fruits was in the highest degree creditable to its members. The Genesee Horticultural Society changed the day of its June meeting, so as to exhibit on the 23d also, and the Fruit Growers, at their request, showed their berries, &c., in the Horticultural Rooms; the two societies, by this junction, effecting one of the best displays ever made in W. N. York.

We are promised by the Secretary, Mr. C. P. Bissell, a condensed statement of the discussions at this meeting of the society. These promise to be very interesting, because the subjects are comprehensive and afford opportunity for much instruction.

We annex sampies of the questions to be debated:

"While we cultivate fruit as at present, is there any mode of putting an effectual stop to the ravages of the various pests now destroying our fruit? or, must we be driven to the English modes of cultivation: protecting and covering the fruit while growing?"

"Is there any benefit in ringing, ligating, or otherwise girdling the Grape vine? Does it increase the size of the fruit, the quantity of fruit, or does it hasten tne maturity of the fruit? When is the best time for performing the operation for each of these effects? Which is the best manner for either of these effects?"

Questions and Answers.

Frankford, June 16th, 1858.

Mr. Editor: Dear Sir,—We, as a society, were very much pleased with the manner you noticed our last communication, in reference to Celery, and it is our intention to try it, and give you the the result.

A word as to how we conduct our society, as it may be of benefit to some other workingmen wishing to form a similar one: We meet once a month, when one of us is prepared to give the history and best manner of cultivating some garden vegetable. We then enter it in a scrap-book, along with such pieces any of us may cut out of papers, for reference in future.

We are going to have an Onion show in August; there are four prizes,—two for seedlings. We will send you a report of it, if you please.

Yours, &c., Thos. Hargreaves,
Secretary of the F. W. Horticultural Society.

[Please send it.]

Washington City, D. C., May 25th, 1859.

Dear Sir,—Herewith I send you Flowers of what I suppose is a new species of Begonia; it was raised from Paraguay seeds, brought home by the expedition commanded by Capt. Page. A large specimen is now magnificently in bloom in the Greenhouse of Mr. John Howlett, in this city. Could you please say if new? or, if an old variety, what species? *

[The flowers sent were very beautiful. They are certainly of a Begonia, but the species is not in cultivation, and, so *new*. It may probably be *B. paniculata*, which, we think, has not been introduced, but the want of leaves prevents us from saying decidedly. Please send us a dried specimen in a letter, and we will try and ascertain more exactly.]

A Misnomer.—We notice, by a letter received from Dr. Cloud, Proprietor of "*Dr. Cloud's Cotton Planter*," that we *mist*-ified the Doctor's right name, by writing it *Mc*Cloud, in a recent notice. We are pleased that the Dr. did not take *umbrage* thereat, as we gather from the fact of his kind offer to send us, in season, specimens of the fruit of the *Blue Favorite* Grape, (and which we shall be most happy to receive,) that the serenity of his disposition is quite unclouded by our unhappy blunder.

Large Cucumbers.—A subscriber, Jasper Spring, near Savannah, enquires what kinds of Strawberries are usually exhibited amongst the forced fruit at the Pennsylvania Horticultural Society shows; also, of Cucumbers, and what length the best specimens of the latter have been known to attain. Some of the exhibitors will, perhaps, favor him with a reply. Cucumbers we have seen exhibited thirty inches long.

Delices D'Automne Strawberry.—Specimens of fruit, from Dr. G. Thomas, of Oakland, from the same plants that bore on the first of February. The berries measured three inches in circumference, the flavor not superior, but much better than either Albany or Hovey's Seedling. Whether it will produce successive crops in the open air, remains to be tested; but for pot culture, it is unquestionably valuable.

Peabody's Seedling Strawberry, from the same gentleman, was a noble berry, four inches round longitudinally, and three and a half vertically, and the flavor very superior.

A Pennsylvania Paper.—A friend, in sending the publisher a batch of subscribers, from "away down east," remarked that "though a Pennsylvania paper, he had met with astonishing success in bringing it before the notice of his friends." He must excuse us for objecting. As the ancient Phelim said, if "he had the honor to be born in a stable, he would nevertheless, still be but a man," so the *Monthly*, being born in Pennsylvania, claims the whole continent for its pasture ground, and hopes to find as good "picking" on the granite hills of Massachusetts, or the cane brakes of Louisiana, as in the iron pits of its native State.

Delices D'Automne Strawberry.—From Mr. Raabe, in a pot, bearing very abundantly; though not a strong plant, we counted fifty berries in various stages of growth. The ripe berries were medium sized, and though not of first flavor, yet might certainly be considered more than good. We look for its out door culture with some interest, for its ever-bearing character.

Lady Finger Strawberry.—Mr. Gerney, of this city, sends us a basket of his seedling Strawberry, marked "Lady Finger." They are a very peculiar long fruit, of medium size, fine color and excellent texture; but are not up to our ideas of a first rate flavored kind.

Felten's Improved Albany Seedling Strawberry. From Mr. Felten.—So much has been said of the identity of this and Wilson's Albany, that the public are impatient to know the result of this season's growth. Our own researches have failed to show any difference, so far. This lot of fruit from Mr. F., has the form, color, and every characteristic of the "Albany," even to the peculiar structure of the calyx; but they are larger and sweeter than any of Wilson's we have tasted this year. Knowing how much cultivation will do in these matters, we would not like to decide on this solitary basket, as to the matter at issue. All we can say, in justice is, that they appear to us to be the Wilson, very much improved by Felten's skill.

Catalogues, &c.

Articles submitted for our criticism under this head, should reach us early in the month, or they lie over.

Weatherhead & Cherevoy, New York. Circular of improved boiler. They claim to have so arranged their boiler, that the greatest possible surface of water is exposed to the action of the fire. The furnace and boiler are combined; the furnace being shaped like an egg-shell, and the boiler like a smaller egg-shell suspended in the other. Brick work for the furnace is dispensed with. If there is no danger of the external or furnace portion cracking with the action of different temperatures, on the inside and out, which we sometimes find the case to be in heated iron plates, the idea must be a good one. This experiment only can prove. The gentlemen say in their circular they "have been tested by many well-known practical men."

W. C. Strong, Brighton, Mass. Condensed list of plants; in which many new Roses are named, Fuchsias and other things, and one of the best lists of choice Pelargoniums we have seen in any catalogue this season.

John H. Brenneman, Mount Joy, Pa. Sheet Catalogue of fruits, ornamentals and bedding-plants.

Horr & Beebee, Dubuque, Iowa. A Treatise on Fruit-Growing in the North-west. An excellent little pamphlet of 16 pages, entirely on the subject of fruit-growing, for gratuitous distribution amongst their customers, which they will, we are sure, gladly receive and profit by.

T. G. Yeomans, Walworth, New York. How to Prune Dwarf Pear Trees. Mr. Y. is universally known as very successful with dwarf pear trees, and "in response to a vast number of inquiries as to his mode of pruning," he has printed this circular. It is one of the disadvantages of being "a public man," that he is run down with letters of a private nature, by parties who have not the slightest claim on the time or knowledge of the "party of the other part,"—often without the courtesy of a stamp for a reply. It is this tendency on the part of the inconsiderate that makes many of our best writers send their papers to press under assumed or anonymous names. Mr. Y. exhibits a commendable spirit of accommodation in the excellent directions he has here printed.

D. Miller, Jr., Cumberland Nurseries, near Carlisle, Pa. Descriptive Catalogue of Fruits, &c., of 54 pages, and certainly one of the prettiest, most complete, and most accurate, ever issued in the states.

Thorough Drainage. The Principles, Processes and Effects of Draining Land, &c. By H. F. French. Published by A. O. Moore & Co., New York.

We have not for a long time past read a work with more pleasure than this has afforded us. Though addressed principally to farmers, underdraining is, if possible, more useful to the gardener and nurseryman. The farmer, from habit, looks forward to yearly returns of any investment he may make on his land; but the nurseryman does not expect to realize much from his operations for three, four or five years. What he does, therefore, must, of necessity, have a more permanent aim.

It is a well-known fact that the majority of our nurserymen who have succeeded well in their business, have spent the most money in draining and subsoiling; and we question whether any but a very small proportion ever made any money at all worth speaking of, until they did begin to drain.

Our correspondent, William Reid, of Elizabethtown, is well known for his enthusiasm on this point, and we have no doubt many of our readers will know of numerous similar instances. In our own experience, the great and overwhelming advantages to be thus derived have been frequently witnessed.

In this work Mr. French modestly disclaims much originality. He says:

"We claim no great praise of originality in what is here offered to the public. Wherever we have found a person of whom we could learn any thing, in this or other countries, we have endeavored to profit by his teachings, and whenever the language of another, in book or journal, has been found to express forcibly an idea which we deemed worthy of adoption, we have given full credit for both thought and words."

If there is nothing new in the book—nothing but what has been before given somewhere or other in print—there is at least a novelty of manner and treatment that gives the work all the freshness of a new idea, and all the charms of those rare stories that we never tire of hearing repeated. Mr. French has collected together, from numerous sources, all the facts that have ever borne on the subject from the time of Noah. Every thing that has been achieved,

or tried, or proposed, is gone into with minuteness; all the theories that have been advanced are quoted, and the whole rationale of draining so lucidly explained, that no one can fail to thoroughly comprehend how to go about it, and well understand the art of making the auriferous stream flow through the pipes into his pocket.

How we pity the poor wretches who "can't make farming pay," and who go off, to better their condition, on Pike's Peak and other phantasies, instead of improving their chances at their own doors. Mining through thick and neglected deposits of silver, to get at the gold, literally and truly. How strange is the infatuation!

By draining, the produce can be doubled—one acre, in reality, becomes two, as Emerson says in a recent New Hampshire address:

"Concord is one of the oldest towns in the country—far on now its third century. The Select-men have once in five years perambulated its bounds, and yet, in this year, a very large quantity of land has been discovered and added to the agricultural land, and without a murmur of complaint from any neighbor. By drainage, we have gone to the subsoil, and we have a Concord under Concord, a Middlesex under Middlesex, and a basement-story of Massachusetts more valuable than all the superstructure. Tiles are political economists. They are so many Young Americans announcing a better ers, and a day of fat things."

There is a vast deal of ignorance prevalent, as to what amount of labor on the soil will "pay." We know many a fifty-acre farm, worth from $50 to $150 per acre, and on which all the capital employed is the labor of one man, namely the owner, with one boy, and the help, perhaps, of two or three other hands in harvest. Such farming, of course, will permit of but three or four horses being kept on it, with about two dozen cows, and if the owner lays by $50 or $100 per year, over and above the wants of his family, he thinks he is very fortunate. Yet it is hard for him to understand, that by spending more money, he reaps the more wheat. He will not, perhaps, answer you as the English farmer did Sir R. Peel when the inquiry was made, why the iron ploughs were discontinued in that section, "Sir, we tried the iron, and we be all of one mind, that they make the weeds grow;" but he will tell you that every dollar he saves in labor is so much gained. "If I have to give another hand $200, and instead of that do the work myself, I save *all that*." And so it goes. What will just do suffices.

Mr. French's book is just the thing for these people. No man can lay it down without his inclination rising to take up his draining tools and "go at it." He learns:

"Firstly—The drained land comes into condition for working, a week or ten days earlier in the spring than other lands.

"Secondly—The growth of the crops is quickened all through the summer by an increase of several degrees in the temperature of the soil.

"Thirdly—The injurious effects of frost are kept off several days later in the fall."

We have extended our remarks much further than we should have done did we not consider the subject one of the most pressing importance to every cultivator of the soil, and the work in question one most likely to aid in effecting a thorough knowledge of the vast benefits to be derived from the proper application of the principles explained.

Though very enthusiastic, the author is not an extremist. The following extract, with which we close our notice, is characteristic of the whole work:

"WHAT LANDS REQUIRE DRAINAGE?

"The more one studies the subject of drainage, the less inclined will he be to deal in general statements. 'Do you think it is profitable to underdrain land?' is a question a thousand times asked, and yet is a question that admits of no direct general answer. Is it profitable to fence land? is it profitable to plough land? are questions of much the same character. The answers to them all depend upon circumstances. There is land that may be profitably drained, and fenced and ploughed, and there is a great deal that had better be let alone. Whether draining is profitable or not, depends on the value and character of the land in question, as well as on its condition as to water. Where good land is worth $100 an acre, it might be profitably drained; when, if the same land were worth but the Government price of $1.25 an acre, it might be better to make a new purchase in the neighborhood, than to expend ten times its value on a tract that cannot be worth the cost of the operation. Drainage is an expensive operation, requiring much labor and capital, and not to be thought of in a pioneer settlement by individual emigrants. It comes after clearing, after the building of log-houses, and mills, and school-houses, and churches, and roads, when capital and labor are abundant, and when the good lands, nature-drained, have been all taken up.

"And, again, whether drainage is profitable, depends not only on the value, but on the character of the soil as to productiveness when drained. There is much land that would be improved by drainage, that cannot be profitably drained. It would improve almost any land in New England to apply to it a hundred loads of stable-manure to the acre; but whether such application would be profitable, must depend upon the returns to be derived from it.

"Whether land would be *improved* by drainage, is one question, and whether the operation will *pay*, is quite another. The question whether it will pay, depends on the value of the land before drainage, the cost of the operation, and the value of the land when completed. And the cost of the operation includes always, not only the money and labor expended in it, but also the loss to other land of the owner, by diverting from it the capital which would otherwise be applied to it. Where labor and capital are limited so closely as they are in all our new States, it is a question not only how they can be profitably applied, but how they can be *most* profitably applied. A proprietor, who has money to loan at six per cent. interest, may well invest it in draining his land; when a working man, who is paying twelve per cent. interest for all the capital he employs, might ruin himself by making the same improvement."

Obituary.

DR. AGARDH.

Died, on the 28th of January last, Dr. Agardh, Bishop of Wermland, Sweden, famous by his researches in natural science. The Swedes put him in the same line with their world-known Linnæus and Berzelius. Certainly Europe has lost in him one of her great lights in science. In botany he has made his mark chiefly in the knowledge of Algae.

He was a singular man, in some respects a first-rate genius, but a very peculiar one. As a youth he studied mathematics, and wrote some dissertations on that subject; then, hearing that botany was a very difficult science, he determined to show the little world of Lund that in a few months he could become an eminent botanist, and he therefore wrote some botanical dissertations. After that he turned his attention to theology, becoming minister of a church at Lund, and writing dissertations also on this subject; and lastly, as a member of Parliament, he was extremely busy with national, economical and statistical questions, wrote large books on this subjects, and published maps of Sweden, geological reviews, &c. There are probably few subjects of human knowledge on which he has not ventured to write. He was ever genial, with bright, sparkling wit and good humor; but always very, very superficial. In his moral character he was also very singular! With all his faults, with all his mistakes, he was one of those great geniuses of whom so few now remain in the world.

BARON HUMBOLDT.

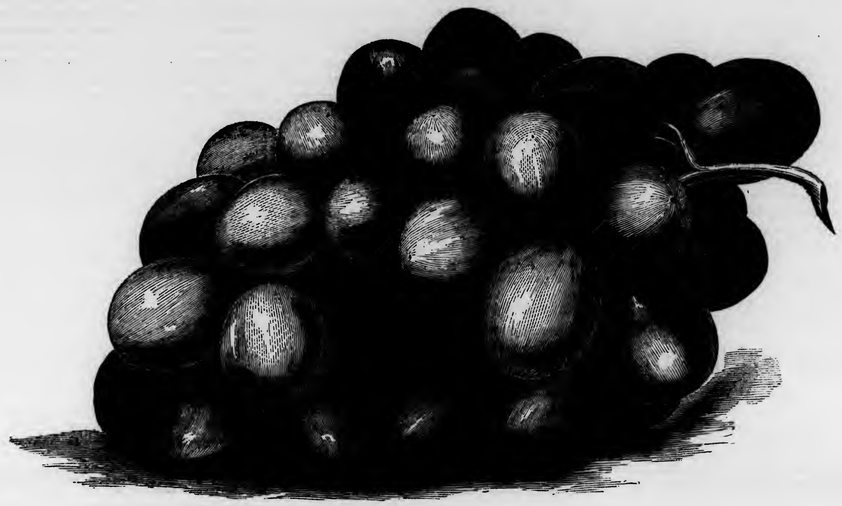
In our last we briefly announced the death of this distinguished man. He died in Berlin on Friday, the 6th of May, in his ninetieth year. He was born at Berlin on the 14th of September, 1769. He was an undergraduate at Gottingen, which university he left for Frankfort-on-the-Oder, where he made geography and geology his chief studies. In 1795 he was sent by the Prussian Goverment with M. von Buch to study the nature of the volcanic eruptions of Vesuvius. He subsequently joined M. Bonpland, who was on the point of starting on a scientific mission, but their plans were intercepted by the war. Through the interest of Baron Forell, the Saxon Ambassador, M. Humboldt then obtained authority to make a scientific tour of Spanish America. During eighteen months he examined geologically and geographically every part of Venezuela, the Orinoco, and the Rio Negro. He afterwards visited Bogota, the Cordilleras, and Quito. At this latter place, at great personal risk, he investigated the volcanic mountains. After spending some time at Lima, he landed at Havre in August, 1804, rich in experience, and with an invaluable collection of specimens of geological and botanical interest. He fixed his residence at Paris, taking an occasional trip to London; but Prussia could not spare so valuable a man, and the King requested him to return, made him a Privy Councillor, and offered him various diplomatic missions. He wished however to explore the Andes and the Himalayas, to make a comparison of their respective dimensions. This plan failed, but at the desire of the Czar he visited Siberia and the chief cities of Russia. There is not one branch of science to which Baron Humboldt has not contributed something, and his death is regarded throughout Prussia as a national calamity. His funeral took place on Tuesday in the Cathedral of Berlin, and was attended by the Prince Regent, the Princess and Princesses, and by all that represents science, art, and intelligence in that capital. Three Chamberlains in gold costume, bearing the orders of the deceased, preceded the funeral car, which was drawn by six horses from the Royal stables. Upon the car was a simple uncovered coffin of oak adorned with flowers and laurel. On either side of the car were students, bearing green palm branches, and a line of carriages of immense length closed the procession. No sooner was his death announced in Sardinia, than Louis Napoleon, in a decree dated at Turin, the capital, immediately ordered a statue of him to be erected in Paris. As we write, every nation is uniting to do him honor.

DR. DIONYSIUS LARDNER

Died on the 29th of April at Naples. He was the son of a Dublin solicitor, and was born in that city in 1793. After receiving such education as was to be had in Irish schools at the beginning of the present century, he was placed in his father's office. Evincing, however, a very decided distaste for the profession, he was entered at Trinty College, Dublin, and devoted himself to scientific studies. He soon showed that he had now chosen the right path in life, and he rapidly gained an extraordinary number of prizes in pure mathematics, as well as in natural philosophy, astromony, and other branches of study. In 1817 he obtained a B. A. degree, and for 10 years remained at the university, publishing at first various treatises on mathematics including the differential and integral calculus, and subsequently on the steam engine. For this he obtained a gold medal from the Royal Dublin Society; and his reputation being now in a great measure established he began to contribute to the "Edinburgh Cyclopædia" and the "Encyclopædia Metropolitana," writing elaborate articles on pure mathematics, as well as on the applied sciences. In 1827 on the establishment of the London University, Dr. Lardner accepted the chair of Natural Philosophy and Astronomy, and, removing to London, he set on foot the "Cabinet Cyclopædia," for which he obtained the co-operation of many eminent men. In 1840 he went to the United States, and delivered with much success a series of lectures, which have since been published. On his return to Europe, in 1845 he settled in Paris, where he has since resided. In 1850 he published his elaborate work of railway statistics, entitled "Railway Economy." In 1851 he wrote for the *Times* a series of papers upon the Great Exhibition, since republished in a volume. He next undertook an elementary course of treatises, under the title of "Handbook of Natural Philosophy and Astronomy," and in 1853 he commenced a series of essays on physical science, and its application to the industrial arts, entitled "The Museum of Science and Art." He afterwards completed a volume on animal physics, presenting a popular view of the structures and functions of the human body and those of the inferior animals. He also contributed several original papers to the Royal Astronomical Society, which have been published in their "Transactions." Dr. Lardner was twice married; first to Miss Flood, a decendant of Henry Flood, well known in Irish Parliamentary history as the contemporary of Henry Grattan By this lady he leaves one surviving son, a Commissary-General in the British army. He married, secondly, the only child of the late Lieut. Colonel Spicer, of the 12th Lancers, by whom he had two daughters.—*Gard. Chron.*

GOLDEN HAMBURG AND BOWOOD MUSCAT GRAPES.

BY G. T.



Oakland, June 16th, 1859.

Mr. Thomas Meehan:

Respected Friend—Please accept the contents of box—a bunch of Golden Hamburg and one of the Bowood Muscat, the latter not quite ripe, but will give some idea of the size and shape of bunch and berries. My under-ground houses I find very damp, —impossible to get an atmosphere sufficiently dry to ripen and give good flavor to fruit, unless I put in fire, even during this very hot weather. You may see they are beginning to decay. However, I have got over one hundred pounds of grapes from eight vines, including five pots of Hamburg. Vines look very healthy. Fine rich green foliage. Cut to-day a bunch of Muscat of Alexandria weighing two pounds, less an ounce, of fine flavor; also Grizzly Frontignac, White do., Wilmot's Hamburg, and some other varieties, but the above seem to do the best. I have discovered that I cannot make a greenhouse answer a double purpose; that is, cultivating flowers and vines together. I must take out my grapes, and get a new lot of flowers. I see the plan recommended; but better have two houses: for I have tried hard to make both do well, without success. The bunches I send are average ones. Both kinds will, I think, do well in cold graperies, and I have planted several. Yours, truly, G. T.

GOLDEN HAMBURG.

N.B.—The Delice Strawberry is bearing a second crop. I counted 20 berries on a plant.

I sent a few berries to show the size, &c. I expect you have them growing. Mine, so far, are perpetual bearers. At no time since March have there not been ripe strawberries on them, and now I could pick a saucerful. None, as yet, have sent off runners, but are full of blossoms and fruit.

[We have had the specimens so kindly sent us, engraved. Though we have had specimens of Golden Hamburg from several quarters, none have equalled this in size of berry or fine flavor. The bunch itself is below the size they usually attain.

The *Bowood Muscat* was not fully ripe, but sufficiently so as to give promise of great excellence.—Our cut represents only a small part of the bunch sent.

The *Delice d'Automne* Strawberry we received in good order, and have noticed them in another column. We think that our prophecy, made some months ago, that we shall, before long, have perpetual Strawberries, is in a fair way of being fulfilled. This kind, however, may not prove so constant a bearer in the open air as under pot-culture; but the elements are evidently there, awaiting development. —Ed.]

BOWOOD MUSCAT.

New and Rare Fruits.

New English Strawberry.—Of the Spring Exhibition in London the *Gardener's Chronicle* says:—"The gem was a dish of the Sir Charles Napier Strawberry, from Mr. Smith, of Twickenham, of the most brilliant *vermillion* color, such as the most experienced eye never saw before, and of the largest possible size; for the decoration of a dessert, this eclipses every thing."

Apple.—*Pound July* is described in the *Country Gentleman* as the largest of its season known in Kentucky. Its color is a beautiful yellow, sweet and juicy. The tree is a thrifty grower and a good bearer. When the trees have more fruit set than is necessary, they will thin out themselves, so there can be no danger of their breaking down.

The Morgan Pear.—The Morgan Pear originated in New Hanover County, N. C., on the farm of a Mr. Morgan, since dead, and was introduced into notice by the Hon. W. B. Mears, a lawyer of distinction in that State.

The specimens vary in size from eight inches to twelve and three-quarters in circumference; we had two of the latter size. In form it is oblate, varying to obtuse pyriform; stem slender, and about one inch in length; basin abrupt and deep; calyx small, and destitute of segments, color greenish yellow, specked with grey russet specks, intermingled with a little tracery of the same; size large, to very large; flavor sweet, juicy, slightly vinous; flesh white, and a little gritty. Ripens during the month of October. Quality *very good*, nearly *best*; better than either Louise Bonne de Jersey or Duchess d'Angouléme. Will not grow on the quince. The tree is a fine grower; young wood olive green, with white specks; leaves lanceolate and slightly serrated.—*Horticulturist.*

Early Green Madeira Grape. (*Vert Precoce de Madere*).—Bunches of good size, cylindrical, slightly compact. Berries medium-sized, oval. Skin of a green color, which it retains till its perfect maturity, when it becomes a little clearer, but still preserving the green tinge. Flesh with a rich and sugary flavor. This is one of the earliest grape known, and ripens in a cool vinery from the beginning to the middle of August. It will also succeed against a wall in the open air; but, of course, is not then so early.

[We copy the above description from the *Cottage Gardener*. We have not seen this grape in any of our collections. From its earliness, it may be valuable for forcing.]

New or Rare Plants.

SPATHODEA CAMPANULATA.—Described by Sir W. Hooker, in the *Botanical Magazine*, as a *Begoniacious* plant, is evidently a mistake for *Bignoniacea*. It is a magnificent flowering tree from Africa, with large clusters of scarlet flowers, each flower resembling a large scarlet Lily. It is a strong-growing stove-plant.

CHRYSANTHEMUM CARINATUM.—We have before noticed the new and beautiful varieties of this old annual. Plate 5095 of the *Botanical Magazine*, variety *pictum*. Apparently very beautiful. The flowers are like our common white wild Ox-eye Daisy, but a beautiful scarlet border encircles them.

STEPHANOPHYSUM BAIKIEI.—An Acanthaceous plant from the present English Niger Expedition, and with very beautiful rich crimson flowers. It will probably become a popular stove-plant.

Foreign Intelligence.

CINERARIA AMELLOIDES.—This old-fashioned, but useful, plant is highly recommended by a writer in *La Revue Horticole* as an excellent bedding plant. He says:

"I have cultivated it many years without attaching to it the importance that it deserves; but at last the thought struck me to try it as a bedding-out plant, and for this purpose I struck a quantity of cuttings (which root easily) and planted them out in a bed, and by their beautiful and long-continued bloom they have well rewarded me for my trouble."

[YEARS ago, this beautiful blue was common as a bedder. Now it is brought out as *new* again.—ED.]

CURE FOR WOUNDS.—A correspondent of the *Revue Horticole* writes as follows:

"In last December I was wounded severely with a chisel in the left hand. I was advised to try the leaves of the Valerian (*Valeriana Phu*). I applied successively 15 leaves, and in five or six days the wound had entirely healed. In using it, remove the midrib, and strike the leaf between the hands once or twice to bruise it, and apply to the wound. One characteristic of this plant is that it is very attractive to cats, who will eat it if not well protected.

"BUTTE, Jardinier à St. Maude."

[*Valeriana divica* is extensively used for the same purpose.—ED.]

GERMINATION OF SEEDS.—The gardener should always bear in mind, that it would be a very erroneous conclusion, because a seed does not germinate at the accustomed time, that, therefore, its vegetative powers are departed. No two seeds taken from the same seed-vessel germinate precisely at the same time; but, on the contrary, one will often do so promptly while its companion seed will remain dormant until another year. M. De Candolle relates an instance where fresh Tobacco seedlings continued to appear annually for ten years on the same plot, though no seed was sown after the first sowing; and the same phenomenon usually occurs for two or three years, when the seeds of either the Pæony or Hawthorn are sown. Why one seed is more easily excited than another is as yet unexplained, but the wisdom of this one of many provisions for avoiding the accidental extinction of a species in any given locality is readily discerned. An ungenial spring may destroy the plants arising from those seeds which first germinated, but this could scarcely occur also to those of the second and third year, or even to those which were only a few weeks later in their vegetation.

It is not possible to declare a general rule, relative to germinating temperatures, requiring no exceptions, but, in general, for the seeds of plants, natives of temperate latitudes, the best germinating temperature is about 60° F.; for those of half-hardy plants, 70° F.; and for those of tropical plants, about 80° F.; and the necessity for such temperatures depends upon the same causes that prevent the hatching of eggs, unless they be kept for a certain period at a temperature of about 100°. The requisite changes are not produced either in the seed or in the egg, unless it be submitted to the propitious temperature; but why this is requisite to develop the forms, and effect the changes, without which there is no vitality, is a secret at present withheld from man's understanding by his Creator, and we must rest satisfied with the approximate knowledge that caloric is the vast and all-prevading agent he employs to call life into existence.

TROPŒOLUM LOBBI.—Many of the Tropœolums are useful and ornamental as winter flowering plants, and where great quantities of cut flowers are required in winter they will by and bye be considered indispensable. From three plants of Lobbi, four feet high and two feet in diameter, we cut hundreds of flowers every week—a great handful every day from December till the end of March. Being of a brilliant scarlet, the flowers mix up and contrast beautifully with those of Deutzia gracilis, white Azalea, ect., in small bouquets. At the end of March we allowed many of the flowers to run to seed, and since it has been gathered the plants have recommenced to grow most vigorously, and probably will be in a short time one mass of bloom, dazzling to the eye. Florists who supply the market with cut flowers will find that scarlet Tropœolums will amply remunerate them for the little attention they require. Plants do best from seed, but they will answer from cuttings. June and July are the best months to sow the seed, or purchase plants for flowering in late autumn and winter. They like a rich soil, and require one or two shifts before they are put into 13-inch pots, and of course a little artificial warmth in winter is necessary to keep the plant in continual flower. As the blossoms of Triomphe de Gand others are larger and quite as bright a scarlet, they may be perhaps by some considered better than Lobbi. We are trying several varieties as out-door plants, and shall cross them with the old Canary Creeper, and *vice versa*.—*A. Pettigrew, in Gardener's Chronicle.*

PREPARATION OF SEED BEDS.—In order to avoid, to a great extent, the hand-weeding of seed beds, prepare the soil for sowing the seed, but let it remain ten days or two weeks, until the most of the weeds in the soil vegetate; then hoe it over on a hot sunny day, which will kill all the young weeds; and then sow your seed.—*La Revue Horticole.*

MESEMBRYANTHEMUM CRYSTALLINUM, *The Ice Plant.*—This charming plant, so much used as a decoration for rock-work, can be recommended for other purposes; and first, when cooked like spinach, it is far superior to it, and as a decoration for meats and fish, it surpasses the *eternal* parsley, whilst there is nothing more coquetish around a roast fowl. Eaten raw, in a small quantity, it refreshes the mouth by its slightly saline taste.

But the triumph of this plant, as an ornament, is to suspend small branches of it from a basket of fruit at the dessert. Its beautiful emerald green, incrusted with myriads of little diamonds, adds a grace and beauty to the dessert, which, by its elegance, awakens gay and sparkling ideas at the end of the repast. Its culture is as follows: Sow seed in a hot-bed in March; transplant when one inch high, into another bed, and set out in May. They like a rather moist situation, or frequent waterings in dry weather. It is perfectly hardy. Its beauty is increased by cutting it and putting the branches in a dark cellar, when the leaves become smaller and fringed with purple. It should be boiled in water, with a little salt; when done take it out, and when half cool draw the branches between your thumb and finger and the young shoots will fall off; throw away the stems and serve it up like spinach.

SOJA HISPIDA, *or Oleaginous Pea.*—The Oleaginous Oil-bearing Pea of China has been proved to be perfectly adapted to the climate of France. In the month of April, 1858, some seed were planted in a calcareous and argillaceous soil naturally of a cold character.

They were lightly covered, and germinated in seven days, the weather by day being mild, but the nights cold. The peas ripened about the 15th of October. According to Vilmorin, they furnish 21¼ parts of oil, in every 100 parts. After expressing the oil, the Chinese add some salt to the cake, and press it into moulds, making of it an excellent cheese, which is much in demand. It is also, when cooked, an excellent esculent and good for forage.—*Revue Horticole.*

[As the "Japan Pea," this is now well known with us, having been widely disseminated some years ago by Mr. Ernst, of Cincinnati.—ED.]

Foreign Correspondence.

From Our Regular Correspondent.

LONDON, June 4th, 1859.

THE leading gardening establishments in this country are undoubtedly the Market Gardens around London, which, for skilful and economical management, are excellent examples for the private horticulturists.

The greatest wonder, perhaps, to a countryman on approaching London, is the vast extent of land under fruit and vegetable cultivation, computed at not less than 200,000 acres, the average rental of which is more than £9 per acre per annum, and 10 shillings per acre taxes. The most successful cultivators allow about one load of manure to every thirty square feet of land, the cost of which is about £12 per acre. The number of hands employed is, on an average, about fifty women and twenty men to every hundred acres. The wages they receive varies from 5 to 10s. per week for women, and from 15 to 20s. for the men; but as the greater portion of the work is done by contract, their earnings vary according to their skill and application. As spadesmen, they are unrivalled. By far the greatest portion of them are from Ireland. The principal vegetable crops are Asparagus, Rhubarb, Cabbage, Brocoli, Cauliflower, Lettuce, Onions, Sea Kale and Radishes; but every known vegetable of best descriptions only are grown. The greater part of their stocks of seeds are grown amongst themselves, so that they can at all times rely upon the crop being true to the root they require.

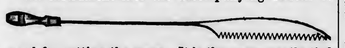
Perhaps the least profitable crop at the present time is Rhubarb, once the best paying of any. There are still several hundred acres grown, particularly in the neighborhood of Deptford, where the first plants were grown by Mr. Myatt, about forty years ago.—This gentleman has raised most of the approved varieties now in general cultivation.

Asparagus, from the large quantity grown, appears to be a profitable crop, and always meets with a ready sale. To describe the cultivation of each article, would occupy a large book, (and a valuable one it would be.) I will content by giving a description of two or three of the leading articles, which will suffice to give an idea of the general method of cropping, beginning with Asparagus, a crop which succeeds well in the vale of the Thames. The ground is naturally light and sandy, well pulverized by continually stirring and cropping, and only needs to be liberally manured to prepare it for the seed, which is

sown in drills in April two drills to each bed of three feet wide, allowing two feet more for alleys, which are planted with Cauliflower, Spring Cabbage, or a little later with French Beans. On the beds, between the rows of Asparagus, are sown Lettuce, Radishes, &c. This same system of cropping is continued for three years—the length of time considered necessary—before commencing to cut the grass. The distance allowed from plant to plant is six inches (in the lines). In the spring of the third year the beds are prepared for cutting a light crop, care being taken not to exhaust the plants too much the first season. Early in March, should the weather be favorable, the beds are lined off, and the alleys turned upon the beds to the depth of about nine inches.

It is a peculiar fancy of the London consumers to have the grass grow about twelve inches long, blanched within one inch of the top. As this small portion only is consumed, it appears ridiculous that so much waste should be grown for so little of utility, when the whole might be grown for consumption, and with less trouble. In answer to an inquiry from a grower, how this was, his reply was, "Why, bless ye, they wouldn't look at it in the market. It would only sell for sprue if grown green."

An instrument like the accompanying sketch is



used for cutting the grass. It is then very neatly tied in bundles with small willows, each bundle containing fifty or one hundred grass. At the end of the season, and when the uncut grass has ripened, it is cut down close to the surface. The beds are then forked over, and the soil levelled from the beds to the alley, which are well manured and planted with winter greens, or, as is generally called, Collets, for winter and spring supply.

Letter from Paris, France.

"WE have literally had no winter here this year," writes an occasional correspondent of ours from Paris. "The trees have put out as early as February, and the oldest inhabitant does not recollect such weather.

"The Department 'of Roads and Bridges' is all the year round busy planting shade-trees in and around Paris. You will be aware that these trees are from 20 to 40 years old, and are removed from the neighboring forests. They are planted any month in the year, not excluding the summer months. The puny trees on the Boulevards are now being taken out, and 30 year old Platanus, Horse Chestnuts, Lindens, &c., are put in their places. I am credibly assured by an official, that the average loss does not exceed ten per cent."

Horticultural Societies.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The monthly meeting for June was held on Tuesday evening, June 21st, at Concert Hall.

M. W. Baldwin, the President, in the Chair.

This was expected to be one of the grandest exhibitions of the year, but it proved a few days too early for some things and too late for others advertised for competition, and so the exhibition, though still superior, was not what was expected.

Instead of the many competitors for Roses that was expected, only three or four collections could be mustered. Amongst some newer ones exhibited by Mr. Buist, we noticed Eveque de Nimes, George Peabody, Dr. Trouillard, dark color varieties; and Triomphe de Rennes and Mad. Willermoz, white.

The Fuchsias were an improvement on those usually exhibited, in this, that they were dwarfly grown, and the efforts of the exhibitors seemed to be to get the greatest amount of blossoms into the smallest amount of growth, instead of the big overgrown specimens usually seen. In Mr. Mackenzie's collection, Rose of Castile and Little Treasure were very attractive.

In a collection of new ones exhibited by Mr. Buist, one of them (*Pet*) was very interesting from its very dwarf habit of growth and abundance of flowers—these something resembling the old coccinea.—*Guiding Star*, has the calyx much reflexed, and of the purest white we have seen.—and Princess of Prussia has very white petals, with a scarlet corolla. British Sailor is a large, showy kind in the way of Bank's Glory.

There were several collections of Achimenes, considering how early, but no new ones of interest. Sir T. Thomas and Verschaleltii, in Christian Mack's (gardener to B. P. Hutchinson) collection, were the most distinct. Mr. Buist's Gloxinias were remarkable for having so many blooms on such small plants. They were not much over a foot in diameter, and on one we counted 120 flowers. Mr. M. Hegarty, gardener to Joseph Harrison, had also a very handsome lot of 12 tubular kinds.

In the plant collections were many plants of the usual interest. Meyenia erecta, with large Achimenes-like flowers, in Mr. Eadie's (gardener to Dr. Rush) collection, being the most novel. A remarkably pretty Verbena, rich plum-color, with white eye, in Mr. Mackenzie's collection, named Leviathan, attracted much attention, as did the Double Petunia purpureo pleno. Double Petunias were also exhibited by Mr. Buist. Azora, blush, with purple lines, and Mad. Thibaut, purple, being most conspicuous. A dwarf Heliotrope, with large trusses of purple flowers, Petite negresse, and Meyenia erecta alba, in the same collection, we also noticed.

In Mr. Dundas' collection of plants, a large plant of Hoya imperialis was in flower, but not freely. Mr. Dundas had a fine collection of orchideous plants,—one of them, Phalænopsis amabilis, a very expensive and very beautiful kind. Oncidium papilio, the Butterfly Flower, was also amongst them.

Mr. Gerney had on exhibition a great number of his fine seedling Carnations and Picotees, which are beginning again to come into popular favor.

The fruit table was a centre of great attraction, though too early in the season for most kinds, and too late for Strawberries. What there were of the latter were very fine, though there were no novelties. Most of the berries averaged three inches in circumference. The Albany and Hovey's seedlings were the largest and showiest.

The Cherries were very attractive. One dish of Griotte of Portugal, a "pie cherry," had fruit nearly double the size of Early Kentish, and we believe, yet earlier. The others were of the commoner kinds, as Bleeding Heart, Black Tartarian, White Biggareau.

Raspberries were scarcely in season, but there were several good dishes—one of the "Hornet," a kind gaining much local celebrity, and another of the Hudson River Antwerp. Grapes in pots very good, with from six to eight bunches on each, from Mr. Abbot, drew much attention, as did also the numerous cut bunches from various growers.

The vegetables were not as numerous as we have before seen here; but, what is much more important, seemed to come from a great number of growers. Mr. Richards' Tomatoes were no less admired for their size, than their earliness, and Mr. Duhring's Cauliflowers particularly large. We expected to see a severe fight amongst the many rival kinds of Peas; but were rather surprised on examining the labels, to find Buist's Extra Early and Prince Albert the commonest names amongst them.

The next meeting of the Society is on the 19th of July; and no one who wishes to see the varied and best productions of horticulture together, should fail to attend, and bring with them any thing that may interest.

[OFFICIAL REPORT.]

We must again congratulate the gardeners and proprietors for the very admirable display of plants, fruits and vegetables, and we hope that their enthusiasm for their most refining occupation will go on until we can point to Philadelphia and its Horticultural Society as the models for the world.

In the Hall, last evening, we noticed a number of new plants, shown for the first time, many of them most beautiful and highly creditable to the skill and taste of their growers.

The tables were filled with plants deposited by the following: By Christian Mack, gardener to B. P. Hutchinson, who had an unusually fine collection of Achimines, which were accidentally passed by by the Committee; also, two beautifully arranged hand Bouquets, by John Gerney, a large number of American Seedling Carnations and other flowers; by John Pollock, gardener to James Dundas, a splendid collection of plants, too numerous to name here, amongst them many new Fuchsias; by Mathew Hegarty, gardener to Joseph Harrison, six very fine Gloxineas; by Peter Mackenzie, a large collection, including some beautiful specimens of Fuchsias, Petunias, and a Verbena, new and shown for the first time, by Joseph Parker, a Hydrangea; by James Eadie, gardener to Dr. James Rush, another large and very choice collection of plants; by R. Buist, a number of beautiful plants and cut flowers; by R. Kilvington, design and bouquets.

Fruits.—By John Lauders, gardener to S. T. Altemus, a large display of fine grapes and raspberries. By John Brooks, gardener to C. F. Abbot, excellent grapes in pots and cut bunches, and strawberries. By A. L. Felton, cherries, several varieties of strawberries and mulberries. By John Cook, gardener to Rev. J. M. Richards, some fine grapes. By A. Felton, gardener to Henry Duhring, some fine raspberries and currants. By R. G. Swift some large currants and gooseberries. By J. B. Baxter, several varieties of cherries, gooseberries and currants. By Thos. Meghran, gardener to Joseph Ripka, cherries; also, vegetables by the same; and by R. G. Swift, A. Felton, John Cook, John Brooks, and by James Jones, gardener to Girard College.

The Committee on plants and cut flowers awarded the following premiums; Best Fuchsias to John Pollock, Gloxineas, to Robert Buist; second best to M. Hegarty. Roses, best to R. Buist. Herbaceous cut flowers to R. Buist. Hardy shrubs, best to the same. Collection of 10 plants, best to John Pollock. Collection of 6 plants, best to James Eadie. Collection of 4 plants, best to James Eadie. Specimen plant, first class, best to John Pollock; second class pair, to John Pollock. Table design, best to Robert Kilvington; second best to J. J. Habermehl. Bouquets, best to Christian Mack; second best, to R. Kilvington. Also the following special premiums: $3 to R. Buist for beautiful Begonia and Fuchsia. $2 to John Pollock for new Fuchsia. $2 to John Gerney for Picotees and Delphinum. $3 to Peter Mackenzie for a general collection.

The Committee on Fruits report as follows:—That they have had their experience agreeably exercised this evening, in the close competition amongst some sort of the fruits, and whilst they would not pass over any of merit without notice, they have to express their approbation of all in the better arrangement and more careful selection than has often been formerly displayed.

They make the following awards:—For the best Black Grapes, to John Lauders; second best, to John Brooks. Best white, to John Cook; second best, to John Lauders. Grapes—Two specimens in pots, best to John Brooks. Strawberries—Albany Seedlings, to A. L. Felten; Germantown, best to the same; Moyamensing, second best, to the same. Cherries—best three sorts, to J. B. Baxter; second best, to Thomas Meghran. Currants—Red Dutch, best, to A. Felton; White Dutch, to J. B. Baxter. Raspberries—Hudson River, best, to John Lauders.

The Committee begs to observe, that the raspberries and currants are earlier this season than the schedule requires, they consequently award the premiums for them now, that are offered for July. The sample of Gooseberries before us is very fine, but too green for a premium.

The Committee on Vegetables awarded the following:—For Potatoes—Best, to A. Felton. Peas—For the best, to the same; second best to John Cook; Beets—Turnip variety, best, to A. Felton; second best, to James Jones. Also, a special premium of $1 to A. Felton, for very fine Lettuce, one of $1 to John Cook, for some very fine Fejee Island Tomatoes; also $1 to John Brooks, for very fine Cucumbers.

A number of new members were elected and several more proposed.

CINCINNATI HORTICULTURAL SOCIETY.

SPRING EXHIBITION.

FRUIT COMMITTEE'S REPORT.

STRAWBERRIES.

Exhibited by F. G. Cary, College Hill:

Longworth's Prolific—Very fair samples of an after picking, the largest berries having been ripened several days ago. The Committee deem it unnecessary to say any thing additional to what has already been published in favor of this excellent variety.

McAvoy's Superior—Five specimens, retaining its reputation for superior flavor.

Jenny Lind—Form, conic; color, bright red; medium size, slightly necked; flavor good.

Hooker—Form, obtuse conic; color, very dark; rich, high flavor promises well.

Wilson's Albany—Form, irregular conic, broad, flat base, tapering to a sharp point at the apex; color, deep red flesh; a dark orange-color flower; good. Said to be very productive.

Trollope's Victoria—Form, nearly heart-shaped, pretty regularly formed; color, a light red; a handsome, showy fruit; flavor, good.

A Seedling of medium size and fair quality.

The foregoing collection was not only interesting from the novelty of some of the varieties comprised in it, but evinced careful and good cultivation, and the Committee were unanimous in awarding it the first premium for best six varieties.

William Conclin, Campbell co., Ky., two varieties of Strawberries, without name—very fair specimens.

Henry A. Johnson, Esq., Avondale—McAvoy's Superior; a large bowl of fine handsome fruit. Awarded the first premium for best display of one variety.

N. Gregory, Esq., College Hill—Hovey's Seedling; large and handsome.

Crimson Cone—Premium for second best display.

S. S. Jackson—Second best display new variety Elizabeth, a seedling of medium size and fine flavor.

Jenny's Seedling.

Charles Schultz, Esq., Fruit Grove, Warren co.—Longworth's Prolific. Fair specimens.

E. J. Hooper—First premium for best plate of Hovey's Seedling. Large, fine and handsome; in its best condition.

Dr. Warder—No. 3.

William Addis—Longworth's Prolific, second best fruit.

Wilson's Albany—First premium, best display of new varieties.

Dr. Mosher—Trollope's Victoria.

CHERRIES.

E. J. Hooper—First premium for best display in variety and quality.

Dr. Kirtland—Napoleon Bigarreau, Elton, Oxheart, Early May, May Duke, Yellow Spanish, Mary.

Charles Shultz—Second best display—Black Tartarian, Early May, May Duke, Yellow Spanish.

P. S. Bush, Covington, Ky.—Elton, best pint.

John Sayers—Black Tartarian, second best pint. Napoleon Bigarreau, seedling.

GOOSEBERRIES.

Eli Taylor, Esq., College Hill—Houghton's Seedling; one variety without name.

Your Committee regret that the unfavorable character of the weather for early fruits, has shown itself in the paucity of samples on exhibition. Some of the specimens of Strawberries shown were equal to any seen at previous Exhibitions, and we would particularly commend those shown by F. G. Cary, Esq., N. Gregory, Esq., and the very handsome plate of Hoveys exhibited by the Secretary, E. J. Hooper, Esq., to which was awarded the first premium for best fruit.

We were also gratified by the sight and taste of the two new Eastern varieties, Hooker and Wilson's Albany, both of which were highly commended by the exhibitors.

Cherries were not equal in quality to those in former seasons, no doubt owing to the rapidity with which they were hurried to maturity by the unseasonably hot weather of the past three or four weeks. Respectfully submitted by

WILLIAM HEAVER,
JOHN SAYERS,
H. PENTLAND.

REPORT OF FLOWER COMMITTEE.

VERBENAS.

Best six varieties, to W. Heaver	$3 00
Second best, six varieties, to Haseltine & Co	2 00

CALCEOLARIAS.

Best display to W. Heaver	3 00
Best shrubby specimens to S. W. Haseltine & Co	2 00

FUCHSIAS.

Best, six varieties, to William Heaver	3 00
Second best, six varieties, S. W. Haseltine & Co	2 00
Best, three varieties, Herman Harlan	2 00
Second, to Sayers & Hutchinson	1 00
Best specimen, to Herman Harlan	1 00

PELARGONIUMS.

Best, six varieties, to Haseltine & Co	3 00
Second best six varieties, to W. Heaver	2 00
Best, three varieties, to W. Heaver	2 00
Second best, three varieties, S. W. Haseltine & Co	1 00
Best specimen, to Anthony Pfeiffer	1 00

SCARLET GERANIUMS.

Best, to Sayers & Hutchinson	2 00
Second best, to J. S. Cook	1 00
Best specimen, to Sayers & Hutchinson	1 00

PHLOXES.

Best, six varieties, to Anthony Pfeiffer	3 00

PANSEYS.

Best Collection, Anthony Pfeiffer	2 00

STOVE AND GREENHOUSE PLANTS IN BLOOM.

Best, 12 varieties stove and greenhouse plants, to Sayers & Hutchinson	10 00
Second best, 12 varieties, to W. Heaver	5 00
Best, 6 varieties, to S. W. Haseltine & Co	5 00
Second best, 6 varieties, to J. S. Cook	3 00
Best, 3 varieties, to Herman Harlan	3 00
Best Specimen, Sayers & Hutchinson	2 00
Second best, to Haseltine & Co	1 00

CUT FLOWERS—ROSES.

Best, 24 varieties, to W. Heaver	3 00
Second best, Sayers & Hutchinson	2 00
Best 12 varieties, to Haseltine & Co	2 00
Second best, Sayers & Hutchinson	1 00
Best Display, to W. Heaver	5 00
Second best, to Sayers & Hutchinson	3 00

VERBENAS.

Best Display, to W. Heaver	3 00
Best and most tastefully arrayed Basket, H. Heaver	2 00

THOMAS LAMBERT,
THOMAS KNOTT,
JOHN H. JACKSON.

Bacon's Building, May 21, 1859.

President Haseltine in the Chair.

Minutes of the last meeting read and approved.

With reference to Mr. Longworth's communication last Saturday, Mr. F. G. Cary remarked that he had never known of the Washington or Iowa Strawberry being thrown aside; he knew of two individuals who had sold between four and five hundred bushels this year; and that the Washington is generally a week earlier than any other kind in the neighborhood of Cincinnati.

Mr. Stoms would not think of discarding the Iowa or Washington. Longworth's Prolific he thought uncertain; liked McAvoy's Superior better, but it lacked aroma. The Iowa was the berry to grow for the million.

Dr. Warder stated that the Prolific required more time to ripen than the others.

Mr. Cary thought no strawberry replaced the Iowa in earliness; he did not know five men who had pure Prolifics; he did not think the flavor fine, but it was *prolific*, and earlier than the Superior. He thought Wilson's Albany the most promising at present.

Mr. Stoms said that the Iowa was immensely productive in new land.

Dr. Taylor spoke highly of the Prolific since he got the pure one—had a poor opinion of it before.

Mr. F. G. Cary exhibited a beautiful bouquet of Roses, etc.

Mr. Pentland exhibited a most magnificent display of Remontantes and Bourbon and other Roses.

Mr. Addis exhibited a very large and beautiful specimen of the Hooker Strawberry.

Dr. Taylor, of College Hill, displayed some large and beautiful Seedling Strawberries of very good flavor. Also, some very fine Prolifics.

Messrs. Ongley and Stain represented to the Society that they have lately become the publishers of the *Cincinnatus*. They respectfully solicit patronage from the Society and the public, the work being the acknowledged organ of the Society. This excellent periodical has been continually progressing in improvement and interest, for these two years past, especially.

Resolved, That the $200 salary to the Secretary is to remunerate him for all necessary services appertaining to the office he holds, whether in collecting money, or at exhibitions for extra Secretarial purposes.

Adjourned. E. J. Hooper, Secretary.

MAY 25th.

Mr. Stoms spoke in favor of McAvoy's Superior Strawberry. The Prolific does well in manured and trenched ground, but the Washington was only rendered tender thereby.

Mr. Cary spoke enthusiastically of the Prolific when obtained *true*—a kind that produced no berries, sometimes so called, was a forgery. He would plant McAvoy's near it.

Mr. Addis obtained the Prolific from Dr. Warder. It did no good the first year, but admirably the next.

Dr. Taylor observed that there were two classes of cultivators—one amateurs, the other market cultivators. A family demands comparatively a higher flavor, and more care in the culture, and a small patch only. The market gardener requires a kind that can be cultivated more easily, ploughed up, and then planted again. He had planted ten or twelve different sorts last year, all having the same soil and cultivation. He had found the Hooker, Longworth Prolific and Wilson's Seedling the best—the Monroe Scarlet, Jenny Lind, and some others, much inferior to them. He considered Wilson's Seedling the most promising, with him, of any he had tried.

Mr. Heaver thought highly of the Prolific.

Mr. Stoms admitted the flavor of the Washington to be inferior; but, asa paying strawberry, and for the million, it was the best.

Dr. Mosher observed that neither the Prolific nor Peabody did well when allowed to crowd themselves with runners.

Mr. Gregory favored Hovey's Seedling as a longer-continued bearing fruit.

Mr. Addis testified to the Prolific's hardiness.

Mr. Riley favored the Prolific. Fraud, he said, had injured its reputation.

Dr. Taylor also spoke of its value. Ten years, he said, was not sufficient to test its value.

Mr. Mear had the genuine Prolific, but rather favored Hovey.

REPORT OF FRUIT COMMITTEE.

From T. V. Petticolas—Strawberries—two Seedlings, with a communication.

No. 1.—Form conical, bright red color, good flavor, medium size.

No. 2.—Form rather flattened, with a slight neck, inferior to No. 1.

By Dr. Mosher—Peabody Strawberry: said to have been pulled four days, and in a good state of preservation.

F. G. Cary—McAvoy's Superior, large and fine.

Wm. Heaver, John Sayers and F. Pentland—Longworth's Prolific, large and very good.

Wilson's Albany—Fine specimen, scarcely ripe, conical, very broad at the base, terminating with a sharp point.

Hooker—Color very dark, form regularly conic, very fine flavor.

Eleven new members were elected.

JUNE 11th.

President Hazeltine in the Chair.

Minutes read and approved.

Mr. Stoms commencing some remarks on the subject of Strawberries in general, spoke of the very large quantities of this fruit shipped to distant markets (generally sent into the city in the night,) by some four or five large shippers. Strawberry culture is, however, becoming much extended in the country and around neighboring cities and towns successfully, much credit being admitted to be due to this society for the circulation of valuable information on this, as well as on other subjects of horticulture. He, in speaking of Wilson's Albany, in his own experience, could recommend this variety very highly for productiveness. In notching Strawberries, we should distinguish well between those suitable for field and those for amateur use. He had found the Wilson short in its stem, and its flavor hardly a good one. It was, he thought, of a rather blunt acid.

Mr. Stoms then proceded to make comments on the pruning and management of the peach (induced by the call for the Committee's Report on the general management of fruit trees, which was, upon request, allowed more time to report). He did not entirely agree with Dr. Warder in some of his remarks in a letter addressed to E. J. Hooper, published in Hooper's Fruit Book, on his (Dr. Warder's) advice with regard to the nursery, trimming of the peach, and "involving the modern admirable ideas of pinching in and shortening of fruit trees, particularly applicable to the peach." He (Mr. Stoms) planted three years ago from two to three thousand peach trees, headed in, and each spring cut in one half of the last year's growth. He practiced this for three years. People pronounced them very handsome. But he thought they did not bear minute inspection. He considered the heading in principle an error. Cutting down to one foot in particular a mistake. He would leave three feet, and prune in one third in the spring. Still they, by this plan, throw out too many laterals, similar to trimmed cedar-trees, and the sun could not sufficiently reach the fruit. Would it be better to cut these out?

Dr. Warder replied in the affirmative. He had noticed peach-orchards five or six years headed low, and he observed the branches near the ground had become very defective. They, in his view, should not be cut down to three feet, but to twelve or eighteen inches. The only objection to this is that they are not so easily cultivated when branches are near the ground.

Mr. Schultz mentioned that his old orchards had been cut down and headed in. His young orchards had been cut down to three or four feet, according to the size of the trees. His old trees, which had been pruned this spring, had not any fruit. He had not found limbs low down defective.

Dr. Warder remarked that he never advised shortening in. In the winter and spring we pruned to produce growth, in summer to produce fruit. We should not neglect thumb-pruning in the proper summer months. In the third year the trees would produce plenty of fruit.—Rub out the laterals and there would be plenty of fruit. He would rather have branches near the ground. Long straggling limbs were good for the trees when they were broken off by limbs or weight of fruit. They would then commence a more compact growth. There was one inconvenience only in low-branched trees—the difficulty of getting at the worms, or borers—but there was no better mulching for trees than low branches. Another reason for his advocating low branches was to save them from the carelessness of work-hands, who would always bark high-stemmed trees. Follow up winter with summer pruning. It was a pretty piece of work, the rubbing off of the small shoots or inner limbs. Do this in June. Mr. Howarth repudiated the knife on the peach. In close nursery growth they naturally run up too high, but will crown themselves naturally if allowed proper space. He would not cut back; this makes too many spurs, and whenever this takes place, the natural and proper growth is changed.

Mr. Cary considered that there were two great difficulties in raising the peach: first, was the peach worm, which if rid of, we should be successful. Formerly peaches were never pruned, only the dead wood, but the worm makes it necessary to prune.

All the branches must be removed in the young tree—they only exhaust the tree—then cut off to about three or four feet, according to the strength of the tree. He would not cut so low down as Dr. Warder directs, but the worming must be attended to. Secondly, the difficulty is now the Curculio. The fruit is, at this time, dropping off terribly with this pest. In this State the destruction of fruit from this source is probably two millions of dollars. If the tree is very luxuriant pinch in for fruit. The buds next season will insure a good crop, if the fruit be not destroyed by Curculio, which is now become most woefully destructive.

Mr. Howarth thought much of the falling off arises from the sudden and severe changes of temperature.

Mr. Reily thought that cutting down as close as recommended by some, forms too dense a head. He liked heads about two feet from the ground. The worms must be got out. He finds some of the most healthy looking trees with a great many worms. He wants laterals low enough for shade. He trains their growth in a right direction, conical in shape, and to the south-west. The knife must be used to prevent too dense a head.

Mr. Heaver recommended rather low heads, which makes it much easier to prop and protect the fruit. The upper portion of the limbs must be watched for the worm, as well as the parts, near the roots. Draw up mounds of earth around the trunks, and level them again in the fall, before the grubs get into the roots. He supports shortening in the branches. Some laterals may be rubbed off to advantage. It is a simple buisness to form a slow head by commencing and continuing to shorten in one-third of previous year's growth.

Mr. Schultz advocated the use of coal tar after cutting out the worms; in six weeks after, recovery is certain.—Apply the tar eighteen inches above the ground.

Mr. Reily advocated caution with coal tar.

Mr. Stone remarked that peaches will stand coal tar, but not pears and apples.

Mr. Heaver had heard from good authority that garlic planted at the root of the peach tree was an effectual preventive.

Mr. Addis recommended two and a half feet from the ground for branches. The wind breaks off branches when too low. Horizontal branches will not break off so readily as more upright ones. He thought tar-paper would not hurt the trees, for the borer.

Mr. Cary said the prospects for a fine grape crop were very good; wood, foliage and fruit were perfect in condition. He had pruned less this year.

Mr. Hazeltine spoke of a fine crop of grapes in his neighborhood.

Mr. Reeder, on River Road, reported the same; also, Mr. Addis, Cheviot, and Dr. Sturm, in Delhi township, &c.

Resolved, That next Saturday be appointed for the bringing in of Raspberries for premiums.

Resolved, That all absent members of the Council be hereby requested and required to be more punctual in their attendance on the duties of their office for the future.

Resolved, That the grand fall exhibition of this Society be held at the time commencing the 6th to the 19th September next, inclusive.

REPORT OF FRUIT COMMITTEE.

From J. M. McWilliams—A basket of fine Raspberries, without name, resembling the Antwerp.

Seedling No. 1; a black fruit, apparently no improvement on the old black variety.

Seedling No 2; a light colored variety, tart, without flavor; small size.

W. F. Bowen—Catawissa.

A light colored variety, juicy, and of good flavor.

WM. HEAVER.
J. SAYERS.
F. PENTLAND.

The Committee recommended that the Raspberries for premiums be exhibited next Saturday.

REPORT OF THE FLOWER COMMITTEE.

Mr. A. A. Mullett—Double Sweetwilliam, five varieties, very fine; Clover Pinks, seven varieties of fine distinct seedlings, and the Calystegia Pubescens, that pest of the garden.

Dr. Warder exhibited Rye eight feet eight inches in height, grown on the farm of Mr. P. Cavagna, of Fifth Street.

The Society's pamphlet will be for distribution for members on their tables each successive Saturday.

Adjourned. E. J. Hooper, Secretary.

MASSACHUSETTS HORTICULTURAL SOCIETY.

OPENING OF THE SOCIETY'S HALL FOR 1859.

MAY 20th.

The display of Pot Plants this year far exceeded any thing of the kind that has taken place before; the specimens presented showing great care and a thorough knowledge of plant-growing.

From W. C. Strong, of Brighton, 1 Specimen Geranium, 6 Pelargoniums for prize, 3 Fuchsias, 2 Cineraria maritima, 9 Geraniums, 1 Azalea cassiflora, 2 Tree Carnations, 1 Cape Geranium, 2 Plectranthus tricolor, 1 Fuchsia reflex flora pleno.

From J. W. Foster, Dorchester, 1 Nierembergia gracilis, 1 Lycopodium denticulatum.

From James Nugent, Jamaica Plain, Cut Flowers in variety, Spireas, Roses, Daisies, Cassia, Pyrus japonica, Fuchsia, Pansies, Tulips, Verbenas; also 4 Hand Bouquets.

From William Wales, Dorchester, 6 Fuchsias, 1 Rhyncospermum jasminoides, 2 large Fuchsias.

From A. Apple, Cambridge, Fine collection of Pot Plants.

From Thomas G. Whytal, West Roxbury, 6 large Pelargoniums, 6 Fuchsias, 1 trained Fuchsia.

From A. Bowditch and Son, Roxbury, Fine display of Cut Roses.

From Joseph Breck, President, (not entered for competition,) Fine collection of Hardy Plants.

From Benjamin Bruce, Brookline, Fine collection of Hardy Plants. Also, Trollius europeus and White Vinca.

From E. G. Kelly, Newburyport, Magnolias in variety (fine).

From Gustavus Evers, Brighton, 6 Fuchsias, 6 Pelargoniums, 3 new scarlet Geraniums, 3 variegated Geraniums, 4 Rhododendrons, 8 Azalea pontica, 2 seedling Petunias, 12 Pansies. and Cut Flowers in variety.

From Hovey & Co., Cambridge, 20 Greenhouse Plants, 6 Cinerarias, 6 Pelargoniums, 6 Verbenas, 6 Calceolarias, 1 Begonia rex, a new and rare plant (fine).

From E. S. Rand, Dedham, 6 Pelargoniums, 6 Verbenas, 1 Specimen Verbena, 6 Cinerarias, and a collection of Greenhouse Plants, Cut Flowers, including Fuchsia, Cacti, Roses, Orchids, Combretum, Stephanotis, Gloxineas, Ericas, Verbenas, etc.

PRIZES AWARDED.

Pelargoniums: 1st Prize to W. C. Strong, Brighton, $6, for Una, Tojsey, Adril, Odin, Pictum, Novelty and Silver Queen.

2nd Prize to T. G. Whytal, West Roxbury, $4, for Evening Star, Virginium, Madam Von de Meyer, Barbette, Eulalie and Carlotte Grisi.

3rd Prize to Hovey & Co., Cambridge, $2, for Hero of Surrey, Perfection, Evening Star, Beauty Supreme, Emperor, Cambridge Pet.

Fuchsias: 1st Prize to William Wales, Dorchester, $8; the list of names not furnished according to rules.

2nd Prize to T. G. Whytal, West Roxbury, $6, for Venus de Medicis, Psyche, Alpha, Glory, Souvenir de Chiswick, Etoile du Nord.

3rd Prize to Gustave Evers, Brighton, $4, for Souvenir de Chiswick, Ajax, Fairest of the Fair, Pet of Nonantum, Venus de Medicis and Glory.

Calceolarias: 1st Prize to Gustave Evers, of Brighton, $5. None shown worthy the 2nd or 3rd Prizes.

Verbenas: 1st to E. S. Rand, $5, for General Simpson, Brilliant de Vaise, Celestial, Glory of America, Mrs. Holford, Imperatrice Elizabeth.

2nd Prize to E. S. Rand, $3, for (Rand's) Annie, Standard Bearer, Rosy Gem, Evening Star, Bostonia (Jackson's) Vicomtesse Emlyn.

3rd Prize to Hovey & Co., $2, for Ronian, Eclipse, Earl of Shaftesbury, Celestial, Annie and Monarch.

Specimen Verbena: 1st Prize to E. S. Rand, $2, for Sir Joseph Paxton.

Hyacinth Prizes not awarded.

Cinerarias: 1st and 2nd Prizes not awarded.

3rd Prize to Hovey & Co., $2, for Lady Paxton, Fascination, Admiral Dundas, Prince Arthur, Constellation and Seedling.

Greenhouse Plants, best 20 or more: 1st Prize to E. S. Rand, $15, for Fuchsias, Pelargoniums, Lycopodiums denticulatum, do. palmatum, do. caesium, Gypsophilla muralis, Ficus elasticus, Pilea muscosa, Ferns in variety, Gloxineas, Gesneria longiflora, Diplacus glutinosus, Tabernaemontana coronaria fl. plena, Cinerarias, Maxillaria flava, Acanthophipum bicolor, etc.

2nd Prize to Hovey & Co., $12, for Azaleas, Farfugium grande, Diffenbachia variegata, Geraniums, Oncidium flexuosum, Boronia vimiuea, Leschenaultia formosa, Fuchsias, Dracaena nobilis and terminalis, Escheveria retusa, Tetratheca verticillata.

3rd Prize to Gustave Evers, of Brighton, $10, for Cytisus, Thyrsacanthus rutilans, Ferns, Begonia nitida, Pinelia rosea, Begonia rex, Pilea muscosa Crassula fulgens, Cissus discolor, Allamanda Schottii, Pelargoniums, Geraniums, Primulas, Cinerarias, Azalea variegata, Diosma, Oxalis, Calceolaria, Rhododendron, Fuchsia, etc.

Cut Flowers: 1st Prize to E. S. Rand, $6.
2nd Prize to Gustave Evers, $5.
3rd " to A. Bowditch & Son, $4.
4th " to James Nujent, $3.
5th " to M. Trautman, $2.

Specimen Plants: 1st Prize to M. P. Wilder, for Stephanotus floribundus, $10.
2nd Prize to Wm. Wales, for Ryncospermum jasminoides, $8.
3rd " to Wm. Wales, for Fuchsia Venus de Medicis, $6.
4th " to E. S. Rand, for Oncidium altissimum. $4.

Tulips: Prize not awarded.

Hardy Azaleas: 1st Prize to Gustave Evers, $6, for Prince's Mariana, Optima, Pontica carnea, Prince's Louisa, Nosegay, Julius Cesar, Speciosa elegans.

Parlor Bouquets not awarded.

Hand Bouquets: 1st, to James Nujent, $2.
2nd, to T. G. Whytal, $1.

Shrubbery, Paonies and Hawthorns not awarded.

Gratuities,

For Display to B. Bruce,	$2 00
For Tulips to Hovey & Co.,	1 00
To W. C. Strong for Pelargonium Majestic,	2 00
To E. G. Kelley, for Magnolias,	1 00
To Dennis Murry, for a very fine collection of Fungi,	6 00

Mr. Murry had on exhibition 226 varieties of the Fungi, all correctly named, which he has collected in and about Boston. They were decidedly one of the features of the Exhibition, and attracted much attention.

To Mr. Trautman, for Ariculas,	3 00
To Hovey & Co., for Begonia rex,	6 00
To T. G. Whytal, for trained Fuchsia, Glory,	4 00
To J. W. Foster, for Plants,	1 00

E. S. Holbrook, of Randolph, exhibited some very fine dishes of George IV., Early Crawford and Coolidge Favorite Peaches. Also, some fine Tomatoes and Cucumbers.

Joseph Breck exhibited some fine dishes of Hamburg and Chasselas Grapes.

P. F. Allen, of Salem, exhibited some fine Cherries, Nectarines, Peaches and Grapes.

Josiah Crosby exhibited some fine Lettuce, Radishes, Onions, etc.

P. Barnes exhibited stalks of the (new) Prince Albert Rhubarb.

[We are indebted to our valued correspondent in Boston for the above report. It is a model which we should be glad to see oftener imitated. The public look to Horticultural Societies for guidance; and it is, perhaps, more important to them to know the *kinds* of plants that obtained the premiums, than who obtained them.—Ed.]

HAMILTON HORTICULTURAL SOCIETY, Canada.

The Second Annual Exhibition will be held on the 21st of July. Besides the regular premiums, there are many by private individuals, to be competed for.

The Society does not allow of competition from any but residents of Canada; but we gather from the By-laws, that competition is not restricted to members, as is often (we think injuriously) done in other societies. We wish every success to their meeting.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. AUGUST 1, 1859. VOL. I.---NO. 8.

CALENDAR.

8th Month, August, 1859, 31 Days.

Moon's Phases		Boston.	Philad'a.	Baltimore	Charl'ton
	d	h m	h m	h m	h m
First Quarter.	5	10.38 mo	10.21 mor	10.15 mor	10.03 mo.
Full.	13	11.50 mo	11.33 mor	11.27 mor	11.15 mo.
Last Quarter.	21	9.00 mo	8.45 mor	8.39 mor	8.27 mo.
	28	0.30 mo	0.13 mor	0.07 mor	11.55 eve

Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	5	4.56	7.15	5.01	7.10	5.03	7.08	5.16	6.54
	13	5.04	7.05	5.09	7.00	5.11	6.58	5.21	6.46
	21	5.12	6.54	5.17	6.49	5.19	6.48	5.27	6.38
	28	5.20	6.42	5.23	6.39	5.25	6.38	5.32	6.31

This Calendar will answer for the sun for any place in the same latitude.

Hints for August.

FLOWER GARDEN & PLEASURE GROUND.

In our Specimen number we gave a few general hints for the many persons who are providing themselves, near large cities, with small places, and may not have the opportunity of employing superior talent in the laying out of the grounds. We have promised to extract, from time to time, the chief papers given in it, so that they may be bound up in the present volume. As the season is now approaching when improvements are being projected, we append the following remarks as being now in season for consideration:

"Persons who have small places, are often exercised as to the best way to lay them out. A too common error is to attempt too much. Having read of fine specimens of taste, or imbibed a love of the art from some superior work on Landscape Gardening, or some friend's extensive country-seat, it is quite natural to wish to make the most of a limited plot. And this making the most of the thing implies a good deal, while it leads into many errors. The *relation* of the *means to the end* should never be lost sight of, and nothing attempted that has not some well-defined object.

"When a house is built, the first object is to connect it with the public road, with the stable, and with the offices. In laying out these roads, convenience and beauty must be consulted. The first suggests to go 'straight on;' the last whispers, 'curve gracefully round.' Convenience being the chief object, must be respected; and whatever deviations from the straight line is allowed to the importunities of beauty, should be done from a seeming compulsion. Hence the curve should have its salient point filled with a heap of roots or rocks, or a thick mass of shrubbery; or, what is still better, the soil should be raised to form a rise or knoll, as if the road had to be taken around to avoid the obstruction. Much may be done for a small plot by this plan of making the surface irregular. A dead level, or a regular plane, looks smaller than it really is. Around the house, it should be so, as a sudden transition from the delicacies of art in the building, to the roughness of nature in the grounds, is offensive,—but at a little distance off, very lively effects may be obtained by taking off a little soil here, and adding there, so as to make the surface broken and irregular. The effect may still further be increased by planting the rises, and leaving the lower surfaces bare. To still further give the idea of extent, shrubbery should be planted in irregular masses to conceal the fences and boundaries; and many objects on the place itself may be partially concealed by planting all with the view of exciting the curiosity to know 'how much more is beyond.' Besides the mere purposes of shade from the sun, and screen from winds, large growing trees should not be employed in decorating the property, as all large objects lessen the apparent size of the lot. Besides, small and medium growing trees afford a greater variety.

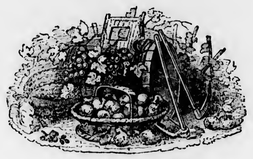
"The walks being decided on with a view to convenience and beauty, and the general idea of giving the plot the appearance of as much extent as possible, being kept in view, it may be useful to say something as to the making of walks and lawns, and preparing the soil for trees and vegetables. A carriage-road on a small place should be at least eight feet wide. If so large, or the road so long that there is a chance of carriages meeting, it should be fourteen feet. There is not much use in underdraining roads; it is better to make provision for the water to run freely over the surface. The road should be dug out six inches deep, and filled up entirely to the surface with rough stones, the harder the better. When full, the surface should be broken very fine with the hammer. The surface stones are usually broken to the size of hens' eggs, but if still smaller, so much the better. Then sand should be put over the broken stone sufficient to fill in the spaces, and over the whole enough gravel or whatever material is employed, to just cover the sand; so that, when finished, the broken stone will not be more than a quarter of an inch, at most, beneath the surface.—Should the road be steep, provision must be made to guard against washing by heavy rains, either by small gutters of stone or brick, or by inserting cross bars occasionally to carry the water over the verges of the road. It may be further remarked, in road-making, that the extent of a lawn is apparently increased by having the walk or road sunk some inches below the general surface. On the other hand, a full walk seems to lessen the space. Small foot-paths need not be dug out over four inches, but in other respects, they should be constructed as the others. Roads, in all cases, should have both sides nearly, or quite, level,—where one side is higher than the other, besides the unpleasantness to pedestrians, carriages wear such roads rapidly away, by the weight being so much greater on the lower wheels.

"In preparing the grounds, it should be remembered that grass and trees are not only required to grow therein, but that they must *grow well*. The top soil of the lot is often covered by the soil from the excavations, trusting to heavy manuring to promote fertility. But this is a too slow and expensive process. The top surface soil should, in all cases, be saved, and replaced over the baser soil. Also, where it is necessary to lower a piece of ground, the top soil should be saved to place over again. The depth of the soil is an important matter, both for the trees and the lawn. It should be at least eighteen inches deep. In shallow soils grass will burn out under a few days of hot sun. In a soil eighteen inches deep a lawn will be green in the driest weather. For the sake of the trees, also, the ground should be not only deep, but rich. If from thirty to forty loads of stable-manure to the acre could be appropriated, it would be money well spent. Life is too short for it to be an object to wait too long for trees to grow, and planting large ones is an expensive, as well as unsatisfactory, business. A tree in a rich and deep soil will grow as much in one year as in five in a poor one. So in preparing a lawn, it is fortunate that, while aiming at the best effects, we are helping our trees also. It is generally best to sow for a lawn than to sod, where much of it has to be done. The edges of the road must, of course, be sodded, the balance neatly raked over and sown. The best kind of grass to be employed in seeding is a disputed point, and it will, no doubt, depend in a great measure on the locality. Philadelphia and northward, the perennial rye grass is excellent. It commences to grow very early, and has a peculiar lively, shining green. South of Philadelphia it is very liable to get burned out in summer, and the Kentucky blue grass would be much better. It is much the best to have but one kind of grass for a lawn, provided it is suited to the locality. A mixture of kinds is apt to give a spotted and variegated character, not at all pleasing. Some people like to see white clover growing thickly in a lawn, and others object to any thing but green. However, if a good grass-rake is employed freely in summer time, the heads of these flowers may be kept from expanding. Where there is a prospect of a month of growing weather, lawns may still be sown with grass seed,—the clover, where used, to be kept for sowing in April or March next. A small quantity of rye should be thinly sown with the grass, which, by the shade it affords, will prevent the grass from being thrown out by the frost. The rye must, of course, be closely cut in the spring, to allow the grass to get ahead of it."

The latter end of August is one of the best seasons of the year to transplant evergreens. The young growth of the past season has got pretty well hardened, so as to permit of but very little evaporation, —and the earth being warm, new roots push with great rapidity, and the tree becomes established in the ground before cold autumn winds begin. The chief difficulty is that the soil is usually very dry, which prevents much speed with the operation; and the weather being usually very warm, the trees have to be set again in the ground almost as fast as they are taken up; so that it is not safe to bring them from a distance. It is as well, therefore, to make all ready in anticipation of a rain, when no time may be lost in having the work pushed through. Should a spell of dry weather ensue,—which in September or October is very likely,—one good watering should be given, sufficient to soak well through the soil and well about the roots. A basin should be made to keep the water from running away from the spot, and to assist its soaking in. After being well watered, the loose soil should be drawn in lightly over the watered soil, which will then aid in preventing the water from drying out soon again.

As soon in the fall as bulbs can be obtained, they should be planted,—though this will not generally be the case till October,—but it is as well to bear in mind that the earlier they are planted, the finer they flower.

Towards the end of the month, and in September, evergreen hedges should receive their last pruning till the next summer. Last spring, and in the summer when a strong growth required it, the hedge has been severely pruned towards the apex of the cone-like form in which it has been trained, and the base has been suffered to grow any way it pleases. Now that, in turn, has to come under the shears, so far as to get it into regular shape and form. It will not be forgotten that, to be very successful with evergreen hedges, they ought to have a growth at the base of at least four feet in diameter.



FRUIT GARDEN.

August and September are favorite months to plant out Strawberries, with those who desire a crop of fruit the next season. In making a strawberry-bed, a warm, dry spot of ground should be chosen, with, if possible, a good loamy or clayey subsoil. A moist, wet situation is very unfavorable. It is best to subsoil at least two feet deep, and if the soil is poor, let it be well enriched with well-decayed stable manure. In setting out, take care that the plants do not become dry from the time they are taken up till they are replanted, and see that they do not wither afterwards. Many persons cut off the leaves, if they are afraid of their wilting under hot suns, but a much better plan is to shade. Inverted 4-inch flower-pots are excellent for this purpose; they may be taken off at night. The dews will so invigorate them, that the shade will only be required for a few days. Sometimes in September they may need a good watering; but this should never be attempted unless a thorough saturation of the bed is given; and in a few days after, the hoe and the rake should be employed to loosen and level the surface, which the heavy watering will, in all probability, have caused to bake and become very crusty.

Strawberries are best grown in beds about four feet wide for the convenience in gathering the fruit, and giving them the best of cultivation. About three rows in a bed, and the plants twelve inches apart in the row, will be a good arrangement.

As soon as the fruit has been perfected on the Raspberry, the canes that have borne should be at once cut out. Some kinds throw up suckers very freely, and by this means rob one another and cause a very poor crop to be produced the next season. No time should be lost in thinning out the weaker ones, and only enough canes left that will be required to produce a crop the next season. The Raspberry ought to be so treated in the summer, that no pruning will be required in the spring but to shorten the ends of the canes. In rare kinds, where it is of more importance to get up a stock of young plants, than to get a crop of fruit, this advice will not, of course, apply.

Blackberries will, in the main, require very much the same treatment as the Raspberry. They are also very liable to sucker up more than is desirable, and much attention will be required to keep them within due bounds. Neither of these two kinds of fruit should be planted near a lawn, as the roots, if they once get into the grass, are very difficult of eradication and as troublesome as the vilest weeds.

Many kinds of fruit trees that have arrived at a bearing age, may perhaps be growing very vigorously and producing very little or no fruit. Those who have read our remarks in past numbers, will understand that whatever checks the wood-producing principle, tends to throw the plant into a bearing state. For this purpose, summer pruning is often employed, which, by checking the most vigorous shoots, weakens the whole plant, and throws it into a fruitful condition. The same result is obtained by root pruning, with this difference, that by the last operation the whole of the branches are proportionately checked, while by pinching only the strong-growing shoots, the weak ones gain at the expense of the stronger ones. Presuming that the branches have been brought into a satisfactory condition in this respect, root pruning may now this month be resorted to. We cannot say exactly how far from the trunk the roots may be operated on, so much depends on the age and vigor of the tree. In a luxuriant, healthy tree one-fourth may be safely dispensed with. In a four year old standard Pear tree, for instance, the roots will perhaps have reached four feet from the trunk on every side. A circle six feet in diameter may then be cut around the stem, extending two feet beneath the surface. It is not necessary to dig out the soil to accomplish this result; a post spade, or strong spade of any kind, may be driven down vigorously, describing the circle, and doing the work very effectually.—Of all trees, the Peach is as much benefitted by root pruning as any.

Most of the diseases the Peach tree groans under arise from the effect of hard winters on the over-vigorous and half-ripened shoots. Root pruning has always the tendency, not only to throw a tree into bearing early, but also to ripen the wood early in the season, and before the frost can act much to injury.

The Grape vine at this season will require attention, to see that the leaves are all retained healthy till thoroughly ripened. It is not a sign of healthiness for a vine to grow late; on the contrary, such late growth generally gets killed in the winter,—but the leaves should all stay on, to insure the greatest health of the vine, until the first frost comes, when they should all be so mature as to fall together. Frequent heavy syringings are amongst the best ways to keep off insects from out-door grapes, and so protect the foliage from their ravages.

HOT AND GREENHOUSE.

Preparations must now be made with a view to stocking the houses for the next winter and spring's use. Geraniums of all kinds may now be readily struck. A frame in a shady place, set on some light sandy soil in the open air, affords one of the best places possible for striking all kinds of half-ripened wood. A partial shade is at all times best for cuttings at the start, though the sooner they can be made to accustom themselves safely to the full light, the better do they usually do.

Seed of many things may also be sown for winter and spring blooming, particularly Cineraria, Calceolaria, Pansy, Daisy, Chinese Primrose, and some of the annuals. Great care is necessary with the Calceolaria. The seed is so small, that it rebels at the smallest covering of soil. The best way is to sow it on the surface, water well, and then cover with a pane of glass until fairly germinated; this will prevent evaporation and consequent drying of the seed. Almost all kinds of seeds germinate most readily in partial shade; but as soon as possible after germination, they should be inured to as much light as they will bear.

Many kinds of greenhouse plants, as Oranges, Lemons, Camellias, &c., may be inarched or budded at this season. The process of inarching is simple, and consists merely in bringing the shoots of two different plants together. The bark is very lightly shaved for half an inch or more on each shoot, which are then both tied together, and in about two months the union may be examined, and if found sufficiently strong, the scion may be separated and suffered to go for better or for worse with the stock you have selected for its helpmate through life.

VEGETABLE GARDEN.

Towards the end of the month, a sowing of Spinach may be made in rich soil, which will come in for use before winter. That desired for winter and early spring use, is usually sown in September in this region. A few Turnips may be also sown for an early crop, but will be hot and stringy unless the soil is very rich.

As fast as Endive is desired for salad, it should be blanched. Matting thrown over is the best for this purpose, as the plants are not so liable to rot as when pots or boards are employed. In cold or mountainous regions, Melons are hastened in the ripening process and improved in flavor, by a piece of tile being placed under the fruit.

Celery will require earthing up as it grows, to get it to blanch well. It is not well, however, to commence too early, as earthing up tends, in a slight degree, to weaken the growth of the plants. Take care, also, not to let the soil get into the heart in earthing, or the crown is apt to rot.

Towards the end of the month, in the Southern States, many will commence to sow Peas, Beans and other crops to stand through the winter, which those in the Northern States usually put in during March.

At this season of the year, more than perhaps at any other, is it important to hoe and rake between rows of growing crops. A loose surface soil not only admits the various gases that the roots luxuriate in, but it also prevents evaporation and checks a too great absorption of heat, and then, besides all this, the weeds are kept down, and neatness and order reigns. After every heavy shower, if the time can at all be spared, the hoe and the rake should be freely employed.

Communications.

GRAPE BORDERS.

BY V. V., YONKERS, N. Y.

Mr. Editor:

My attention has been drawn to Mr. John Gray's article on the Cultivation of the Grape Vine, in the April number, as taken from the *Canadian Agriculturist;* as, having your sanction and approval, we had been inclined to think the more of it.

The system adopted in the formation of vine borders, so far as drainage is concerned, I entirely agree with; but when Mr. Gray comes to lay on layer upon layer "of stable-yard manure, best soil taken from the borders, manure, lime, rubbish, ashes, and thirty bushels of bone shavings, finishing off the surface with a good layer of turfy loam," I confess I felt much surprised, and thought I must have mistaken the sense in reading. But I read it over again to the same effect. I am afraid I do not understand Mr. Gray after all, though I have made between 6 and 7000 feet of vine border within the lapse of six years, and planted and fruited a goodly share of the vines. Now, the mere laying on of layer after layer of manure, etc., sounds strangely. Has Mr. John Gray forgot to tell us to turn over, mix well, and thoroughly incorporate all those layers together? or does he think it unnecessary? If he does not think it necessary, I should disagree with him, having always deemed it of much importance. I once knew of a practical gardener planting Roses in a layer of sand, leaf-mould and stable-yard manure, finishing off with a layer of garden soil. As might be expected, the roses never amounted to any thing until they were taken up, when the cause of failure was detected. The stratums or layers were then well incorporated together and mixed with the soil, and the roses planted in again. In a short time they showed visible signs of improvement in abundance of flowers and a strong, healthy growth. Had we known whether it was the practical gardener or amateur who was writing, we might know where to find the mistakes; but as I will have something more to say about vine borders and grape-growing another time, I will content myself for the present. V. V.

[Our correspondent is one of our best practical grape-growers, and we shall be pleased to have his promised favor.

In reference to Mr. Gray's article, we may say that it is perhaps hardly fair to allow comments on what was, as we stated, only extracts from the article itself; but we are sure Mr. Gray would be unwilling for any misconception of his practice to exist. Our own impression was that Mr. Gray intended it to be *understood* that the ingredients were well mixed together. However, Mr. Gray is a thoroughly practical and reliable authority, and we hope he will satisfy our friend V. V. as to what his ideas really are on this point.—Ed.]

NOTES ON THE STRAWBERRY.

BY JOHN SAUL.

Washington City, D. C., June 2, 1859.

Thomas Meehan, Esq.:

Dear Sir—I send you this day, by express, a box containing three varieties of foreign Strawberries.

Victoria (Trollope's).—The fruit of this excellent sort was grown by Mr. William Cammack, of this city, an extensive market gardener, who cultivates it very largely, together with Alice Maud, Vicomptesse Hericart de Thury, River's Seedling, Eliza, &c.

River's Seedling Eliza.—The fruit sent are from my own grounds, where it has proved itself worthy of extensive culture. It is very hardy, not liable to burn, a good cropper, the fruit of a clear bright scarlet, large size and exquisite flavor.

Comte de Flandres.—Another superb sort. This fruit, like the last, is of my own growth, and very good. This variety I have grown some two or three years, and it has fully established itself as one of the most desirable. No strawberry can be more hardy. Cold appears not to affect it; whilst it is proof against the most scorching suns, a good bearer, fair size, bright color, firm flesh, and exquisite flavor.

Vicomptesse Hericart de Thury is a little "*passé,*" or I should like to have sent some fruit. It has become very popular with our best market gardeners, who grow it extensively. One of our best growers a few days since remarked to me, that he thought it the hardiest of strawberries, whilst it passes through our hottest weather equally well. Very productive, fruit of good size, bright color, firm flesh, and richest flavor.

The rains of the past few days have injured the flavor to a considerable extent, though I have no doubt there is yet sufficient left of the latter to show their superiority to the common scarlet sorts generally cultivated. It has been asserted that foreign strawberries cannot be successfully grown in this climate, which is a mistake. With *good culture,* they may to great perfection, as has been amply proved the present season by the best market gardeners around our city: Messrs. Wm. Cammack, John Slater, Wm. Little, &c.; and my own efforts at culture have been crowned with equal success. Not only have English and French varieties done well, but the present season they have borne much better than the tasteless native sorts

Respectfully yours, John Saul.

[We are sorry to say, that the Strawberries had been so roughly handled at the express office, that they were utterly spoiled on receipt. We notice, in various quarters, a tendency to modify the old idea that no foreign strawberries succeed here, and Mr. Saul's observations in this connection will be read with much interest.—Ed.]

Honors to a Gardener.—The University of Leipsic has created Mr. Rudolph Siebeck, Doctor Philosophiæ and Magister Bonarum Artium. Mr. Siebeck is a landscape gardener, and has earned a reputation by his works on the art.—*Bot. Zeitung.*

HONESTY VERSUS CALUMNY.

BY H.

For some time past a certain class of writers in several of the agricultural periodicals have been in the habit of applying the epithets of swindler, cheat, humbug, &c., to any one who is willing to acquaint the public with a new variety of fruit, which, in his estimation, is worthy of introduction; and more especially on nurserymen are these aspersions cast.

Having noticed, time after time, many of these articles, I have patiently waited in the vain expectation that some more competent person would undertake to expose their error, until "silence assumes the form of cowardice," and so concluded to use my humble endeavors to convince them of the impropriety of their course of conduct.

I am fully aware that it is a failing with the generality of fruit-growers, to exaggerate the qualities of a new variety, and to think their own fruits like the good matron's first-born—*a little the finest* ever known. We should, therefore, guard our feelings and judgments and adhere strictly to the facts in every respect, when introducing a fruit for the first time; but if the writer should slightly over-rate his own productions, or, as in many instances that have come under my observation, confine himself undeviatingly to the truth, he is just as liable to come under the ban of these over-wise critics in the one case as in the other. My attention was particularly drawn to an article in one of our agricultural papers lately, which I will use as an example. A correspondent, after having praised the editor for his efforts to suppress the extension of so many new grapes, makes the following remark:

"By the way, allow me to say that I think you have hit some of the grape puffers about right, and I am surprised that other horticultural journals should allow interested parties to make such untrue statements, without one word of caution to their readers. But perhaps the subscribers of such journals put no confidence in them, and therefore are not misled or cheated by this silence or half-way endorsement."

The above was written in reference to an article from the pen of one of our most intelligent and honest pomologists, and *one who has no interest in selling plants of any kind;* who, after taking the pains and expense to collect every variety of native grape known, is classed with the grape-puffers at the commencement of his interesting articles on the subject. Now, this is certainly all wrong; for in what other way can fruit-growers throughout our country become acquainted with the new varieties as they originate, unless the attention of the public is invited to them in this manner?

Many ambitious fruit-growers often complain of the exorbitant price charged for a new fruit. My advice to such is, to exercise a little patience until the stock of plants in the country enables the cultivators to reduce the price, which is generally the case in one or two seasons, and not find fault with the introducer who has taken the trouble to benefit us all by the addition of a fruit which is, perhaps, an improvement on our old sorts, and therefore ought to recompense its originator by an extra price when first brought out.

We can all probably remember when the Concord Grape was first introduced by Hovey & Co., of Boston; and, although it was not equal to the extravagant description that heralded it into existence, yet I will venture to say that no one who has given it a fair trial, would be willing to discard it from the list. At that time the proprietors were assailed with just such a tirade of abuse as before stated, and it is quite time that they should receive some credit for their valuable acquisition.

That the old adage of "There is cheating in all trades but ours" will not hold good in the nursery business, I am fully aware; but notwithstanding the dishonesty of a few "*brother chips,*" and they are few, (much to the credit of the trade,) I doubt very much if any class of business men ever meet in conventions and conduct the proceedings with more charity and good-will than ours does.

Very respectfully, H.

[We are averse to the subject of our friend's communication, but give it insertion because it has reference to a particular article which originally appeared in our columns, and because, though the provocation is great, he discusses the subject in a manly and courteous manner.

In our opinion, the matters are not worth so much prominence; and we are sure that if the editors and contributors of the journals alluded to would write with less haste, and more reflection, they themselves would be ashamed to employ many of the terms they use, and blush for the quarrelsome habit such hurry engenders.

We often hear such remarks as "He is a nurseryman, who has something to sell. Do not believe *him.*" "This one is an amateur, who would give a fortune for praise. Do not mind what *he* says." *This* one is selfish—*that* one is selfish. Pshaw! is not every motive, to a certain extent, selfish? Money is the selfish motive that moves some; with others fame, —and the selfish motive with more is the gratification which doing good affords. But what has an editor to do with *motives?* We are, perhaps, "green." In our simple-mindedness, we thought an editor's duties were to deal with *facts.* We have no disposition to learn the contrary. And we say to our friends, give us as many of them as you can, without fear or favor. If you can show us that twice six make a dozen, and we believe such knowledge would interest our readers, we shall not stop to inquire whether you have twelve trees to sell, whether you desire to give them away, or whether you simply desire to do a good turn by spreading information.

We are heartily sick of this everlasting disposition to suspect every body and every thing that comes before the public. So far as the *Monthly* is concerned, no such mistake shall characterize its course. We ask simply for the truth. If any one attempts to deceive us, we think we have sufficient knowledge to detect the danger when it comes, without continually shouting, "Wolf! wolf!" when there is no wolf.

Our correspondent is one of our most respected and talented nurserymen, and sends his name with his communication. As, however, he discusses general principles only, we have not thought it necessary to ask him to append it, though we are sure he will have no objection to our giving it to any one who may think they have a right to ask for it.—Ed.]

CLIMBERS.

BY G. B.

Dear Editor:

One of the many am I, who heartily subscribe to your editorial "Shrubbery" in your May number. Shrubbery is not understood; but I hope you meant to include in that name also the smaller trees, such as Hazel, Fringe trees, and the like?

[Yes, certainly.—Ed.]

I am bold enough to address you now in behalf of another form of vegetation, ill understood, misunderstood, or, when understood, often neglected. This would make three nice *heads* for a horticultural preacher to build a sermon on. No, sir, you need not dodge; I am not going to afflict you with unripe sermons. I rather wish to draw you and your readers' attention to my *text* to think it over and work it out for themselves. A few facts will suffice.

England, in so many points charming to the eye of him who loves our common Mother Nature, is rich in climbers. The Ivy and the Mistletoe (the last though not exactly a climber) abound and hiding the naked trunks of the trees, gracefully embracing old Gothic turrets, clothing ugly brick work and wall, winter and summer, for the pleasure of the beholder. What is already fine, is rendered by them more beautiful; what is plain and repulsive, becomes pretty and endurable.

Again, our Southern States show us the perfection, the finish which tree-mosses give the grove as they

hang down like woman's hair, connecting tree with tree, weaving into one grand design the whole avenue or grove. Not unfrequently they remind us of cathedral architecture, or of fairy curtains, or of the *waves* of vegetation.

If I were called on to define French gardening, I would say it is the attempt of outnaturing Nature, very much in consonance with their pathos done in rhyming Alexandraics. Happily, in this country we lean to our forefathers, the British, and the natural strain of Shakespeare has its counterpart in our predilection for Park scenery. But we have neither the moist clime of those damp, small isles, nor the rank thrift of Southern soil; hence we need climbers.—Gentle artists, otherwise called gardeners, *sometimes* called amateurs, here step in and supply what nature denied our latitudes.

Mr. Editor, I am sorely tempted to open here a panting sluice of thoughts. The instances where climbing plants will give beauty are so many, and the task to point them out so grateful! But behold the strong man who curbs his inclination, and knows what a reader's patience and an editor's space is. I have the satisfaction of breaking off, Mr. Editor, and with due regard, I am, &c., G. B.

[Cruel, cruel G. B., to place so sweet a chalice to our lips, and then remorsely snatch it away! "The reader's patience," and the "Editor's space," forsooth! You cannot escape on such pleas as these, G. B. We must hear from you again.—Ed.]

ALBANY SEEDLING STRAWBERRY.

BY JOHN WILSON.

Albany, July 5, 1859.

If my memory serves me right, the Wilson Albany Strawberry was produced about the year 1852, by my late father, James Wilson. He was always confident that it was produced by a cross between Black Prince and Hovey's Seedling.

It is an enormous bearer, a fine showy fruit of a deep ruby color when fully ripe, and in flavor equal to the best. I have sometimes heard it remarked by persons whom I would suppose were good judges of fruit, that the fruit of this Strawberry was rather inclined to acidity; but I have always been able to convince them of their mistake by presenting specimens of fruit "*fully ripened.*" It is a natural peculiarity of this variety to color its fruit very early, and many suppose the fruit to be ripened when it has turned red. But this is not the case. The seeds should become a dark brown color before the berry is fully ripened. I suppose this has given rise to the opinion of dealers in the New York market, that "the Wilson Albany Strawberry" is better when it has lain in the market for a day or so. It then becomes fully ripe. In size it can compare favorably with any other strawberry of an equal productiveness, the general run of the berries being 3 or 3½ inches in circumference, and not unfrequently do we meet with them 4 inches in circumference.

I wish to state but one fact before closing. A gentleman of our vicinity, wishing to prove to his own satisfaction the productiveness of this variety of strawberry, caused to be planted on his farm (the soil being a slaty loam, on which strawberries had never to his knowledge been planted,) about three-fourths of an acre of our strawberry. His crop the first year after planting, or rather the same year when planted, (he having planted them in the spring,) was very light; but the year following he stated to me the product of his bed, which was 70 bushels, as nearly as he could compute. This was the result of a bed planted on ground receiving no manure except the sod, which was inverted by ploughing the bed.

Yours truly, John Wilson.

[Few fruits have earned their way to fame so determinedly as Wilson's Albany Seedling Strawberry. Without any extra puffing, or great exertions to make it known, it has found its way into every corner of this great continent, and wherever it is known, is esteemed. We think sufficient honor has scarcely been rendered to the benefactor whose skill has furnished us with so great an advance in strawberry improvement. Had Wilson lived in Cincinnati, where they know how to do these things handsomely, long before this would the public have known something more than the bare fact that it "was raised by the late John Wilson of Albany." Anxious to place on record all the facts connected with its history, we asked our friend (the present Mr. Wilson) to give us the particulars, which we give above. We think we can beat his friend. One of our neighbors on Chestnut Hill, who has three beds of Albany, Hovey and Peabody's Seedling,—the whole comprising a tract 33 by 36 feet,—gathered, the past season, near four hundred quarts—the Albany bearing the greatest proportion.—Ed.]

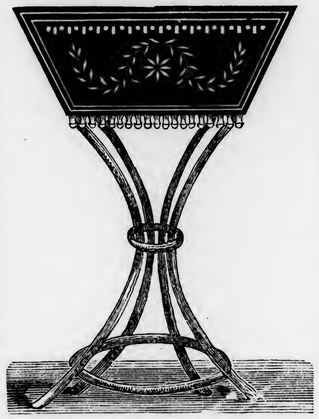
RUSTIC ADORNMENTS.

BY A LADY SUBSCRIBER.

Mr. Editor:

Your insertion of my last communication, and your invitation to the ladies to contribute to your column on Rustic Adornments, emboldens me again to send you a few lines and a description of one or two articles that I have met with lately, and which I will endeavor to describe as well as I can with the help of the enclosed sketches.

Fig. 1.



The first (fig. 1) is of a Flower Stand to hold plants in bloom in pots, the interstices between the pots to be filled with moss. The drawing will sufficiently describe the shape and construction of the stand,—the upper part or box being made of ordinary pine board, painted over with gum shellac dissolved in alcohol, with a little burnt umber in it to give it the color of walnut or rosewood. The lower part or feet are made of small hickory or oak poles, which, I am informed, must be soaked in water to make them bend easily.

The ornamental work is formed of split rattan or bamboo, such as is used by chair-makers to seat chairs with.

Fig. 2.

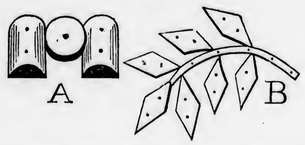


Fig. 2, A shows the mode of forming the ornament around the upper edge; B that of the centre pattern, the stem or vine being formed of a long piece, and the leaves of small diamond pieces. These pieces are put on with small nails or sprigs, and are better than glue, as the water from the flowers does not loosen them. If the ornamental work is put on neatly and gracefully, it has a most beautiful appearance, resembling, at a short distance, rosewood or walnut inlaid with boxwood. The ornamental work is put on the front and back of the box part only, and on the ends are handles, somewhat on the principle of trunk-handles, formed of bent wood with the bark on. Around the bottom of the box is a row of scales of pine cones.

Fig. 3.

Fig. 3 is a drawing of a Lilliputian Flower Vase, formed of the halves of two acorn cups, one with the mouth of the cup up and the other down. The acorn cups must be divided vertically, so that when glued on a card they will only project out one-half. It should be filled with small grasses, mosses and lichens in bloom.

Fig. 4.

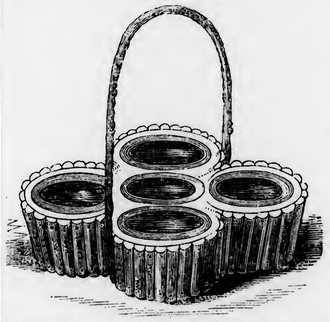


Fig. 4 is a sketch of a small Stand for Cacti, which I bought in the street last fall. It holds five little flower-pots of not more than three inches in diameter. It is a very cunning looking little thing, and has been much admired. The top and bottom are cut out of thin board, not more than half of an inch thick, with circular holes in the upper one to receive the pots, very much in the same way that the cruets or bottles are arranged in a castor, and the sides are covered with small twigs split down the middle, with the bark on, nailed on with small nails. After the pots are inserted, moss is placed around the top to fill up the interstices.

CHEAP GLASS HOUSES.

A correspondent wishes us to procure from the writer of a communication in our Specimen number, signed "Schuylkill," some further information on the subject of cheap greenhouses or pits. We have handed his letter to the writer of the article referred to, and he has returned it to us, with the request to republish the article if we think proper to do so, as it contains all of his experience on the subject. He also says:

"I would, however, remark that the flue along the back has been objected to, and *theoretically* this objection is a valid one; but *practically*, the gain of the room occupied by the flue *under the glass* is an important consideration, and not the least inconvenience or

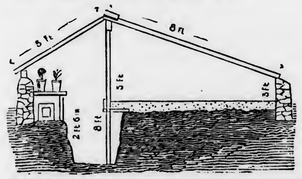
difficulty has been experienced from its location in the back of the house. The flue being, for the most part, on or below the level of the front stage, the heat is diffused throughout the whole house. For plant culture, the front wall need only be carried up to the top of the ground, and a wooden front, with ventilators or moveable sash, substituted; but for forcing grapes, which was the purpose this house was intended for, front ventilation had better be dispensed with. Should a double pitched roof on the same principle be desired, ventilation is supplied from the front and from a row of small sash ventilators, three feet apart, along each side of the top of the roof, working on pivots or connected together by a rod and sliding, as shown in your article on 'Things around Baltimore.' Some persons object to houses built on this plan, on the ground that the sash cannot be taken off and stowed away during summer. Now, I believe that it is better, on many accounts, to leave the sash on. In the first place, many plants absolutely require to be kept in-doors during summer; and in the next place, the sash being kept on, protects the staging and wood-work of the house—which costs as much, or more, than the sash—from the weather; and thirdly, more glass is broken by removing and storing than if they were left on, to say nothing of the unsightly appearance a house presents with the sash removed."

As a large number of our subscribers have not seen our Specimen number, containing the article referred to, and as the subject possesses an interest to many at this season of the year, we take pleasure in republishing it, hoping that others will give their experience on so important a subject.

CHEAP GLASS HOUSES.

BY SCHUYLKILL.

I send you a plan of a frame or pit that I have just erected, and which, although not new in its general plan, differs in some of its details from any thing I have yet seen. It possesses two important advantages:—it can be erected in a very short space of time, and costs far less than one constructed with moveable sashes. And now to the details.



Get some second-common white pine boards 16 feet long and 1 inch thick, and have them ripped up into strips either 2½ or 3 inches wide, (if you use 8 x 10 glass, 2½ inches will answer, but if larger glass is used, 3 inches); have one *edge* of these strips rebated or "rabbitted" with an ordinary carpenter's jointing-plane or plough, so that the edge of the strip will form a perfect sash-bar, and if you do not care for appearances, the other edge and sides of the strip can be left rough and unpainted. Divide these strips into two equal lengths of 8 feet each, and these will answer for the sash and rafters combined of the front pitch of the roof. The back pitch is formed of inch flooring, jointed, and laid with the planed side out. The front and back walls, if stone is plenty, can be built of dry stone, that is, without mortar, and dashed up afterwards, or of brick, or of wood on a stone foundation.

Ventilation is supplied through panels in the back part of the roof, say 3 feet wide and 8 feet apart, made to slide or throw back with hinges. These, with a door at each end, will furnish ample ventilation. The plants can be either planted in the open ground, or, if in pots, set on a bed of cinders two or three inches deep. It is heated by a common brick flue, running along the back, and a moderate sized furnace will heat a frame of this kind, one hundred feet long, thoroughly. If the plants are arranged in rows at right angles with the walk or path, they can be easily watered from the path by a watering-pot with an extra long spout. Over the flue in the rear of the house a shelf can be constructed for wintering plants in a dormant state. A frame or pit of this kind, say one hundred feet long, can be built for less than one dollar per running foot, including excavation, walling, stone, lime, glass, lumber, furnace, and flues, but without painting, a coat of whitewash every season being sufficient. It will also be much more easily heated than one constructed with sashes, as there are but few crevices for the admission of air, and the earth being substituted for a boarded or wooden stage, effects a considerable saving, not only in lumber, but in the volume of air to be heated. A frame of this kind will contain more plants in proportion to its size and the area of glass in its roof than any other, as in most houses the glass over the path is of no use. But in answer to this, it may be urged that a glass roof is as economical as a wooden one. I have often heard this asserted by even practical men. A little arithmetic will enable us to decide this question. First let us compare a wooden with a glazed roof, such as that described in the above plan, which is much cheaper than the ordinary kind with sashes. By actual and careful experience, I find that fifty square feet of the glazed roof of 8x10 glass, at the rate of $3.20 per hundred feet, putty, lumber, carpenters' and glazers, work cost $2.25. And that 50 square feet of inch Carolina flooring, plained, jointed and laid, cost, at 3 cents per foot, and carpenters' work at 12½ cents, $1.62½; showing a difference in favor of a wooden roof of almost one-half. I leave out of the account entirely the breakage of the glass, which makes the difference still greater.

The saving effected by constructing a glazed roof such as that now recommended, over one with sashes, is as follows: Lowest cost of sash (without glass) 8 feet long and 4 feet wide is $1.25, and for each sash a 3x4 rafter with mouldings is required, which costs at least 15 cents more; in all, $1.40. On the other hand, 6 of the sash-bars or rafters like those in the above plan, 8 feet long and 3 inches wide, containing 12 feet, at 2 cents, is 24 cents, and carpenters work, 3 cents each, is 18 cents; in all, 42 cents, or less than one-third the cost of sashes. I shall be pleased to show my frame or pit, which is 130 feet long, to any one who may wish to examine it.

Very truly yours.

Schuylkill.

TRANSPLANTING LARGE TREES IN PARIS.

BY T. W. E., PHILADELPHIA.

Being but an amateur, as you know, in a very small way, I do not pretend to any more horticultural knowledge than the mere fact of "keeping my eyes and ears open" will afford me. Yet I am pleased that the rough notes respecting the Bois de Boulogne should be useful to you.

I write now to make a remark in reference to the large trees alluded to in the extract you gave from a Paris letter. I remember noticing some very large trees that had been removed, were bandaged up with hay ropes all round the trunks, and up the main branches,—even what might be termed comparatively small limbs were so enclosed. In many parts of the tree large vessels or funnels were inserted, into which water was poured regularly every morning.—If I remember rightly, I was informed that the tube or pipe of the funnel was made very small, so that the water should percolate very slowly, and so keep the hay ropes moist all through the day. This did not make much impression on me at the time; but on reading your remarks on evaporation as connected with the failure of tree planting, the circumstance has been recalled to my memory. It serves to corroborate the view you take of it.

[If the French pay so much attention to the checking of evaporation, how much more necessary is it in our arid climate! We are much obliged to T. W. E. for the fact.—Ed.]

TO MAKE MUSHROOM SPAWN, AND HOW TO GROW MUSHROOMS.

BY AN ENGLISH GARDENER.

[A correspondent in England, well versed in this subject, sends us the following valuable communication, which we commend to the careful perusal of the many of our readers who will wish to grow easily this great luxury.—Ed.]

Having had some experience in the manufacture of Mushroom Spawn upon a wholesale scale, I beg to offer the following few remarks. Few establishments are now thought complete without a Mushroom house. So valuable an esculent cannot well be dispensed with from the tables of the luxurious. Though in many places no expense is spared in erecting proper houses for their production, still it has become, of late, a very casual crop, which I attribute to bad spawn,—on considering the matter over, and consulting with old practitioners, who, one and all, say that the produce was attended with much more certainty of success in times past than at present. The time was when gardeners, in general, manufactured their own spawn or had it from their neighbors. Mushrooms were then considered a principal crop, and one in which they greatly prided themselves. Of late years, the manufacture of spawn has been confined to a few dealers in this country, who, in their endeavors to supply a cheap article, in the spirit of competition manufacture an inferior one; or the careless manner in which it is stored with retailers, it becomes spoiled, as the least moisture will cause the spawn to run and exhaust itself; on the contrary, if stored in a dry place, it will keep good for several years.

I consider any remark on Mushroom culture incomplete without first detailing the best method of making spawn. I would urgently advise every gardener to make his own. The labor is little; the expense not half that of buying spawn from the dealers, and the final success doubly satisfactory.

In the month of July, to any quantity of road-scrapings mix double the quantity of fresh horse-droppings, with a little sand loam and finely chopped hay. Make the whole into a soft mortar well incorporated. Spread it upon the floor of an open shed, frequently turning it until of the consistency to shape into flat bricks two inches thick by nine inches square. Insert three or four pieces of good spawn in the flat surface, about the size of nuts. Smooth over the surface, and stand them on edge until half dry.—Spread on the floor about twelve inches of fresh stable-manure, upon which pile the bricks in a square heap, with the spawn side uppermost, leaving interstices between them. Cover the heap with hot stable-manure, and leave it until a gentle warmth has spread through the heap and the spawn spread through the whole, which will be easy perceived on examination. Then place the brick to dry upon a warm flue or in the sun. When perfectly dry, store away for use.

The most essential point in making a Mushroom bed is to have the manure (or horse-droppings) well prepared, by being heaped together and slightly fermented, frequently turning it until the rank steam has escaped.

Make the bed about eighteen inches deep. Let it remain until the temperature has sunk down to 85° Fahrenheit; break the spawn into pieces an inch square, and plunge them an inch below the surface of the bed. After four or five days, cover the surface with fresh yellow loam about an inch thick, and beat it down smooth with the back of a spade. When the soil has become dry and hard, damp some mulchy hay and cover the surface about six inches. If you find wood-lice troublesome, take some finely powdered sugar and mix it with arsenic. Place this in the evening upon plates in their runs. It will soon rid you of this pest; also ants, cockroaches, crickets, &c. By no means apply water from a watering-pot, but renew the damp hay when necessary. Never allow the temperature to rise above 70°. Any dry sheltered corner or shed will produce mushrooms equal to iron shelves on whitewashed walls.

The Gardener's Monthly.

PHILADELPHIA, AUGUST 1, 1859.

☞ All Communications for the Editor should be addressed, Thomas Meehan, Germantown, Philadelphia," and Business Letters directed to "The Publisher of the Gardener's Monthly, Box 406 Philadelphia."

The Publisher particularly requests that Advertisements should be forwarded so as to be received before the 20th of the month, or otherwise they cannot be inserted.

OUR PAPER.

The first half year of our paper has earned a nitch in the temple of time; and while preparing to make a fresh effort, we may be pardoned for dwelling a few moments on the past.

And firstly, we have to say that our existence is now a fixed fact. When calculating the cost of getting out our paper for the first year in the manner we projected and have since carried out, our conclusion was, that with a liberal advertising list and ten thousand subscribers, we could make the income and expenditures balance accounts. The only doubt we had of succeeding was, whether ten thousand persons could be obtained to feel an interest in a paper exclusively horticultural. It was scarcely to be expected that in an issue so doubtful, many persons would send in their subscriptions until the year had nearly expired, and time had tested the permanency of the undertaking; but notwithstanding this naturally-to-be-expected tardiness, seven thousand subscriptions have already been received, and instead of having to wait for ten thousand to start the new year with, present signs indicate that we shall reach that number before the year ends. We were determined, from the start, to have, at least, a *circulation of ten thousand*, in justice to the advertisers who so liberally supported us. That edition has been struck off every month, and the greater part not sent to subscribers have been distributed gratuitously through the world, for the double purpose of making our paper known, and extending the advertisements of our friends. We return our warmest thanks to those who have labored to distribute the free copies for us. For a few months longer, until our ten thousand list is filled, we shall still have a few more, which we hope they will still continue to use to the best advantage.

Some of our agricultural papers have a circulation, it is said, of over fifty thousand copies. Now, the number of horticulturists far exceeds the number of agriculturists; for every farmer, to a certain extent, is, or ought to be, a gardener also, and would be benefitted by taking a periodical devoted to horticulture.

We have also to thank many of our correspondents for their flattering approval of our paper. Often we have been tempted to extract from their valued favors, but have been restrained through sheer inability to select the best from so large and goodly a list.—With strong encouragement from many such well-known names as Downing, Barry, Sargent, Buist, Leuchars, Elliott, Reid, Brackenridge, Longworth, Wilder, Walker, Parsons, Darlington, Dunlap, White, Ellsworth, &c., many of them, too, from whom we have, on some occasion or other, been publicly compelled to differ, but whom we no less esteem and respect, we cannot do less than feel cheered on in our labors.

To the agricultural and horticultural press of our country are we also much indebted. Without a single exception, the whole of them have given us the warmest encouragement. The brief, but substantial, notice of the *Ohio Cultivator*, that "*The Gardener's Monthly* is the best horticultural paper in the world," has been stated in other words by most of them. Without pretending that we do not think these notices too flattering, we may say that our efforts shall be to make them as near the fact as possible.

We have yet a word more to say to our contributors. To them, more than to our own efforts, do we attribute the encouraging success we have met with, and to a continuation of their favors do we look for the increased popularity of the *Monthly*, and the rapid extension of the horticultural taste that has marked its progress. We have hitherto felt a delicacy in asking our friends to contribute to a paper the manner of conducting which, they have had no experience. With one or two exceptions, the whole of the valuable matter that has appeared in our columns has been the free and unsolicited offerings of the writers. We have less hesitation now in asking the aid of their pens. There are few who do not occasionally meet with some fact that would be highly interesting if noted. Not merely is he who sends a fact for publication benefitting others,—he is aiding himself in the acquisition of knowledge. The habit of noting things impresses them on the memory, and affords moments for reflection, when many new applications of the idea will occur that would never have been dreamed of. Few men ever achieve eminence for their practical knowledge, who are unaccustomed to noting down what they see or think. For their own sake, then, no less than for the benefit of our community, do we hope to see our contributors increase in numbers.

As to having nothing new to write about, there is nothing of the kind to be expected. There are but seven notes in music, or twenty-four letters in the alphabet; but the tones and transpositions are so capable of variation, that every day brings with it something new; and it ought to be so with our profession. If one hundred men were to relate their experience with any one particular plant or crop, something could be learned from each, and the one hundred and first would, perhaps, be the most entertaining of all.

We need not, we are assured, apologize for the space our remarks have occupied. We are opposed to that species of vanity which is continually pa rading the good things others may say of us; but, on the other hand, we cannot allow our friends to feel that we are indifferent to their good opinion; for, next to maintaining the honor and credit of our journal as an intelligent and impartial director of horticultural taste, there is nothing, we may say, we value more.

HOW HOT AIR OR WATER CIRCULATES.

All of us have been taught that *heated air ascends*, and all of our modes of heating and systems of ventilation are founded on this principle; but it is only partially true, and the error consists in considering the heat itself to be the active power which causes the ascension.

Heated air ascends only in a *passive* sense. It is an active power merely by its capacity to expand. In the act of expansion, it becomes a force, and as such is classed with the motive powers. But the *ascension of heated air* is due to no inherent powers, but entirely to the principle of gravitation.

If we put an egg into a vessel of water, it sinks to the bottom; but if we try it in one filled with strong brine, it remains at the surface. The reason is, that the principle of gravity attracts most forcibly towards the earth's centre that which is the heaviest, and in any yielding medium, as in air or water, that which is the heaviest will seize on the lowest position. In the case of the brine, it being, space for space, heavier than the egg, it is drawn towards the centre of the earth, and the egg is forced to the surface of the liquid.

The principles which govern hot air and hot water are alike, and the circulation of both are dependent, not on *expansion*, but on *gravitation*. We wish to teach that hot air or hot water does not "ascend" or "circulate" in any *active* sense; but is rather *made* to ascend, and *forced* to circulate, by the superior gravitating power of denser fluids surrounding them, which, as in the case of the egg in the brine, forces the lighter materials uppermost.

We have never met with any data as to the comparative weights of cold and heated air; but Dr. Young, in his calculations of the specific gravity of water at different temperatures, gives the weight of a cubic inch of 34° Fahrenheit at 252 7-10 grains; and of 212°, or the boiling point, at 242 3-10 grains; so that when hot water circulates through pipes, or hot air through flues, it is not because, by the expansion, the heated material forces the cold ahead of it, but it is because the colder and heavier material, by its greater specific gravity, is attracted or drawn below and beneath it, forcing it upwards or forwards till the proper balance is obtained.

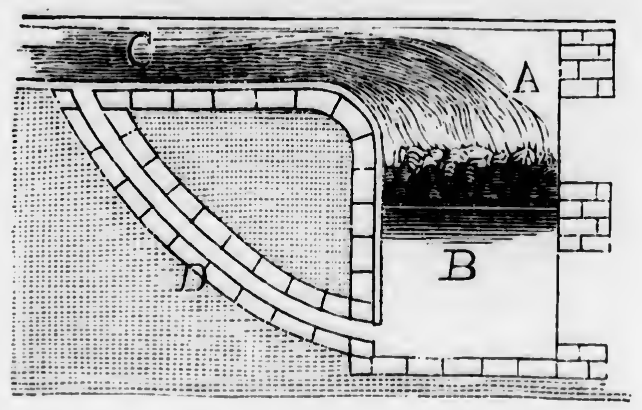
The non-recognition of this principle leads to sad blundering in furnace building and in erecting hot water apparatus. We see continually men who are undoubtedly to be considered masters of their business, beaten worse than the French at Moscow, by a trumpery little flue. Every thing is calculated to a nicety, and after a great outlay, and the check for payment is all but signed, John runs in with the fatal announcement, that "the flue won't draw."—The writer knows by his own course, that the less experience he might have had, the more he thought he knew about the matter; and he is now ashamed to confess that it was only after scores of flues and furnaces had been torn down and rebuilt, that he felt he could have a flue built with the certainty of its drawing well.

"Heated air ascends; therefore the flue must have a gradual rise from the furnace." This is the commonest of the maxims; but who has not seen scores of flues on the ascending principle, and yet total failures? The writer has. So, also, of the furnace it is said "it should admit of a rise of at least 18 inches at its connection with the flue." A. B. has his flue to rise so, but a failure, nevertheless. Then we have various other theories. A. "goes in" for wide mouth chimnies; B. for narrow ones; C. for tall ones; D. finds short ones draw well; E. must have flues round at the corners; and F. is satisfied with his square ones. Each is sure he is right, chiefly because the flues *happen* to do well.

But it matters little how flues are built, or how furnaces are constructed. If a body of cold air can be had to follow immediately after a column of warm air, the latter will be *driven ahead*, in spite of the formation of the flue.

To illustrate this principle, we divided off 35 feet of a lean-to house 16 feet wide, and constructed a flue along the front and above the walk, starting without any rise of much account from the furnace, and proceeding on a gradual *descent* for thirty feet; then we gave it an abrupt descent of *three feet*, in order to take it *under the walk* along the front of the house; then brought it up on the other side of the walk, and led it into the chimney built in the back wall of the house. On testing this on several occasions, it was found that after six hours' fire, heat was barely perceptible to the hand at the junction of the flue with the chimney.

Now, to apply the cold-air principle, we constructed a drain to communicate with the external air and the flue. This we connected with the lower part of the ash-pit, as shown at *D*.



A the furnace; *B*, ash-pit; *C*, flue; *D*, cold air drain.

With this arrangement, a small fire heated the flue to such a degree, that in *ten minutes* after it is lighted, one cannot retain the hand a minute at the junction of the flue and chimney, although near forty feet from the furnace, and where before the heat could be barely felt. Had the cold-air drain been laid so as to connect with the air outside the house, instead of with the ash-pit, the result would probably have been still more marked; but it was so satisfactory as it was, that it has never been disturbed, and we still keep it in that condition to show to our friends,—especially to those who suppose the "ascending principle" to be so all-important.

We must not be understood to assert that hot air cannot more easily be made to ascend, than to be driven into a horizontal or descending direction, as that would be contrary to every-day experience, as well as to that gravitating principle which we are endeavoring to explain; we give the example to show what can be done when the principle is well understood.

Heating by hot water, we have already said, is governed by the same law. It is not that the cold water is forced through the pipe by the expansion of the warmed portion; it is, in reality, the cold water driving the warm particles before it. Hence a fire might be built under a boiler set in the third story of a building, and hot water led from thence to the cellar and back to the boiler again as successfully as has ever been done on a level grade. The only care necessary is that the pipe leading from below up into the boiler should always be kept colder than the one bringing the water down. The writer experimented very fully on this point some years ago, while raising the Victoria regia. Water, it was found, could be made to flow quite as well downwards as upwards, by *starting in that way*. By first heating the return-pipe, so as to make it much warmer than the upper one, the water flowed through it, and continued for a week, till the flow-pipe was served in the same way, when the water took its usual course.

Early in the spring a Rochester friend addressed us on this subject. He had one house below another, which he wished heated from the uppermost one; but, said he, "after studying every work on the subject, I concluded that hot water cannot be made to run down hill from a boiler" We gave him the result of our own experience, and he had sufficient confidence to try it on a small scale, and wrote us that it was a decided failure. From his account, we suspected that he had allowed the return-pipe at its connection with the boiler to become as warm as the flow. He altered it, and his success was so complete, that he wrote us in the most enthusiastic terms in relation to "the new principle;" and it is, indeed, at his request that we have penned this article.

We do not take credit for laying before our readers any new principle, however; but we do think it is one too frequently forgotten. At first sight, there seems but a slight difference whether heat ascends because it is the lightest, or because cold air is the heaviest and floats the warm air up; but there is, in reality, as much difference between the ideas as in a man leaving you with a pleasant "good morning," and in another one being kicked out of your house; and one quite as likely, as we have seen, to lead to as different results.

THINGS AROUND PHILADELPHIA.
No. II.

Near Mr. Fergusson's, on the Reading Railroad, is what was formerly the residence of

John Tucker, Esq., but now in the market for sale. Some idea of the beauty and magnificence of this splendid place may be inferred from the fact that it is offered *only* for $150,000, as an *inducement* to some purchaser, for which they are anxiously looking.

As the house was unoccupied, we were allowed the privilege of looking through it; and few, even of the old baronial mansions of Europe, could boast of more solid and beautiful workmanship, or more studied comfort and elegance, than were everywhere exhibited. The grounds are very extensive and wel laid out, and the scenery from every point is magnificent. Unlike many places under similar circumstances, it is still kept up in good order and neatness,—Mr. Grassie, who has for so long commanded there, being still general-in-chief. The pretty conservatory, which was always one of our models for neatness and the beautiful simplicity of its arrangement, was now empty; but the numerous varieties of Passion-flowers, which were hanging from the rafters in variously-shaped wreaths and festoons of flowers, formed in themselves a charming sight to see. The curvilinear vinery, too, which has become famous for the superior manner in which the vines have ever borne under Mr. Grassie's care, were still as glorious as ever. The canes, though the vines have only been planted six years, measured, at four feet from the ground, in several instances, six inches in circumference. From one-half the house, 25 feet long, we believe, (the house is divided into two parts,)—Mr. G. informed us, as many as 600 pounds had been heretofore taken. One division is occupied entirely by the West St. Peters. Like Mr. Divine, Mr. Grassie believes a moist atmosphere essential to set the Cannon Hall well. The forcing pits are quite a peculiar feature here. They were originally intended for almost every thing in the way of fruits and vegetables. Under present circumstances, attention is chiefly bestowed on Grapes in pots and Cucumbers. The latter are grown in a division of one of the pits, embracing only three sashes. Yet from this little spot, Mr. G. informs us the receipts through the winter averaged $3 per week. They sold readily at an average of 50 cents each.

The cultivation of the Pine-apple was at one time carried on very extensively and very successfully; but since the difficulties have beset the place, they are found not to pay expenses, and are now abandoned. It would pay in time, as when the value of a well-ripened fruit should be popularly known, five dollars would be much more readily paid for one, than fifty cents for the unripe, cholera-breeding abortions that abound in our markets. Mr. Grassie thinks that, at $5 each, they would pay very well. The most he could obtain for them was $3, and the average was but $1.50 each. Like the others we have noted, the pot vines were also here abundantly loaded with grapes. In one of our back numbers our correspondent, Mr. R. Buist, noted the fact, that severe injury to the foliage produced shanking and discoloration of the fruit of the vine. Here we saw the same thing illustrated. During Mr. Grassie's absence, some of the pots got too dry, and under a sudden burst of hot sun got their leaves scorched about the time the fruit was stoning. None of these grapes colored well; while those retaining their leaves healthily ripened as usual.

Mr. Grassie keeps the extensive drives clear of weeds by the application of dry salt, costing 25 cents per bushel.

Our next trip found us at the residence of

C. F. Abbot, Esq., and again the first thing that struck us in a very prettily got up greenhouse, was a fine lot of well-fruited vines in pots, and the gardener, Mr. Brooks, enthusiastic in his ideas of the value of the system, which certainly, when grown as they were, deserves all the admiration he expressed for them. In the open air, also, the hardy Grapes looked admirable. We certainly never saw any hardy vines promise so well. From what we could gather, Mr. Brooks had them under some experiment, which, if they turn out as successfully as they seem to promise, he will at some future time give us for our readers. The fruit-garden was overflowing with abundance; especially the Strawberries, which were now in their prime. Mr. Brooks pointed out a bed as the Albany, and another as the Felten's Improved; and after a very careful examination of form, flavor, and habit of growth, none of our party could detect any difference between them. The finest berry and the one possessing the best color and flavor grown here was marked "Prince's Seedling;" but it had the objection of being very soft—so much so as scarcely to be fingered. We saw, also, a seedling raised on the place, of a light pink color, of enormous size and remarkably firm texture, but rather deficient in flavor. It had the merit of being very distinct in appearance from any other kind we know of. Ingram's Prince of Wales, a foreign kind, succeeds well here, and had an excellent flavor.

On the south of Philadelphia, and four miles from Market Street Bridge, is the nursery of

Mr. R. Buist. It will be no injustice to any other nurseryman, to say that probably few other persons have done as much for the introduction of new and rare plants as this gentleman, and that his name will be inseparably connected with the history of horticulture in the States, as one of its chief founders.—The ancient spirit still exists, and new and costly plants are annually imported, although in the face of the fact that such speculations, on the whole, as we believe, do not *pay* as well as the other branches of the business. We were very much gratified, however, to hear Mr. Buist remark, that in the whole of his thirty year's experience, he had not known of the existence of so great a taste for horticultural affairs as the past few months have exhibited,—a fact which he flatteringly complimented the *Monthly* with having had a little hand in inducing. We estimated about thirty acres under cultivation for trees alone, and this not the cultivation which we often see employed, and which would require several hundred to grow the same amount of stock. Mr. Buist advocates subsoiling and draining, and the results are such as we have remarked.

We were particularly interested in a long row of dwarf Pear trees on either side of the main drive, which we saw planted ten years ago, then in the expectancy of seeing them still growing when our head should have turned grey; but here we are still with our "raven locks" unsullied with silver, and nearly a fourth of the trees gone to that bourne from whence no dwarf Pear returns. Mr. Buist's soil is unquestionably one of the very best for the purpose. The subsoil is just of that nature which would afford the best particular and most lasting supply of moisture and matter the dwarf stock is supposed to require; but it is pretty evident that the whole secret is, that some kinds are not long livers on the quince stock. Mr. Buist has noticed that when one kind gives out, the whole number of that particular kind of the same age gives out also. He concludes that some kinds will only live a few years, others more, and some few will live to a great age. He named some kinds that his observations led him to believe would live to a great age on the quince, and by the judicious selection of which, dwarf Pear culture would yet maintain its valuable reputation. He kindly promised to give us his views of these kinds when his observations should be more accurately matured.

At the time of our visit, the Roses, which are here grown largely, were in full bloom, and we noted the following amongst the newer or scarce kinds that were particularly fine: Moss Perpetual, Abel Carriere, Mad. Knorr, General Simpson, General Jacqueminot, Blanche Lafitte, Arthur de Sansal, Bacchus, Louis Peronnier, Triomphe de l'Exposition, Souvenir de Henry Clay, Moss Comptesse Marianne, Moss W. Lobb, and of course Lord Raglan, though so popular as to scarcely come under the head of either new or scarce. In one of the houses the Pelargoniums were in full bloom, and particularly fine. Among them we noted Mrs. Beck, Majestic, Miss Foster, Wonderful, Snowflake, Duchess, Spotted Gem, Turner's Symmetry, and Virginatum. Amongst the curiously marked French kinds, Albine and Adelt were very pretty, as were two bedding or perpetual bloomers named Etna and Carminata. The Verbena has always found a protector here, and amongst the newest additions, Lady Fitzroy Harris pleased us very much. Out of the many beautiful kinds of Fuchsias in bloom, Princess Royal and Rose of Castile struck us as most distinct. A very dwarf Heliotrope, with dark purple flowers, called Petite Negresse, will, we think, become popular.

In walking through the houses, a very handsome variegated Fuchsia was a striking object. It is pleasing to notice here, as elsewhere, increasing signs

of progress and prosperity. Since our last year's visit, an orchard-house, one hundred and forty feet long, and on the fixed-roof principle also, has been added to the many thousand running feet of glass work already existing here. The principle of annexation has also had free development, and many of the neighboring properties have been absorbed for seed and nursery purposes.

But our limit is exhausted, and we will close our notes by remarking that here is probably one of the prettiest Pinus pyrenadica one could see anywhere,—a Pinus excelsa about 12 feet high, is also very handsome, and one of P. mughus, or P. montana, about 8 feet high, one of the handsomest we have ever seen.

Two miles below this, towards the city, is the nursery of

Mr. JOHN DICK, and like all the rest, showing improvement. Mr. Dick has in this tract about 25 acres, and we learned that he had recently purchased about 70 more in the immediate vicinity. Here, also, was in course of erection a new greenhouse 120 feet long, also on the fixed-roof principle, and promised to be the handsomest one of the many already existing on his place. Mr. Dick does a good business in the wholesale way,—and it would puzzle an outsider to guess where the millions of Camellias and Roses in process of bringing up, would ultimately find themselves. Mr. Dick does not seem to do much in mere novelties. but propagates largely of standard plants which find a large and ready market with retailers. Thousands of Honeysuckles, for instance, Deutzias, Spiræas, Wiegelias, &c., meet the eye at every turn; but the scarcer things are not by any means neglected, as the many hundreds of that handsome little evergreen Retinospora ericoides fully testified.

Right in the heart of the city, near Broad and Walnut Streets, is the residence and garden of

JAMES DUNDAS, Esq. We often read of the wonderful Mammoth Cave in Kentucky. Those who have never seen it, may get some idea by visiting these grounds. But there is this difference, that while the cave has its windings, labyrinths and mazes under the surface,—this has all these wonders above. Greenhouse here is built on greenhouse, and the main idea seems to be with them, when they get cramped for room, instead of *spreading*, to go *higher up*. You may find every thing here, from a Club Moss to the Victoria; and speaking of the Victoria, here she was smiling as sweetly in her beautiful blossom, as we had been accustomed to see her heretofore among the famed beauties of Springbrook. It has been here now some years, and Mr. Pollock, the gardener, informed us that they have never been without flowers, winter or summer. The flowers and leaves were as fine as we ever saw them. Mr. Pollock stated that the largest leaves he had ever grown were 6½ feet in diameter. But this is not all. The immense collection of Orchidæ and Ferns is probably the finest in the United States, and have nearly always some one of the former in bloom, with their sweet, showy and remarkably curious flowers. At the present time, Acantho phippium bicolor, amongst many others, was in full bloom, the flowers resembling in shape the Skunk Cabbage,—but with what different feelings should we regard that loathsome weed, if it had but the fragrance and coloring of this!

Amongst the plants in bloom that were particularly handsome, we noted the following: Euromœa anœa, a small-growing stove plant, with small, bright ever-blooming pink flowers; Chirita sinensis, an old small-growing stove plant, but in the orchidæ house was prettier than we ever saw it; Tapina splendens, a stove plant of small growth, but with flowers of a deeper scarlet than even the old Achimenes coccinea. There was also Lobelia Addisonii, with large, blue flowers; Begonia Griffithii; B. Verschafelti; Nidularia splendens, with a flower which you might fancy was a nest of young king birds. In the water of the Victoria tank, also, was a species of Nymphacea, supposed to come from Japan, with bright yellow flowers, but unnamed. Mr. Pollock has his Victoria tank filled with fish, and believes in the principles recognized as sound in the management of aquariums that the Victoria is much aided thereby.

We have still a wee drop of ink left in our stand, and must try to make it hold out to make a note of some figs we saw at the beautiful residence of

H. P. MCKEAN, Esq., near Philadelphia. This is probably one of the finest country-seats about the city,—laid out, as so many of our finest places have been, from designs furnished by Mr. J. C. Sidney,—and looking down on the distant city and evirons, as on a magnificent panorama. Lining the walk leading from the mansion to the greenhouses, are two rows of Fig trees in tubs, laden with fruit, and in the best possible conditions of health and beauty. It was a novel sight to us, accustomed as we have been to rows of Oranges, Pomegranates, Oleanders, &c., and was quite a treat to see. The gravel walks connecting the various greenhouses had a line of smooth flags laid down their centre, which was in keeping with the artificial character expected in a walk, and besides makes a most comfortable passage-way in winter time. The lawn here is mowed, in main, by a Swift's Lawn Mower, which we have also noted in other of our large establishments.

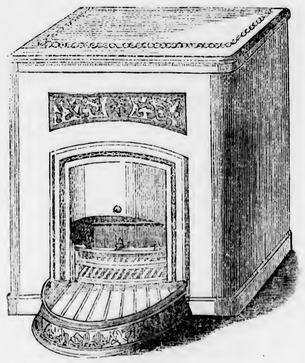
MANUFACTURE OF SLATE.

IN our July number there appeared an article from a correspondent in Bethlehem, Pa., recommending slate for many horticultural purposes, and expressing surprise that it is not more used on account of its beauty and durability. In reply to this communication, we have received the Illustrated Catalogue of the Penrhyn Mantel and Slate Company of Middle Granville, Washington County, N. Y. We are surprised at the beauty and variety of the designs, which embrace mantels, bath-tubs, cisterns, wash-stands, architectural ornaments, stoves, vases, and an endless variety of other articles. We have had copied from

Fig. 1.

it, by our engraver, a specimen of Garden Vase. (See fig. 1.) And of a Cabinet Stove. (See fig. 2.)

Fig. 2.



We are pleased to find that this branch of manufactures has arrived at such perfection in this country.

CLIMATOLOGY OF THE UNITED STATES.

AT page 41 we alluded to the valuable labors of Professor Hough, of Albany, on the Climatology of the State of New York, and the pleasure it gave us to learn of his connection with Professor Henry, of the Smithsonian Institution, in arranging and classifying tables that cannot fail to possess great interest to us all. We are pleased to learn from Dr. Hough, that the good work is progressing. In a letter now before us he says:

"I have 880 tables, including the flowering of the principal plants, ripening, &c., done so far as relate to Pennsylvania and all the States north-east of that.

"The returns are quite imperfect, but still valuable for comparison. They are reported from about 300 stations, mostly in the Northern and Western States."

Questions and Answers.

TO DRY FIGS.—A correspondent in Texas inquires how this is done. We translate from a French work the method practiced in France:—The fruit is placed on a hurdle made of reeds, placed in a dry spot, and as fully exposed to the sun as possible. In the evening they are removed to an airy, well ventilated shed, free from any unpleasant odors. Those who dry large numbers do not take this trouble, but pile them, and cover with water-proof cloth. They should be turned over every morning. In flattening the figs they should be kept separate for a time, or they will adhere together. They soon become flabby, then shrivel, and afterwards become harder. In some localities they do not gather them till they are somewhat overripe, and, after exposing them for a few days, they throw them into large panniers to sweat for seven or eight days, and then dry them in the sun. Every morning they take out the figs that are fully dry, placing them on a cloth in a dry and airy room, separating any which show signs of decaying. When they are all dried, they are flattened and separated into three lots, according to size and quality, for market. In wet autumns they use a kiln for drying, but they are never so good as those dried in the sun.

OUR LIST OF NURSERYMEN.—We are obliged to several friends for some additions to our list. We supposed, from the impossibility of recollecting at the moment of compilation, some even well-known names, and a want of precise knowledge in others, that our list would be very incomplete; and we are astonished that so few additions have been offered. We shall often insert this list, in fact, whenever our advertising space is not crowded; and, as it is got up entirely that nurserymen and amateurs may know what is in their own locality, it will be entirely their own fault if any one's name is omitted that ought to appear.

AURACARIA AT CLIFTON PARK.—A correspondent writes to us that the Auracaria which we noted at Mr. Hopkins as *A. imbricata*, and which we described as being so very luxuriant as to appear like *A. Cunninghamii*, is in reality the latter species.

GREEN COS LETTUCE.—One of our friends has sent us a brace of what appears to be the Common Green Cos Lettuce, and which, as we have just partaken of them, we desire, while the inspiration is fresh within us, to express our favorable opinion. Each weighed about 1½ pounds, and had headed without any tying. There was not the least trace of bitterness about them, which, June 30th, is remarkable. The Drumhead and the Indian are so generally recommended for summer salad, that it seems strange this kind should not be more employed. But the former mature quicker, and look prettier, and so are better for "market purposes," where the public generally buy up what is cheap and poor, in preference to more substantial things at paying prices. For the amateur, who grows his own, the Green Cos is well worthy of attention.

PRIVATE LETTERS.—During the past few months we have received innumerable letters from friends desiring us to attend to personal matters for them. It has been impossible to find time to reply to many of them; but wherever we have been able to do our friends the required service, we have been happy, and take this opportunity to say to those who may not have heard from us in any way, that it has arisen from our failure to accomplish their wishes.

RHUBARB CHAMPAGNE.—A correspondent at Phillipsburg, N. J., inquires how this is made. We give below, from the *North-west Prairie Farmer*, how the *Wine* is made. Champagne is made by arresting the fermentation before it is completed. Great skill is required to know exactly *when* to do this, or the bottles burst.

"*Rhubarb Wine.*—B. P. Cahoon of Kenosha, Wis., originated the rhubarb wine manufacture. Mix equal quantities of water with the juice of the stalks, and to each gallon add 3 lbs. fair quality of New Orleans sugar, put in barrels, filled full, and refined with isinglass, and allowed to remain in the barrels till spring, and then bottled. By adding or diminishing the quantity of sugar it will vary the strength of the wine in the same proportion. The pure juice without water makes a very strong wine, by using 4 lbs. of sugar to each gallon. It appears that the process is exactly that with the currant-juice, blackberry-juice, elderberry-juice, gooseberry-juice or any other juice, such as has long been used in families all over the country, for the manufacture of beverages called wine. The advantage of the rhubarb is, that it affords a greater quantity of juice than any other plant; and it is a better quality than any but grape juice for the manufacture of domestic wine. It will afford an abundance of cheap vinegar. The acid of the plant, as all pie-makers are aware, is decidedly sharp. Mr. G. Lewis, last season, made from one-eighth of an acre, 400 gallons. It is a fair estimate that 2500 gallons can be made from an acre of well cultivated roots. The wine costs about 40 cents per gallon to the manufacturer."

FUNGUS IN CUTTING-POTS—*A. B. S., Cumminsville, O.*—The thread-like, filmy fungus about your cuttings in your propagating house, is very different from the frothy matter we supposed H. B. (see our June number,) to refer to in his tan. The kind you allude to is a great pest with propagators, and we know of no way to get rid of it, but the one usually followed, namely, to take out the cuttings, and re-set them immediately in clean fresh sand.

GERMANTOWN SEEDLING STRAWBERRY—*S. Moore, Kensington, O.*—At the last meeting of the Pennsylvania Horticultural Society, the Fruit Committee awarded a premium to "the Germantown Seedling," by which we judge that, in their opinion, it is a distinct variety. We believe Dr. Brincklé, Mr. Buist, and other well known pomologists, acted on that committee, and we have great faith in their decision of such a question. The prevailing impression here has been that it it is the same as Hovey's Seedling. Mr. Young's address is Germantown, Pa.

PLATTSBURGH, N. Y., July 7th, 1859.

THOMAS MEEHAN, ESQ.: Sir,—Looking over your *Monthly* I find to be a source of most extensive knowledge. I take the liberty of asking you a question, which, I hope, you will be kind enough to answer me, that is, whether there is any difference between the Red and Black Spruce? or are they both one? I have been taught in Canada that there is a Red, Black and White Spruce. I brought three spruces from the woods this spring, about five feet high; they all grew on the same soil. I planted them out, and they are in a fine growing state now. I call them the red, white and black, but practical men argue that there is no distinction, that the red and the black are the same, *i. e.*, Black Spruce; though there is a difference in color and growth(2). Also, if you would be kind enough to let me know, whether it is best in heading maiden shoots to rub all the buds off except those wanted to form the head of the tree; or, to leave more than are wanted, and cut them off the spring following? I rub off all the buds except five or six, which are enough to form the head; but that method was ridiculed by a practical nurseryman this spring(1). I would like to know the best method, as I am depending on the blue apron for a living, and am your obedient servant, JOHN ARCHBOLD,

Gardener to John W. Bailey, Esq.

P. S.—I also brought from the woods some plants of Cypripedium spectabile, which adds to the flower border very much(3). J. A.

[1. It is best to leave them on, unless they are likely to be more vigorous than shoots intended to form the head, when they should be cut away. The more foliage you can get on the stem, provided the growth is not too strong, the faster will the stem swell, and the stronger will the roots be, so that when the winter pruning is effected, the shoots that are left will have the benefit of this increased power.

2. There is not, we think, sufficient distinction between the red and black spruces to consider them as different. Lambert, who first named *Abies rubra* or Red Spruce, said at the time, that he did so doubting its distinctiveness. Dr. Gray has since stated, that "probably red, white and black spruces are forms of one species;" so little specific differences do they afford. In our own efforts to recognize any difference between the seeds and cones of the red and black spruces, we have entirely failed. Many kinds of trees afford variations amongst themselves more or less constant, and it is probably the case here.

3. It is very difficult to get this beautiful plant to do well more than one year after transplanting. If you succeed well, shall be glad to have your way of managing it.]

CHEAP GLASS HOUSES—*G. Fryer, Wilmington, Del.*—The frequent inquiries about Schuylkill's article on glass houses, has induced us to reprint it again, which you will find in another column.

HORTICULTURAL ADVERTISMENTS—*X., Albany, N. Y.*—We agree with you that the increasing tendency of horticulturists to take the advertisements of quack doctors, and fashionable clothing establishments, as models worthy of imitation, is deplorable. It is not an Editor's province to "pitch into" all these persons individually. As a rule, don't buy an extravagantly puffed up article. A new plant or fruit always calls for confidence on the part of the purchaser. You should know who you are buying of, what his knowledge is, so as to enable him to judge of the value and novelty of the article he offers, and then what his character and standing in the trade for honesty and fair dealing. If an advertiser's manner is bad, his goods are likely to be. You have the remedy, don't buy.

MOYER'S HONEY HEART CHERRY.—We have received from Mr. J. G. Youngken, of Richlandtown, Bucks Co., Pa., a box of branches of this fruit. The fruit are below medium sized, of "good" quality, and apparently the most abundant bearer we ever saw. From a space of two inches along the stem we counted, in several instances, twenty-four cherries.

From the same gentleman we received a collection of Currants and Raspberries; amongst the latter, two new seedlings of merit, which, with good cultivation and care, might prove sufficiently distinct from others to be worth naming.

DISEASE IN TOMATOES.—An inquirer describes his Tomato vines as being nearly denuded of their foliage by a large green caterpillar, and asks a remedy. The caterpillar is is doubtless the production of a species of sphinx moth, which is usually found very destructive, and we think the only way to get rid of them is perseverance in employing boys to collect and destroy them.

CHEAP BOUQUET PLANTS FOR WINTER.—Could you give a list of plants of easy culture in a small greenhouse, suitable for Winter Bouquets, such as could be sold at rather low price, suitable for a small country village?

Respectfully yours, JOHN C. HELM.

[Mignionette, Heliotrope, Habrothamnus elegans, Cuphea platycentra, Scarlet geraniums, Stevia serrata, Bouvardia leiantha; Roses—Mad. Bosanquet, White Daily, Agripine, Louis Phillippe; Salvia splendens, S. leucantha, S. liliana, Syringas, Abutilon striatum, Acacias, Coronilla glauca, Fabiana imbricata, Chinese Primrose, Tropœolum Lobbianum, Azaleas, Hibiscus mollis, Calceolaria rugosa, Cytissus ramosus, Chorozema varium, Pentas carnea, and we think the double white Camellia ought not to be omitted, though not exactly cheap or common. The other matters, we presume, are attended to.]

Books, Catalogues, &c.

Manual of Scientific and Practical Agriculture for the School and Farm; by J. L. Campbell, A.M. Lindsay & Blakiston, Philadelphia.

This work will not have the objection usually made to others of similar character,—that it is so excessively "learned" and filled with technical terms to such an unnecessary degree, as to be of very little service to those for whom it is professedly designed. The agricultural community, as a rule, have not had the advantage of an education sufficient to understand even the language of those who seem rather to condescend to write for them, than to come down willingly to their level and teach. The present work is a great step in the right direction. The "commonest" reader may take it in hand, and not lay it down without profit.

The arrangement of the work is excellent,—affording, in short, well written chapters, a complete idea of the subjects taught as the student progresses. At the end of each chapter a set of questions is arranged, referring to the subjects taught, and by which the work can be made to serve either the purposes of a class-book, or as a refresher of the memory of the self-instructing student at home.

The division treating of the application of the principles taught in the preceding part, is much more interesting than we expected, as it is quite unusual for a professedly scientific man to be at the same time well posted up in the innumerable small details of practice. That

"The well laid schemes of mice and men
Gang aft agley,"

is particularly true of scientific schemes laid to entrap practical errors. We have scarcely ever seen a work in which such failure could not be pointed out. Even in the present work our author says:

"The flower-buds of the potato should be plucked off as soon as they make their appearance. The nutrition, expended in the production of seeds, is almost identical in kind with that which promotes the growth of tubers. Hence, if seeds are produced, it must be at the expense of food which would otherwise nourish the tubers. The plucking of the flower-buds prevents this abstracting of starch, gluten, &c., from the crop. Topping the vines, when they are too rank, has sometimes a like effect."

Now, this seems so reasonable, that one might firmly believe in its accuracy, without ever seeing a potato. "The nutrition, &c., is almost identical with that which promotes the growth of the tuber." But the most careful experiments have been tried, alternate rows, alternate hills, and other careful guards employed, and the produce, after being carefully weighed, has very nearly balanced in both both cases, showing no advantage in the deflowered over those allowed to follow the natural bent of nature. In the *Gardener's Chronicle* for 1856 or '57 (for we have not the volume just at hand to refer to) will be found some very carefully conducted experiments, with the results we state, and these have been repeated over

and over again by others. These errors may seem trifles; but it is from them that the practical men derive their chief prejudices against "book farming," and it is well worth while carefully to guard against them. It is a merit of this work, that such errors usually thought unavoidable, are in it remarkably few. On the other hand, it makes many suggestions which we would like to see more generally understood and acted upon. In the use of liquid manure, for instance, one of the chief stars which shed such a lustre on the much-talked-of field of English agriculture, and which, to our great loss, we totally neglect.

We hope the book will meet with the sale it deserves, as being one of the best calculated works to popularize the science of agriculture that we have seen.

The Homestead, Hartford, Conn., has, we see, changed publishers. Mr. Mason C. Weld continues the Editor. Mr. Weld has already carried the *Homestead* to the top of the ladder, and it will be hard for him, by any subdivision of labor, to give it a higher standing than it now enjoys.

Bissel & Salter, Rochester, N. Y. Illustrated and Descriptive Catalogue of Native Grapes, &c. Beautifully got up and profusely illustrated; not the least of its merits being that the latter are not by any means exaggerated.

D. M. Dewey, Rochester, N. Y. List of Colored Plates of Fruits and Flowers. We have before commended this enterprise to the favorable consideration of our readers, and would again press it on them.—The present list is much lengthened since our last notice.

H. E. Hooker & Co., Rochester, N. Y. Descriptive Catalogue 1859—'60. A handsome issue of 64 pages, and not either carrying suspicion with it of having been filled up for the occasion, but evidently a faithful description of kinds grown.

The American Farmer, Baltimore, Md., commences a new volume. We believe this is the oldest agricultural monthly in the country. But they do say it shows yet no sign of the sere and yellow leaf; but continues to increase annually in productiveness and beauty.

College Journal, Cincinnati, Vol. IV. No. 7. It is a very trite saying that "Doctors differ." Those who are interested in knowing what they differ about, should not be without this monthly. Botany and medicine are closely allied, and a due mixture of the knowledge of both in the same individual need not be taken in homœopathic doses.

A. Mattison, Paducah, Ky. Sheet Catalogue of Fruit Trees.

The History of the Cincinnati Horticultural Society contains a brief history of the Society from the commencement in 1843, and the transactions for the past year. Few societies have employed the means at their command to greater benefit to horticulture than this one has.

C. J. Ryan & Co., Rochester, N. Y. Descriptive Catalogue of Fruits. A very excellent catalogue, with hints for transplanting by the late A. J. Downing. "Many persons plant a tree as they would a post," and others besides these may read the hints with much profit.

New and Rare Fruits.

Nantahalee Apple.—There is in this county, (Macon, Ala.) about four miles from Tuskegee, a tree bearing very fine Yellow June Apples. Said tree was found growing in an Indian's yard when this country was first settled by the whites; and from it I distributed cuttings somewhat extensively, a few years since. Dr. W. O. Baldwin, wrote to Mr. Van Buren, requesting him to name the Apple, and the latter gentleman called it "Nantahalee," an Indian word which, I believe, means "Maiden's Bosom."

THE HORNET RASPBERRY.

For the two past seasons fruit of this variety has been exhibited before the Pennsylvania Horticultural Society, and very much admired for its size and beauty. It has now become very popular with amateurs around Philadelphia, all of whom speak of it in the highest terms. We select a medium sized bunch for our illustration.

It is a very distinct variety, being larger than any colored kind we are acquainted with, and of a light transparent red. The flavor is considered by good judges, "best," in those before us merely "good." It is evidently a very abundant bearer, but we have no information as to its hardiness. The flesh is very soft, which may affect it as a market fruit. It was raised by M. Souchet, of Bagnolet, near Paris, France, to whom the community is also indebted for the now well-known Cherry Currant.

WHITE TRANSPARENT RASPBERRY, OR SOUCHETTII.

Like the Hornet, this kind also has been raised by M. Souchet. It is a very peculiar shaped fruit, of a firm yellowish white color, about the same size as the Yellow Antwerp. It is one of the most distinct kinds we have seen, and in these days when it is hard to tell a new kind from the old ones, that is some merit. The flavor does not strike us as remarkable, but we know how difficult it is to decide this point from a few berries, as they vary in that respect even on the same plant.

In order to get our specimens accurate for illustrating, we obtained them through the kindness of Messrs. Aubry and Souchet, of Carpenter's Landing, N. J., one of them son of M. Souchet of Paris.

Allen Raspberry.—We annex a cut of this much spoken of kind, from a small sized specimen grown by A. W. Harrison, Esq., of this place, an enthusiastic amateur pomologist, in whose garden all the most popular varieties are grown with the greatest care and attention. The crop was nearly over when our specimen was gathered, and of course the largest had been taken off.

The Allen is supposed to be an English variety, of which the name has been lost, and was found by Mr. L. F. Allen, growing in an old garden. Though well acquainted with all the most popular English kinds, we can identify this with none that we know; nor has any one, that we are aware of, traced it to any named kind. Unlike most foreign varieties, it is very hardy. The past two winters here have not injured the canes the least. The fruit is very firm and substantial, and though not of the largest size, is very productive.—It has one great fault, namely, a disposition to throw up suckers so innumerably, that where they are suffered to remain and mature, the bearing canes seem quite starved out and become barren. The suckers should be hoed out occasionally, unless propagation is more an object than a great crop.

Fine Late Grapes.—*Kempsey Alicante.*—Bunches six to eight inches long not shouldered, and rather thickly set. Berries very large, from an inch to an inch and a quarter long, and three-quarters to an inch wide; oval. Skin thick and tough, of a deep blue-black color at the apex when ripe, but towards the stalk of a greenish-yellow, mottled with dark purple. Flesh greenish, firm, sweet, and with a fine aroma when fully ripe. Seeds generally one or two only, but sometimes four.

The berries, in size and color, are more like plums. The vine is a free grower, a good bearer, and requires a high temperature to ripen the fruit throughly. The foliage when young is very thin and tender, and covered with a delicate down. This is a very late grape, being fully three weeks or a month later than any other variety; still it forces well, and may also be grown in pots. It will hang till May.—*Cottage Gardener.*

La Versaillaise Currant.—This kind is nearly as large as the *Cherry*, and, as the cut represents, a much longer and handsomer bunch. The flavor is, moreover, free from the acidity that characterizes the Cherry. In this respect it is equal to any kind grown.

New kinds of Currants abound, many of them differing but very slightly from others already out; but we entertain a very high opinion of the present variety, and believe it will soon become very popular. The Currant, above all the small fruits, is the most to be depended on for the certainty of a crop, and we are pleased to see so much attention given towards its improvement.

We have seen engravings of this kind larger than the one here given, and presume, therefore, that ours is but an averaged sized specimen. We are indebted to Mr. F. Heyl for the bunch engraved from.

New or Rare Plants.

Howardia Caracasensis, from Venezuela, is thus described in the *Botanical Magazine:*

"This is, indeed, a very lovely stove-plant, with gracefully drooping panicles of flowers, whose beauty is very much increased by the remarkable enlargement of one of the minute teeth of the calyx into a heart-shaped, petiolated, deep rose-colored, foliaceous *lobe*, similar to what takes place (except in respect of color) in the well-known *Mussæanda* of our stoves. It is a plant, too, interesting in another point of view, as one of a new genus of which the typical species, *Howardia febrifuga*, Weddell, of Bolivia, has been detected as one of the medicinal barks of commerce, and much used by the Bolivians in intermittent fevers."

Æsculus Indica.—As this handsome species of Horse Chestnut will, in all probability, prove quite hardy here, we extract in full what the Botanical Magazine says of it:

"It is not a little remarkable that, although this handsome *Æsculus* was distributed by Dr. Wallich as long ago as 1828, and recorded in his well-known 'Catalogue' as *Pavia Indica* of Colebrooke's MS., and as a native of Kamaon (*Blinkworth*) and of Sirmere (*S. Webb*), it was never described nor further noticed by any author till the appearance of the 'Plantæ Rariores quas in India Orientali collegit Victor Jacquemont: auctore J. Cambessédes,' in 1844.

"'India borealis' is popularly given for the native country of our common Horse-chestnut (*Æsculus Hippocastanum*), but Dr. Royle assures us that 'its native region is still unknown; it is not enumerated in Dr. Wallich's catalogue, nor has it ever been distributed by him. I have never met with it, though often visiting the northern mountains of India, where, if anywhere, it was likely to be found, and where the nearly allied Indian *Pavia* is so abundant.' The *Pavia* (or *Æsculus*) *Indica*, or Indian Horse-chestnut, which we now figure, that author further says, 'is called by the hill-people *Hunour* and *Pangla*, and is found on mountains, at elevations of from 8000 to 10,000 feet, in Kamaon, Gurhwal, and Sirmore, also near the sources of the Ganges, and in Kunawur. It is a lofty and not less ornamental tree than the common Horse-chestnut. The bulky seed, containing a large proportion of fæcula, though combined with some bitter principle, is eaten in the Himalayas, as those of the Horse-chestnut have been in other parts of the world in times of famine. The bark of the latter, from its astringent properties, being employed as a tonic and febrifuge, it is worthy of inquiry whether the Himalayan species of *Pavia* is possessed of any of the same properties.'

"We owe the specimen here figured to C. J. Fox Bunbury, Esq., who transmitted it to us from the family seat at Mildenhall, Suffolk, in July of last year (1858). It was taken from a tree raised from seeds sent by his brother, Colonel Bunbury, from the north of India, sixteen feet high, the circumference of its stem eight inches; its age from the sowing of the seed, seven years; and it had on it, at this early age, twelve panicles of flowers. Of the hardiness of the tree in our climate there can be no question.—Two or three years ago the first flowers were produced, when specimens were also kindly communicated to us by Sir Henry Edward Bunbury, K.C.B."

Angræcum Sesquipedale.—An enormous sized flower, as compared with which *A. Eburneum* sinks into insignificance. The flower is yellowish white, seven inches across, and as sweet as a White Lily. This orchideous plant was brought from Madagascar by the Rev. Mr. Ellis.—*Bot. Mag.*

Bilbergia macrocalyx.—A species of the Pine Apple tribe of stove flowers from Bahia, and quite as handsome as any species before introduced.

Allamanda violaceæ.—Hendersons advertise this new species. It is said to be "by far the most beautiful species in the genus, bearing numerous large flowers not unlike in color those of Gloxinea speciosa."

As a competition plant in collections, A. violaceæ, in its violet-blue tint, offers a new and essential feature in color, there being none other in the same style to associate with the golden-yellow of A. Schotti, and the delicate rosy-blush of Echites and Dipladenia.

Communications.

THE JUNE FROST IN CANADA.

BY JAMES FLEMING, TORONTO.

The frost in this section of country on the 4th of June was certainly the severest I have known for upwards of twenty years; and it has left evidence of its ravages in every garden, orchard and field. All our hardy Grape vines in exposed situations were cut down so severely, that many of the vines will have to make fresh growth from the ground; and the season being so far advanced, there will scarcely be time for the shoots to grow well ripened wood this season.—Our prospect for a crop next year is rather discouraging. Apples are considerably affected. The small fruits, such as Currants, Gooseberries and Strawberries, have suffered severely. The consequence will be a very light crop.

Our market gardeners are the greatest sufferers. The season being very favorable for the growth of vegetables, our garden stuff was far advanced. Many fine patches of early Potatoes were just finished being earthed-up, and would have been ready for the market by the first week of July. They were all cut down to the ground. They are pushing up again now, but will, of course, be two or three weeks later, and the crop will not be so productive. All the early crops of Kidney Beans, Tomatoes, Cucumbers, Melons, and other tender plants, were destroyed. In some instances, Melon and Cucumber plants, protected by frames and covered with glass, were killed. Indian Corn has suffered severely. Many of our forest trees are nipped in their young growth; and in the nursery, the leaves of the young Horse Chestnuts look as red as though a fire had passed through them.

The winter Wheat in the western part of the province is seriously damaged; so much so, that several farmers have cut it for fodder, and are now replanting the ground with Potatoes, or sowing it with Buckwheat.

The lowest point the thermometer indicated during the night of the 4th inst was 27°—five degrees below the freezing-point.

Trusting it will be many years before we shall have to record such another calamity,

I am yours truly, James Fleming.

Toronto, Canada, June 15th, 1859.

P. S.—I inclose a table from the records of the Toronto Observatory, which may be of some use to you:

Memorandum of the coldest days, and the minimum temperature in June, from 1840 to 1859, inclusive:

YEAR.	COLDEST DAYS. DATE.	MEAN.	MINIMUM TEMP.
1840	8th	50.70	36 7
1841	12th	55.00	45.3
1842	11th	45.32	28.1
1843	1st	40.32	28.2
1844	10th	49.71	33.2
1845	6th	52.00	39.6
1846	6th	51.64	39.1
1847	14th	45.70	36.0
1848	12th	49.21	37.4
1849	5th	52.77	35.2
1850	1st	53.12	34.2
1851	3rd	50.97	37.0
1852	10th	48.10	37.2
1853	25th	51.48	39.2
1854	8th	53.60	35.2
1855	11th	48.67	36.2
1856	7th	53.97	42.0
1857	5th	48.35	35.0
1858	12th	53.08	42.5
1859	4th	38.13	30.2
Mean 20 years	9th	49.62	36.37

[We received the above, unfortunately, just too late for our last month's issue; and, as information, the ravages of the frost are now pretty well known. Mr. Fleming's letter, however, contains so very much that will be valuable to refer to as a record in future times, that we could not better fill the little space it occupies.—Ed.]

STRAWBERRIES.

BY DR. J. K. E., DOWNINGTOWN, PA.

Mr. Editor:

From specimens of fruit at our Horticultural Exhibition, presented by and seen at the hothouse of your correspondent, G. T., who procured from Raabe, there is no hesitation in pronouncing them identical with my own *Delices d'Automne*. They bore, under out door culture, *one* tolerable crop last season, and *one* much better this. None in the interval. No indication of perpetual bearing at present.

Should this and every other large variety entirely fail to be perpetual, our hopefulness will, nevertheless, be more than gratified by a survey of the recent vast improvements. Why, my dear sir, we are to have from Watervliet, "a very vigorous grower, equalling Wilson's Albany in productiveness, berries of larger size and brighter color, and not so *acid*;" the Fillmore, which "has proved as far superior to *all* (the *italics* are my own) as Hovey is to old Scarlet." From abroad, Sir Charles Napier, of "most brilliant vermillion color, such as eye never saw before, and *largest possible* size." And, to cap the climax, Downer's Prolific, "equal to McAvoy's Superior or Hovey's Seedling in size, Burr's New Pine in flavor, and *six* times as productive as any of the one hundred varieties cultivated in its vicinity." What more can the most enthusiastic progressive desire? For this have I yearned in my day-dreams for years,—large, productive, and flavor of Burr's New Pine. I hope the seven thousand five hundred will be immediately forthcoming.

What are the hundred varieties cultivated in that vicinity? How productive are they? Could we not have something specific on this important item?

From a remark you once made, I fancied you were sensitive on this subject else you might have been

troubled with some specific details of experiments conducted here with sixty varieties. Suffice to say, that from seventy-five plants of Wilson's Albany planted last autumn, thirty-eight quarts of large berries were picked, some of which large and dark enough to receive the premium over five competitors. Nor is this all. From sixty and one-half square-feet, (11 feet by 5½ feet,) twenty-eight (measurement attested by competent witness) were picked. Is not this coming to the point of productiveness? It is very easy to be deceived by "*guessing*," especially if only seen once, twice or thrice. As an illustration: from a truss of *Triomphe de Gand* eight ripe berries were plucked at one time, measuring, in the aggregate, 2.25 feet in circumference. These were magnificent in appearance and delicious in flavor; yet the variety is less productive than many others.

J. K. E.

Downingtown, July 9th, 1859.

[We certainly have never thought it useful to cultivate a very great variety of any one kind of fruit; but in the case of the Strawberry, greater latitude is desirable through their being, perhaps, more easily affected by local causes than some others. Only experiment on an extensive scale enables one to judge of their comparative value, and these should be repeated in many localities. We are sorry our respected friend did not send along the experiments alluded to. We hope he yet will do so. They will be much valued.—Ed.]

SLATE BOXES.

BY CHARLES H. MILLER.

Editor of the Gardener's Monthly:

Dear Sir—Your correspondent, "H., Bethlehem," in the last issue of the *Monthly*, feels some surprise that slate—a most useful article—is not more used and in more demand for garden purposes. I confess to the same opinion. When its durable qualities and general adaptedness for horticultural uses are considered, I wonder it is not more common

In England it is extensively used in the nurseries and gardens, being especially adapted to the construction of water tanks, stages, walks, and many other uses "too numerous to mention," in plant houses, where it has a clean, neat appearance.

I once saw a fine collection of orchideous plants exhibited at the Chiswick *fete*, all in slate pots or tubs, where they were much admired. They never require soap and water to keep them clean, or paint to keep them from rotting, which is a decided advantage over the common pots and wooden tubs. For large plants, however, they require to be made of more substantial thickness than a common roofing-slate, which would not stand the pressure of the quantity of soil required by large plants, and I do not see the utility of it for small plants, being more costly and less convenient than the common earthen pot.

Tubs or pots of a large size should be, and are generally, made by grooving or dovetailing two of the sides and fitting them together with screws. They can then be easily taken apart or put together,—a great advantage in shifting large trees and plants that require to be kept in pots.

Yours respectfully, C. H. Miller.

OUR ART.

BY E. D.

Much has been written about the noble art of landscape-gardening, and nearly as much has been read; but it strikes me that the subject slips from the pen of the writer even while at work. What he says is seldom more than vague indication, and the reader can as seldom penetrate into the author's mind; and, craving perhaps for instruction, he feels disappointed at the vagueness of that which is offered him. Is the art really a secret? Must it be born with a man—acquired intuitively? Is practice only good for developing, not creating, the faculty? Heartily do I wish for light, and more than one of the many readers which I understand the *Gardener's Monthly* numbers already, will be able and kind enough to give it. Many will thank him for it, I am sure, and I for one.

Yours, Mr. Editor, E. D.

[E. D. is hardly explicit enough, but we print his request in order to elicit the full and proper answer of that "able and kind man." In the mean time we make bold to say that the difficulty lies in the art itself. Can any body teach how a good painting is to be painted? Theory can only give general principles, and their application is too multiform to be attempted in books. Ruskin and Downing are two celebrities, still it is impossible that they can in any way satisfy the student. Painting and landscape-gardening, closely allied, has this also in common, that their theorems are like nothing to their practice. But may the spirit move those of our readers who are able to shed light. We shall welcome them to these columns.—Ed.]

DOWNER'S PROLIFIC SEEDLING STRAWBERRY.

[In our advertising columns will be found an advertisement of Mr. Downer's new Seedling Strawberry. Since its receipt, we have received the communication below, with the certificate appended.

We are free to say that Mr. Downer seems to have taken pains to have the merits of his strawberry as fully attested as it was possible to do in his section of the country. It will be observed, however, that the Albany Seedling—unquestionably the most productive we now have—is not named in the comparison; but if its produce only equals Hovey's or Longworth's Prolific, with the flavor of either Peabody's or Burr's Pine, we shall be satisfied, for a year or so at least.—Ed.]

The undersigned having made a careful examination of a new seedling strawberry at the nursery of J. S. Downer, near Elkton, Todd County, Ky., certify to the following facts:

In a plot of ground containing twelve of the most popular varieties of strawberries, all receiving the same culture and attention, Downer's Prolific Seedling fully equalled the best of the other varieties in size of berry, and any of them in flavor, and far surpassed them all in abundance of yield.

After the vines had been yielding abundantly for three weeks, eight separate plants of Downer's Seedling, taken indiscriminately, showed the following extraordinary yield: 1st plant, 139 berries; 2nd plant, 136 berries; 3rd plant, 138 berries; 4th plant, 103 berries; 5th plant, 94 berries; 6th plant, 79 berries; 7th plant, 99 berries; 8th plant, 240 berries; making an average of 128 berries to each single plant. The other vines, consisting of Longworth's Prolific, Burr's New Pine, Hooker's Seedling, McAvoy's Superior, Peabody's New Hautboy, Myatt's Deptford Pine, Hovey's Seedling, Boston Pine, McAvoy's No. 1, &c., had almost ceased bearing, while at the same date (May 26th) Downer's P. Seedling was still yielding large and delicious fruit in the greatest abundance. Although the season has been very unfavorable, and has resulted in almost a total failure of the other varieties, 110 large and well ripened berries were counted by us on a single plant of Downer's Prolific Seedling.

A. Webber;
J. G. Roach, Elkton, Ky.;
H. G. Petree, " "
H. W. Darnall, Fairview, Ky.;
J. M. Bennett, Pembroke, "
W. H. Sassen, Hopkinsville, Ky.;
Elder P. L. Henderson, Decatur, Ala.;
R. W. Gaines, Hopkinsville, Ky.;
Thomas Green, "
A. C. Goodall, "
T. G. Henry, "
B. H. Brinton, "
James S. Phelps, "
T. S. Bryan, "
E. S. Stuart, Fairview, Kentucky;
R. Vaughan, "
S. C. Mercer, Hopkinsville, Ky.;
E. T. Cabanis, Elkton, Todd Co.,
St. Clair J. Leavell, Trenton.

State of Kentucky, Todd County. } Sct.

I, Ben. T. Perkins, Clerk of the Circuit and County Courts, do certify that the foregoing is a true copy of the original report of the aforesaid Committee. And I do further certify that I am personally acquainted with said Committee, and I unhesitatingly recommend them as gentlemen of high standing in the community, in which they are noted for their legal and scientific attainments, and as such, most implicit confidence can be placed in their statements.

In testimony whereof I have hereto set my hand, and affixed the seal of the Todd County Court, this 1st day of July, 1859. { *Seal* }

Ben. T. Perkins.

Domestic Intelligence.

Hoo Sung—*How to Cook.*—Our friend, La Taste, says, in a late number of his "Buisness Director:"

"This vegetable, which is cultivated in all respects like the lettuce, has a more delicious flavor than the asparagus, for which it is a substitute. It is to be eaten when young and tender, say when about two feet high. The stem, must be striped of its leaves, cut up into lengths of four or five inches, tied in little packages, to keep them together, while cooking, and then dropped into boiling water, and allowed to boil for a few minutes, when it will be done. To serve on the table, make a sauce of a little butter and flour, seasoned to taste with pepper, salt and vinegar. This recipe will answer just as well for asparagus.

New Native Pine.—On the grounds of Col. Bull, near Charleston, S. C., not far from the house, is a pine—Pinus glaber of Walter, who described it about 100 years ago, since which it has been strangely overlooked by botanists. It is a well marked species, is there called the Spruce pine, attains a height of at least 100 feet, and a diameter of more than 3 feet, as I have tested by measuring. It is abundant in the vicinity of Ashley, where Col. Bull and I spent part of a day riding through the woods, searching for the largest. Mr. Ravenel the botanist first re-discovered it a few years ago, but it has not yet been described in our modern Floras.—*Country Gentleman.*

Horticulture for Ladies.—Quoting our article on the "Conservative Influence of Horticulture," a New York correspondent the *Christian Register writes*:

"The benevolent ladies of our own city are beginning to appreciate the value of horticulture as a female employment, and are about to establish a horticultural school for females upon Long Island, where poor orphan girls may be taught gardening as an art. In after years those girls, saved as they will have been from the vicious influences of a large city, and having a stock of robust health and an occupation that will keep their body and mind in active and pleasant exercise, will thank the lady, Mrs. Phelps, who founded it, more by the grand work they shall achieve, than by mere empty words.

"It is a healthy sign of the onward intellectual march of the race, that gardening, as a business, and by amateurs, is becoming more and nore extended, and that the army of civilization is looking with love and fondness at the trees and flowers, the leaves and grass, the blossom and the fruits, that are found with successive beauty upon the waysides of its track through the ages."

Green Tomatoes.—To one gallon of tomatoes, chopped fine and pressed as dry as possible, add three red peppers and three onions, also chopped—one pint of grated horse radish—a half a pint of black mustard seed—two tablespoonsful of ground cloves, one of ground alspice, and one of black pepper. Put in a jar and cover with cold vinegar. You can leave out the onions if you choose. I do, if I expect to see any of my friends during the year.—*Country Gentleman.*

Harris Park.—The work of laying out and grading Harris Park, on the bank of the Susquehanna, below Mulbery Street, has been commenced, and will be pushed through as rapidly as possible. A handsome fence will be erected, grass seed sown, trees and shrubbery planted, and a beautiful fountain placed in the centre of the enclosure.—*Harrisburg Telegraph.*

Pyrularia oleifera.—Among several shrubs which we obtained for cultivation, the *Pyrularia oleifera* or oil-nut is peculiarly interesting. It grows to the height of from five to ten feet, and bears a pear-shaped fruit little more than an inch in diameter, which is so oily that it will burn like a candle if a wick be drawn through it. Squirrels are fond of it, and cattle have a great liking for the young branches and leaves of the *Pyrularia*. Last spring we saw an abundance of it in the edge of some woods fenced into a wheat field, and in October we again went there after the fruit; but the harvest was past,—the field had been pastured with cattle, which had destroyed nearly all of the *Pyrularia*. Hence it has already become rare, and the general occupancy of the mountains with herds of cattle and flocks of sheep would soon destroy it entirely. Mr. Durand, of Philadelphia, thinks that the oil expressed from it is superior to the best olive oil. Our specimens of the *Pyrularia* have been planted at Philadelphia, New York, and at the botanic garden of Cambridge, near Boston, and also some of them have been sent to Paris to the Acclimating Society of France, whose object is to acclimate useful trees, shrubs, and plants.—S. B. Buckley, in *Silliman's Journal.*

Irving Park.—A novel and very admirable idea is in process of being carried out at Tarrytown, on the Hudson. About one hundred acres of ground, adjoining Sleepy Hollow—made memorable by Irving's pen—have been converted into a park, which, when finished, will contain carriage drives of several miles in extent, neatly kept walks for promenaders, and spacious lawns and sloping terraces where children can play and gambol. Within this park are villa sites, from 1 or 2 to 6 or 8 acres in extent, which are for sale; and each purchaser will not only possess a charming homestead, but, also, be guaranteed all the privileges of the park, which ground will be for the use and benefit and under the control of the owners of the sites. It is scarcely necessary to speak of the natural scenery which surrounds this park—enough to say that it commands extensive views of three counties, and of the entire sweep of the Hudson for several miles.

This system of united effort will become the custom when its advantages are more disseminated.—*Horticulturist.*

Sowing Peas.—F. R. Elliott, of Cleveland, writing to the *American Farmer's Magazine*, says:—"Some years since, I commenced sowing peas, and covering them at different depths, varying from one inch to one foot. I found those buried eight inches deep appeared above the ground only one day later than those buried only two inches; while those that were covered twelve inches deep were a little over two days behind. As they grew, no perceptible difference was noticed, until they commenced blossoming and setting, then the advantage of the deep planting exhibited itself; for those that were eight and ten inches deep continued to grow, blossom, and set pods long after those only two or four inches commenced ripening and decaying. If the soil is light and loamy, I will hereafter plant my peas eight inches deep; If the soil is clayey, I would plant six inches. I never earth up, but leave the ground as level as possible."

The Adair Strawberry Melon was raised, says Mr. Briggs, in the *Country Gentleman*, by Mr. Adair, of Kentucky, who has made two barrels of molasses from the juice of the Strawberry Melon in a season, of excellent quality. This melon is medium size, (about 10 or 12 lbs.); red flesh; seeds white, and rather small; rind mottled green; form long oval; flavor *all* that is desirable in a melon. It is also early and prolific.

Foreign Intelligence.

[From the Botanische Notizen aus Griechenland.]

SOMETHING ABOUT VEGETATION IN GREECE.

BY DR. LANDERER.

Fungi require a humid atmosphere, and therefore love forest shade and dark and humid places. Such are scarce in Greece, and consequently the fungi; nor will the Greek eat what offers in the way of eatable fungus, as he is prejudiced against their use. Of such as are found I mention particularly *Agaricus campestris*, which appears on the roots of the Mulberry, and so thickly, that hundreds of them are but the growth of a couple of days. *Boleus ignilarius* is formed on fruit trees. This sponge is prepared in Macedonia, with *Melilotus officinalis* and other aromatic plants, and sent to market at Constantinople. There the Tsimbuk oglan—that is, the "pipe-boy"—puts it on the pipe of the Effendim.

Hesperian Fruit.—Hercules, says the mythology, brought the golden fruit of the Hesperides to Greece. Southern Greece and the islands of the Archipelagus produce them freely. They grow everywhere, and, irrigation excepted, no further labor is necessary but to gather the ripe fruit. The Greeks like best of them the Portugal *Citrus aurantium*. It is a custom with them to give such an orange to a visitor who is about to leave; and if the visitor any way likes his host,—is satisfied with his reception, etc.,—he will take care to carry the golden fruit in his hand out of the house, and not to pocket it sooner.

In good years, from forty to fifty millions of oranges and lemons are exported to Constantinople and the ports of Asia Minor. As many are consumed at home. The Greeks stew the unripe fruit, and make *gluco* of it—sherbet. The peel or skin is thrown away, and the little that is wanted for medical purposes is actually imported into the country.

The bitter Pomerance—*Neraulia nikra, Citrus Bigardia*—is found on the Continent and the isles, but nothing is made of it.

C. Bergamia and *Lumma*, the sweet lemon, grows on Naxos.

The commonest kind is the Lemon, *Citrus Limonium*. The body of the dead gets a lemon in its hand, and the attendants of a funeral also carry a lemon—a custom prevailing in nearly every country where lemons grow.

The Jews make a specific against cholera by mixing the tincture Mastilis with the ethereal oil and the juice of the skin of *Citrus decumana*. This lemon, which grows in Naxos, also makes a nice preserve. The Jews take a particular interest in this lemon, because they say it is the apple of Paradise—that but too famous apple—perhaps from the indentations of the skin, which almost look like bites.

Magnolia grandiflora, the finest tree of the American forests, an evergreen from 60 to 70 feet high, is also found on the Ionian Islands, especially Corfu, and is an ornament of the gardens of rich English people there. The flowers yield a fat, odoriferous oil, which brings a high price, and is said to be a preventive against the falling out of the hair. These pomatums and oils can be made by an infusion of the oil of almonds, or of a scentless fat, on the fresh Magnolia flowers, and they are truly delightful.

Holcus saccharatus.—The English Government has made experiments on a large scale with this plant on the Ionian Islands. Sugar and spirits of wine, especially the latter, are said to be produced from it.—These trials promised success, and are continued.

Climbing plants abound in the forests of Greece. The commonest is *Bignonia radicans*, Trumpet-flower; further, *Paullinia cicuru, Urceola elastica, Pothos funifera*. These and the Ivies, which often assume a tree-like habit, not only cover the trees, but, after having climbed high up, descend as deeply, take new root, ascend again, run from tree to tree, and form impenetrable walls, which the axe alone can clear.

FRUIT GARDEN OF THE CHATEAU DE VERVAINE, IN FRANCE.

In one of our earlier numbers we alluded to the difficulty beginning to be experienced in many parts near our large cities, with regard to the raising of most kinds of fruits, and suggested whether it was not time seriously to think of training trees on walls, and in espaliers, after the European methods, in order the better to guard them against insects more readily, as well as to protect them from the vicissitudes of climate. We beg again to call our readers' attention to the subject, and extract from the *Gardener's Chronicle* the following French translation of some results of these practices:

"The Chateau de Vervaine, about 2½ miles from Alencon, on the road to Brittany, besides possessing the finest orchard in France, has a park of at least 120 acres. We will not stop, however, to give a detailed description of this park, kept up in good style, and affording, with its pieces of water, cascades, and varied surface, a great variety of views. We will merely remark on the number and beauty of the evergreen trees, such as Araucarias and many of Conifers; together with Taxodium distichum and American Oaks, which occured at frequent intervals.

"The fruit garden, which was the object of our visit, consists of four inclosures, adjoining each other, and surrounded by walls; the area of the whole is nearly 3½ acres. It contained four years ago a number of wall trees, the greater part of which were in bad condition, trees in the open ground, trained in the conical form and planted in the borders round each of the vegetable quarters. By this bad management, which is still too much adopted, the trees injured the crops, which they almost entirely overshaded, and were also prejudicial to the wall trees, to which they were too closely planted. Moreover, owing to the moisture of the climate they soon became covered with Moss, which besides giving them a melancholy aspect, affected their production and longevity to a considerable extent.

"M. Du Breuil was then employed to remedy this state of things, but to avoid at the same time any diminution, however temporary, in the produce of fruit. This condition, sufficiently embarrassing, was strictly fulfilled by the application of the new system of the learned arboriculturist, the principal advantage of which consists in inducing a full state of bearing eight years sooner than by the old mode of culture.

"To obtain this result, M. du Breuil commenced by planting afresh, *en cordon oblique* (in oblique lines), the greater part of the walls where the produce of the trees had become almost insignificant.

"The next thing was to replace the trees in the open ground distributed round the kitchen garden quarters. It is here that the method of M. du Breuel presents the greatest innovation. He distributed over a third of one of the enclosures double espaliers, with perpendicular arms (*en cordon vertical*), disposed in the middle of four parallel beds, running north and south. These beds were 6½ feet wide and 138 feet long, and separated by footpaths 3 feet 3 inches wide. The trellises were formed of upright laths about 1 foot apart, with a strong post 5½ inches diameter, and 9 feet 9 inches high, at every 19½ feet. The entire system was kept in its place by strong iron wires having their extremities fixed in the walls, and which crossed each other at the top of the posts. Each line bears two rows of trees trained against it *en cordon vertical*.

"When the espalier trees which have been planted two years bear fruit all the conical trees will be cut down, and the ground which they occupy cropped with vegetables to make up for the space taken up by the new arrangement. We will now follow M. du Breuil in the examination of the different kinds of trees, some of which have been reserved for a practical demonstration of his new mode of short pruning.

"*Pears.*—Wall trees, in oblique lines, against a south aspect, are composed of varieties of winter fruit: the trees are planted at 16 inches apart along a wall 410 feet long. Two-thirds of this length have been planted three years. They cover two-thirds the height of the wall, and have already borne fruit.

"Double perpendicular espaliers: the trees are planted about a foot apart along 344 feet, or we may say 688 of single espalier. These trees, which occupy two lines and a half of the new plantation above mentioned, have been planted two years; they consist of summer and autumn varieties. Old trees, trained horizontally against a north wall, are the only ones of the old plantation which will be perserved.

"*Peaches* are planted 16 inches apart against an east aspect wall, 180 feet long, and trained in oblique lines. The trees have been planted three years, and have almost reached the top of the wall. The short pinching has succeeded perfectly. The stems were almost hid by the number of flowers borne on the spurs. Along 75 feet of the same aspect the trees were trained in the same manner, but planted 2½ feet apart, and the shoots pinched at greater length. The trees, three years old, and very fine, have reached the top of the wall.

"*Cherries.*—Against 144 feet of south wall the trees were planted

16 inches apart. They are three years old and had nearly reached the top of the wall; they were covered with flower buds. Others were planted about a foot apart, along 138 feet of double espalier.

"*Plums.*—Against a south wall, 98 feet long, with a south aspect, the trees were planted 16 inches apart, and trained in oblique lines; and against 69 feet of double espalier the trees were about a foot apart and trained upright.

"*Apricots.*—Planted 16 inches apart as a single espalier, and trained in oblique lines. The espalier, 138 feet long, is sheltered on the west side by straw mats from top to bottom, and by a straw coping projecting 23 inches. This shelter is necessary from the middle of February until the end of May; they are then removed, and by this means Apricots ripened in the open air are obtained of much better quality than from a wall.

"*Vines.*—A wall 108 feet long is planted with vines about 41 inches apart. They are trained with single perpendicular and opposite laterals. Another wall, 98 feet long, is planted with vines 27 inches apart, trained with a single perpendicular and alternate laterals. These walls have an east aspect, and are covered with glass, the humidity of the climate being unfavorable for the ripening of grapes.

"*Apples.*—These are trained horizontally along the sides of the wall and espalier borders; their total extent is 2348 feet. The trees are planted 6½ feet apart, and about a foot from the edge of the walks.

"*Currants.*—These are trained vertically against a dwarf wall facing the west, length 98 feet. Also against an espalier 4 feet high and 138 feet in length. They are planted 8 inches apart.

"*Gooseberries.*—Eighteen plants of these are trained in the form of goblets on wire framework.

"*Raspberries.*—Cultivated in line against a dwarf wall 164 feet long, facing the west.

"The total extent of walls and espaliers is thus described:

	Feet.
"Pears on walls,	876
Pears on espaliers,	688
Peaches on walls,	255
Cherries on walls,	144
Cherries on espaliers,	275
Plums on walls,	98
Plums on espaliers,	138
Apricots on espaliers,	138
Vines on glazed wall,	206
Vines in pits,	301
Currants on walls,	89
Currants on espalier,	138
Raspberries in line,	16s
Apples trained horizontally,	2348
	5857

"The crop of stone-fruits is secured by straw coping projecting nearly 2 feet, and by thin canvas attached to the edge of the coping, and slanting to 4 feet 10 inches from the bottomt of the wall. The espaliers, owing to the manner in which the wires that steady the posts are placed, may easily be protected by thin canvas, which is left on for a longer or shorter time according to the state of the weather.

"We have already stated that by the new method adopted by M. du Breuil there is a considerable decrease in the time required for the formation of the trees. Indeed, the wall trees at Vervaine, although only three and four years old, are already in bearing. In other three years they will have reached the top of the wall, and will be in full bearing. The perpendicular espaliers, planted last year, will be completely formed in five years; while by the old mode it required on the average 16 years for the complete formation of wall trees, and 14 years for standards or pyramids.

"This early bearing has no prejudicial effect on the quantity of fruit produced. On calculation it will be found that on equal surfaces of wall the length of fruit-bearing wood trained in oblique lines will be just as much as if trained horizontally; and the perpendicular espaliers will yield on the same extent of ground a crop greater by one-half than trees in the conical form.

"Such are the results of the transformation directed by M. du Breuil, and carried out with rare skill by the active and intelligent gardener at the Chateau de Vervaine, M. Chouquet.

"The transformation is now complete, and the result is the finest fruit garden established in modern times. Its extraordinary extent, the attention paid to keeping the ground and the trees, the good arrangement of the shelters, the elegance and strength of the espaliers, and above all the application of the improved practice of modern arboriculture render it a complete model garden which one cannot behold without the greatest admiration."

The Manna of the Bible flows from the bark of the Tarafa tree (*Tamarix mannifera*) in conse quence of punctures made into it by an insect—*coccus manniparus*—which lives on the tree. Solid pieces of some size can only be obtained before sunrise; later they melt. This is the manna on which the Jews, according to the Bible, subsisted for forty years. The monks in the convents on the Sinai eat this manna, and make presents of it, done up in tin boxes, to strangers visiting them. It is a soft, greasy, buttery mass, with plenty of the leaf-scales of the Tamarix worked up in it. To get rid of these scales, it is only necessary to dissolue the mass in water. Sherbet is made of it, and occasionally it is administered in the form of medicine. — *Translated from Regensburger Flora.*

Dutch Encouragement of Science. — The Dutch Government is constantly drawing the world's available talent into its service for the purpose of bringing out the resources of its colonies. The largest of these, the rich Island of Java, is especially favored. It has been scientifically explored in most directions from the coast, and these scientific reports have been made the basis for practical purposes, such as the establishment of plantations for raising coffee, quinine, etc. Lately the Dutch Government have made proposals to that famous German botanist, Dr. von Siebold, to go and serve in the staff of the Dutch Governor of Java. Should he accept, the botanical world will probably be again enriched through him as much as it has been before by his travels in Japan.—*Translated from Bonplandia.*

Locust Roots Poisonous.—The Hungarian *Quarterly for Practical Pharmacy* relates instances of children having got poisoned by chewing freshly dug-up roots of Locust, Robinia pseudo-acacia. Strong emetics cured them, and it was noticed that one of the children, who suffered of intermittent fever, seemed to have got completely cured of it by the poison. The roots of some of the true Acacias are also considered poisonous. — *Translated from Botanische Zeitung.*

Dr. Vogel's Work.—The third volume of Dr. Vogel's Travels in Central Africa has now appeared in Leipsic. A very interesting sketch of the life of this justly renowned and apparently lost traveller has been added to the book. An English translation is, no doubt, in progress.—*Bonplandia.*

Cucumber Mangoes.—Take large Cucumbers; cut a long slice out of their sides, so as to take out the seeds. Then mix with part of the seeds some White Mustard seed, shred garlic and grated Horseradish. With this stuff the Cucumbers as full as possible, and replace the piece that was cut off, binding it with thread. Pour hot vinegar over them for three successive days. The last time boil with the vinegar, pepper, flour of mustard, and some salt. Put the cucumbers into jars, and pour over them the boiling vinegar; and, when cold, cover them closely.

Foreign Correspondence.

From Our English Correspondent.

Sheffield, May 31, 1859.

Up to this date, the out-door gardening has been nearly a complete failure, in consequence of the prevalence of a continued north-east wind, and sharp frosts at night. Most of the early vegetables have been fearfully cut up. Indeed, we are depending mostly on our second crops for a suitable supply.—Many crops of early Potatoes are killed to the ground. The fruit crop has been most severely handled, and a heavy loss will be the result. The Apricots, in most places, have been nearly all swept away.

The best crop we have seen anywhere this season is at Wentworth, the seat of Earl Fitzwilliam, where every precaution has been taken to preserve the tender blossom from the cutting winds,—the result is satisfactory, and the crop will pay.

The Apple and Pear bloom also is severely cut up, and the crop is likely to be very thin. In many places the Raspberries are killed back, and the Roses (more particularly any of the tender kinds) are very much damaged.

When at Wentworth, a few days ago, I saw the result of an experiment, which promises well, in striking cuttings of Calceolarias, &c., for bedding out in the summer. They were simply taken off when most plentiful in the autumn, and a common garden frame placed on the ground. Within this frame a prepared bed of nice earth, to the depth of a few inches, was made ready for the cuttings, which were then inserted all over the space, a few inches apart from each other, to give room for growth and for the admission of light and circulation of air. There seems to have been little more care bestowed upon them than the occasional admission of air and water. Here they had been throughout the entire winter, with only a very slight protection; and the result was all that could be desired. Perhaps in America, where the winters are more severe than in England, it would be requisite to provide a thick protective.

We tried an experiment last autumn, on raising Calceolarias for bedding out purposes, which has succeeded beyond our expectations. We took the cuttings late in the season—about the beginning of October put six or eight in each pot, and plunged them in an old Cucumber bed, without heat. These were watered and kept close for some days after being taken, and had little more attention than opening the slides to catch a shower of rain, or for the purpose of ventilating to prevent damp. These remained in this frame until the 12th of December, and were then removed to a cold greenhouse, where they remained in their cutting pots until spring. About the middle of February we potted these off in small pots, gave them a little heat, and were furnished with an abundance of as fine, healthy, bushy plants as the most fastidious could well desire. Nearly every cutting struck root; and many varieties, such as "Kentish Hero," and others which are very bad to raise when heat is applied, seem to grow most easily when treated on this plan, and they also appear capable of standing more cold and hardships than when raised on hotbeds. I have raised numbers of Roses on the same principle; and where time is of small consequence, the process is slow but sure.

We have tried many ways of preserving Scarlet Geraniums throughout the winter months. Their propagation is very simple. They can be easily raised by cuttings inserted in the open ground early in August; but when taken up from the borders in the autumn and potted for the next season, then the room required in winter is important. We have heard of persons preserving them in cellars, and I have tried this experiment, but never succeeded well. Last autumn I took up a large quantity and potted the best, not reducing either the roots or branches, and the remainder, treated in the following manner, was satisfactory. We had some boxes 1 foot by 4, and about 6 inches deep. A few holes were made in the bottom, and filled with soil. The plants were pruned closely in, so as to pack closely, watered well to settle the soil, stood in a sunny situation for some four or five days to heal the cuts, and then removed to any spare place convenient. About the middle of February they commenced growing freely. Some of these were at once potted, and made fine plants; others were hardened off in the boxes, and planted out from them, and are growing exceedingly well.—The same treatment seems to be applicable to Tea-scented Roses, Cupheas, Ageratums, and other "bedders."

The Tritoma uvaria is greatly in demand for outdoor effect. It is hardly possible to over-estimate the grandeur and beauty of this magnificent plant; and when some of the large beds that are this season planted, get established as blooming plants, and we are permitted to see it in masses, we shall then be more fully able to comprehend its great beauty. We have tried it as a conservatory plant, but the experiment was not to our satisfaction. Out in the open garden seems to be its suitable home. With us it is perfectly hardy, and we have not heard any complaints from our friends, as to its being tender.

[We left out a plant last winter quite unprotected, and though it is just sufficiently alive "to swear to," it evidently will be best here to give it a slight protection, which it is easy to do. *Tritoma media*, if that is the other kind alluded to by our correspondent, we flowered last year, but it came into bloom so very late,—just as the frosts came, in fact,—that we did not form a favorable opinion of it for our climate.—Ed. G. M.]

There are two varieties, one much better than the other; but both of them are well worth having, and

would, if mixed, form a pleasing change in round beds where a good centre plant is required. The Tritoma forms a very desirable addition to our out-door ornaments. When not in flower, it is a handsome, graceful, grassy-looking plant, and being evergreen renders it still more attractive and desirable.

This plant for a centre, with a circle of good scarlet Geraniums, then a ring of yellow Calceolarias, fringed round with that beautiful variegated Geranium, Mrs. Lennox, or with Verbenas. These, on a good grass verge, require very little attention, are easily kept and propagated, and they produce for a long period of time, one of the most brilliant and attractive assemblages of beauty that we could desire. The Tritoma may be taken up in winter, if any danger is apprehended, and will stand well in any place suitable for Geraniums, or any shelter above the freezing-point.

I saw, last season, a small garden laid out in the *Dutch* style, with *Asphalte walks*, sparkling with white *Derbyshire spar*, which glittered like diamonds in the sun. A suitable white-edge stone marked out the boundary and shape of each bed, which just at that time happened to be at its best. One bed was filled with *Linum grandiflorum rubrum*, and was very beautiful. We understood that this bed had been very fine for four weeks when we saw it. Another bed, filled with the new and charming *Acroclineum roseum** was very pretty; and also two beds of *Rhodanthe Manglesii*, which is very durable and elegant in its habit and flower. These two latter varieties are almost indispensable for conservatory or drawing-room decoration throughout the advanced summer.

Amongst the new Gloxineas, Sir Hugo is a new color, and a most pleasant one. It is of the deepest purplish blue, not so large as some, but very free in blooming. A very splendid seedling has been produced, with variegated leaves, and large, fine, clear, blue flowers—a very desirable variety. There is also a hybrid between Grand Sultan and Duke of Wellington, which is the finest of all the class. It will probably get into the market next season.

Tydea Meyerbeer is one of a set of this variety, which we have had under cultivation for some time. They are all of them very pretty *when* they bloom; but they so seldom flower, that we feel a little out of patience with them. One or two of them are not very fine, even when they bloom; but we are glad to say this *T. Meyerbeer* is *first-rate* in every particular. We have a plant now in a five-inch diameter pot, which was raised from a cutting last February, and this plant is now about one foot high, and filled with blossom buds. The parent plant to this has been completely loaded with flowers for six months.—Throughout the entire winter our stove has been enlivened with this charming plant. It is not a scrambling grower like *Artogesii*. Two feet seems to be its maximum height. The leaves are very much like *T. Eckhautii*, but the flowers are very different, and are, by far, the most handsome of any we have yet seen. The tube is about an inch long, swelling out in the centre, of great substance, and a vivid reddish crimson. The face of the flower is about an inch in diameter, and is spotted throughout with a fine clear red on a yellow ground. Altogether, the plant is a good bloomer, a handsome grower, and is worthy of a place in any collection, either as a variegated foliaged plant or a producer of flowers merely.

There is a stove climber very deserving of extensive patronage. It is not a new plant. It has been nearly lost in this country, until the last few years. It has got into the hands of some good growers, and they have developed its beauties in such a way as to win high favors from all who have seen them. You may have it in your country. It is generally known here as *Ipomœa pentantha.*† The flowers are produced in the greatest profusion, and are of the most intense and beautiful blue color imaginable. They are small in comparison to some of the *Ipomœas*, but their number makes ample compensation for their deficiency in size. We should suppose this plant would form a very charming climber for your continent.—Amongst variegated plants for the stove,—and we may say this family is highly in favor,—we find some of the Begonias very generally cultivated. B. Rex can be grown very large, with immense leaves, and is very charming and attractive. It does best in a mixture of leaf-mould and a little sand. This mixture seems to suit the whole family admirably. Begonia ricinifolia maculata is very beautifully marked. Many of this family are very attractive, not only for the beauty of their foliage, but also the freedom with which they bloom.

Caladium discolor has long been a favorite in our stoves and hothouses, as also is C. picturatum.

On all sides of us, throughout this country wherever we go, we are delighted to find the fact daily made more clear to us, that horticulture and floriculture are fast becoming an institution of this nation, growing up with our civilization and increasing with our progress and development. The taste for ornamental gardening is shown everywhere, and it is probable that, in the course of a few years, vineries and plant houses will be erected in connection with all mansions. Even those of modest dimension are now generally accompanied with some building suitable for the cultivation or protection of fruits and flowers.

The Horticultural Exhibitions of the present season have received unprecedented patronage. The Crystal Palace Show was a triumph,—a glorious assemblage of the finest plants ever seen, and was thronged by a multitude of the great and wealthy, and not a few of the working classes. It seemed as if all London had risen to do honor to the genius and taste of the gardeners of this country. Every thing was magnificent, grand and vast. Many of the specimens were prodogies, and displayed the highest skill and taste. The same may be said of the other London Shows. So far, they have been improvements on the past; and so many new and beautiful candidates have been presented to our notice, that we could scarcely make a selection short of several columns.

Last week the men of Manchester held their "Fête" in the Botanical Gardens there, when the largest number that ever visited was present. The plants were of the finest kinds, and cultivated in grand style, and they were arranged with high taste. The large Exhibition House (described in a late number) was completely filled with plants, and formed a most imposing sight. In other parts of the country the same result is produced. Fruits, flowers and vegetables are cultivated better and more extensively than ever they were, and the growing taste for gardening is going ahead very satisfactorily.

* This we find to succeed very well this season.

† It is not in our collections.

Horticultural Societies.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting for July was held on the 19th ult.

The fruit table was on this occasion the great centre of attraction.

Amongst the newer Raspberries was *Merveille des Quatre Saisons*, the fruit larger than we ever saw any other kind. We were informed that this was the second crop it had borne this season.

Another kind, called *Thomas' Seedling*, had a very showy appearance, and may probably be sufficiently distinct from others to be valuable.

There was also a dish marked *Transparent*.

A dish of Blackberries, marked *Watson's Seedling*, appeared to us to be *Dorchester*, not so fine as the New Rochelles on exhibition, but much sweeter.

The New Rochelles were very numerous, and of enormous size.

Gooseberries were abundant, including *Houghton's Seedling* amongst the native sorts.

Amongst the Nectarines, the *Downton* and *Vermash* were conspicuous for their beauty.

The *Moorpark* Apricot was very fine for forced fruit.

The Grapes were very fine, but we noticed nothing remarkably novel amongst them, and the same may be said of other things.

Amongst the Flowers there were few novelties.

Plumiera rosea, an old but very rare hothouse plant, was beautifully in bloom, and two new *Begonias*, *Madam Wagner* and *Picta* were the chief individuals of interest.

Tapania splendens, a dwarf Achimenes-like plant, was very pretty.

A remarkably showy specimen of the old *Caladium bicolor*, having its green leaves freely marked with rosy pink, is worthy of note.

The Vegetable table was, as usual, well filled with well-grown articles, but we saw nothing requiring special note, except a specimen of a Cucumber in a pot, with 7 fine fruit on it, which was one of the finest we ever saw, and attr[illegible]cted a great deal of notice.

[illegible] REPORT

[OFFICIA[illegible].]

The stated meeting of the Society [illegible] month of July was held on Tuesday evening the 19th ult., [illegible]cert Hall.

The number of baskets, table designs [illegible] hand bouquets was unusually large, and their remarkable bea[illegible] and taste displayed in the arrangement of the flowers was the subject of universal remark and congratulation. The tables were also well filled with Nectarines, Apricots, Plums, Apples, Pears, Pine Apples, Raspberries, Blackberries, Gooseberries and Currants; and their perfection elicited the admiration of all. We are glad to see the interest shown in the cultivation of the Blackberry, which though one of the most healthful and pleasant of our small fruit, has, until recently, been left entirely to the forest and hedge-row; now, however, its cultivation as a garden plant has been taken up, and we hope to see new varieties produced, even superior if possible to the "Lawton." Who will not try the delicious "Dewberry?"

The Committee on Plants and Cut Flowers awarded the following premiums: For Fuchsias, best to John Pollock. Gloxineas, best to the same; collection of ten plants, best to the same; six plants, best to Matthew Hegarty. Specimen Plants—First class, best to James Eadie; second best to John Pollock. New Plants—a premium of $3 to Charles E. Sutherland, for a beautiful display of new Begonias, Madam Wagner, and Picta, and Tapania splendens Table designs—best to Robert Kilvington, second best to J. J. Habermehl. Baskets—best to Christian Mack, second best to Henry A. Dreer. Bouquets—best pair to Henry A. Dreer, second best to J. J. Habermehl. Also, special premiums of $2 to James Eadie for collection of Achimines, of $1 to Peter Mackenzie for a collection; of $1 to Peter Raabe for Plumiera and Rhopala. The Bouquets of Mr. Kilvington, were considered very beautiful, and the Committee called particular attention to them, but being so dissimilar in color, they could not be classed as a pair.

The plants and cut flowers on the tables were exhibited by Matthew Hegarty, gardener to Joseph Harrison; Peter Raabe, Christian Mack, gardener to B. P. Hutchinson; James Eadie, gardener to Dr., James Rush; J. J. Habermehl, gardener to John Lambert; Robert Kilvington, Peter Mackenzie, Charles E. Sutherland, gardener to B. A. Fahnestock, and John Pollock, gardener [illegible] James Dundas.

Vegetables, by A. L. Felten. A. Felten, gardener to Henry Duhring, J. B. Baxter; Thomas Meghran, gardener to Joseph Ripka.

The fruits were by John Lauders, gardener to S. T. Altemus; Mark Hill, gardener to M. W. Baldwin; Samuel H. Simpson, gardener to Alexander H. Brown; James Thomas, gardener to A. J. Bucknor; Christian Mack, gardener to B P. Hutchinson, J. B. Baxter; John Brooks, gardener to C. F. Abbott; P. S. Bunting, S. W. Noble; A. Felten, gardener to Henry Duhring; A. L. Felten.

The Committee on Fruits made the following awards:

For Black Grapes—best to John Lauders; second best to Mark Hill. White Tokay Grapes—best to John Lauders; for White Frontignac, to Mark Hill. Apricots, "Moorpark"—best to Christian Mack. Plums—best to Alexander Parker. Gooseberries—best to John Lauders. Raspberries (Red)—"Merveille des quatre saisons"—best to Mark Hill. Raspberries (White), "Blanch"—best to James Thomas. Currants—best to A. Felten. Blackberries ("Lawton")—best to Mark Hill. Second best to A. L. Felten. The Committee call attention to a dish of Watson's Seedling Blackberry, having the characteristics of the "Dorchester;" a special premium of $2 to John Brooks for two Pine Apples in pots; Nectarines not being in competition until next month, the Committee defer giving a premium, but call attention to a very fine dish of "Downton," from John Lauders, also to a dish of fine ones, "Vermash," deposited by Samuel H. Simpson.

The Committee on Vegetables, award for Tomatoes—best to A. Felten. Second best to Thomas Meghran. Beans—best to the same. Second best, another variety, to the same. Carrots—best to John Cook. Squashes—best to A. Felten. Corn—best to Thomas Meghran, also, a special premium of $1 for a fine specimen of Cucumber grown in a pot.

A number of new members were elected and several more proposed.

The Secretary notices in a morning paper that "the Society adjourned to meet on the third Tuesday in September, dispensing with the meeting in August." This report is incorrect as no such action was had. The next meeting will be as usual on the third Tuesday in August.

Henry Hay,
Recording Secretary.

SUSQUEHANNA AND CHEMUNG HORTICULTURAL SOCIETY.

We inadvertently stated in yesterday's *Press* that E. P. Brooks, Esq., was President of the Horticultural Society. He is simply Secretary of the Society, and to Col. E. C. Frost belongs the honor of presiding over its deliberations. All we said, however' in regard to Mr. Brooks' services in promoting the objects of the Society, we reiterate and in this connection cannot refrain from bearing our mead of praise in behalf of the untiring zeal and efficiency with which Col. Frost also discharges his duties. The Colonel takes a deep interest in all matters pertaining to agriculture, and whether as an officer of the State Society or of the Susquehanna and Chemung Valley Horticultural Society, he is the same urbane, indefatigable, go-ahead man—inspiring all around him with more or less of the enthusiasm he feels as one of the noble tillers of the soil.—*Elmira Press.*

[We learn from a private source that this Society is in a very prosperous condition, and doing much good. It cannot be otherwise when the ladies take so active a part in its welfare. Nearly one-half the premiums awarded at the late exhibition, were to lady exhibitors, and the Committees are formed, in good part from the ranks of the fair sex.

The society should look after their Committee on Wines. They report to testing 26 bottles, while the Secretary attests to 19 bottles being entered; from which we gather, that by the time they got to the 16th, the bottles "appeared double," and which we suppose very natural.—Ed.]

WEST CHESTER (PA.) HORTICULTURAL SOCIETY.

The Eighth Horticultural and Industrial Exhibition of the Chester County (Pa.) Horticultural Society was held in the Society's Hall on the 17th and 18th days of June.

The spacious room was beautifully decorated with wreaths and designs of evergreens and flowers. The tables were covered with delicious looking Strawberries, Cherries, Grapes (forced), etc; whilst the fragrance from the numerous bouquets and baskets of flowers rendered it truly enchanting. On the eastern wall were suspended large mottoes, with the words "Flora," "Pomona" and "Ceres," handsomely formed of sprigs of arborvitæ, and surrounded by appropriate wreaths of flowers, fruits and grain.

The fountain in the centre of the hall was continually in opera-

tion, which preserved the [illegible] and on either side was placed a large desig[illegible] and flowers.
The display of Vegetables [illegible] much credit [illegible] than usual, but such as were exhibited reflect [illegible] on the growers.
The Fruit department [illegible] admired, and the numerous varieties of Strawbe[illegible] evidently showed great skill in the depositors; whilst the [illegible] new kinds exhibited was a proof of the determination to "[illegible] all, and hold fast what is good." One of the most attractive objects was the fine display of forced Grapes, the growth of an energetic and successful member, among which we noticed bunches of Golden Hamburg and Bowood Muscat.
Altogether, the members have much cause to be encouraged in their praiseworthy undertaking.

[In addition to the above, we have received the following from a friend who was present.—Ed.]

The Strawberries deposited by Dr. J. K. Eshleman were very fine, and he was awarded most of the premiums.
The best flavored kinds were Vicomptesse Hericart de Thury, Triomphe de Gaud, Peabody, Walker and Hooker, none of them very good bearers. But the strawberry for the *million* is the *Albany*. It will revolutionize the business in a few years; for we will see the fruit so plentiful in our markets, that the poorest man on earth can enjoy them to the fullest extent. And they are not so acid when fully ripe as some growers say. The reason they are gathered when they are scarlet, instead of leaving them on the vines until crimson: they are then excellent.
I see, by an article in the *Country Gentleman*, that *L. Menand*, of Albany, grows only the Albany Strawberry. Like the old Friend remarked in meeting, "That friend speaks my mind."

MOBILE AGRICULTURAL AND HORTICULTURAL SOCIETY.

This is the oldest Society of this kind in Alabama, and it has exerted a most excellent influence in improving the agriculture and horticulture in the vicinity of Mobile.

HORTICULTURAL SOCIETY OF SOUTHERN ILLINOIS.

This Society held an exhibition at Jonesboro last week. Considering that this was the first attempt at a horticultural exhibition in Southern Illinois, it gave good satisfaction.
Among the Strawberries on exhibition, were some forty varieties brought from Cincinnati by Dr. Warder.
Specimens of Wilson's Albany, presented by William Yates, of Tamaroa, were magnificent, many of them measuring more than three inches in circumference.
The Roses had passed their prime some three weeks, still there was a good show.
Southern Illinoisians are turning their attention to horticulture, ladies as well as gentlemen, and in a limited time Southern Illinois will "bud and blossom as the rose," and will become, as a fruit region, unrivalled by any portion of the United States.—*N. W. Prairie Farmer.*

MISSISSIPPI VALLEY HORTICULTURAL SOCIETY.

This Society held a very interesting meeting at the *Valley Farmer* office, on Saturday the 14th inst. It was determined to hold monthly exhibitions of fruits, flowers and vegetables. The first exhibition will be held at Wyman's Hall, on the 26th and 27th of the present month. It will be free to all, and the public are invited.
The President appointed the following Standing Committees:
On Fruits.—F. R. Elliot, N. J. Colman, Geo. Husman, Thomas Allen, Charles Kennicott.
On Flowers.—E. C. Cransnick, Carew Sanders, J. T. Reed Henry Shaw, James Chalmers.
On Vegetables.—Charles Connon, W. T. Cozzens, J. H. Tice, M. W. Manning, M. G. Kern.
This Society holds its regular meetings on the second and fourth Saturdays of each month, at 2 o'clock, P. M., at the office of the *Valley Farmer.*
At the last two meetings, the raspberry has been quite fully discussed. The members agree that the Black Cap thus far has proved the most profitable variety for market cultivation here. Since the last meeting, however, this raspberry has been shipped here from Cincinnati, at the rate, we should judge, of fifty bushels per day, knocking the price down from forty to fifteen cents per quart. The raspberry growers hereabouts are not very well pleased at this state of affairs. The Black Cap bears carriage remarkably well, and we presume the Cincinnatians can make the business profitable even at these figures. Mr. M. W. Manning thinks very highly of the true Hudson River Antwerp, as a very productive and valuable market variety. Says that it is the true Antwerp—that all the other varieties under the name of Red Antwerp are spurious—that he has not seen it true to name, but in one instance in the west.
Mr. Connon said that he had grown the true Antwerp in Scotland and believed it the same as we had in cultivation under that name.
Mr. Carew Sanders said that in England the Red Antwerp is one of the finest of raspberries—possessing the most delicious flavor. It does not succeed so well here. He says he does not think we have yet the raspberry for the west. Thinks highly of the American Purple, as being a productive, hardy plant, producing a rather soft berry of very fine flavor. Is quite well pleased with the variety known as Kirtland's Seedling. Berry quite firm, flavor good. Thinks the flavor of the Black Cap enough to condemn it. Brinckle's Orange is productive, but in his soil hard to get a stand of plants.
N. J. Colman thinks highly of Catawissa. It fruited remarkably well in his grounds last year, and promises equally well this. As an autumnal bearing variety he believed it would supercede all others. The Merveille des quatre Saisons and the Belle de Fontenay make a fair show of fruit, but not to be compared with the Catawissa. The Allen raspberry promises well. It is the latest bearing variety he has and is valuable on this account, as it prolongs the raspberry season. Kirtland's Seedling promises well, and is about ten days or two weeks earlier than the Allen. The American Purple and American Yellow are both hardy and productive varieties—the purple rather too soft for market culture, but just the berry for family uses. The Yellow very much resembles the Black in flavor and firmness, and is being quite extensively cultivated in some parts of Missouri in preference to the Black, which frequently blasts, but the Yellow is never thus affected.

Fruits Exhibited.

At the meeting on the second Saturday of June, Mr. Carew Sanders exhibited of raspberries, Kirtland's Seedling, American Purple, American Yellow. Currants, White Dutch, Red Dutch and Cherry. Gooseberries, Houghton Seedling.

FRUIT GROWERS' SOCIETY OF WESTERN NEW YORK.

Mr. Editor:

In accordance with my promise, I give to you herewith the substance of a few brief notes which it was my duty to take at the late meeting of the Fruit Growers' Society of Western New York (June 23d, 1859). If in the transcript from my official pages, I am too dry and tedious, you must throw out the objectionable portions, and only print the sections in which the reporter has not shown himself stupid. C. P. B.

Passing over the details of the organization, we commence after the report of the Committee on Subjects. The discussion commenced upon No. 1: "Are there any benefits to be derived from the practice of ringing, ligatures, girdling, etc., of the Grape vine? and if so, what are they?"
Mr. S. H. Ainsworth, of Bloomfield, said there must be some benefit, because a bunch of grapes exhibited in our rooms last fall was so increased *in size* by "the practice," as to very much excel all the specimens then exhibited.
Mr. W. P. Townsend, of Lockport, said that at the meeting of the State Society at Buffalo last fall, a gentleman from Chautauque County showed some Isabella grapes, which were so attractively large as to cause doubts as to the variety, which were only settled by an appeal to Mr. Charles Downing, who was present. They were fully one-half larger than the usual size. The part of the vine which bore this fruit had accidentally been so injured as to obstruct the return of sap from the leaves to the roots. The balance of the crop was of the usual size and as good as usual.
In some foreign countries this ringing is practised annually, by which the size of the fruit is increased and the time of ripening is from one to two weeks earlier.
Knows a person named Paign, who is in the habit of tying a string around his vines below the fruit for a while each summer, for the purpose of increasing the size and hastening the maturity of the fruit.
Dr. Spence, of Starkey, inquired the effect upon the next year's crop. Where vines are pruned according to the renewal system, there is no necessity for, or benefit in, girdling the branches which are to produce the crop of the next year, and those which bear this year's fruit will be cut off, whether girdled or not.
Wm. B. Smith, of Syracuse, was upon the same Committee at the Buffalo State Fair as Mr. Townsend. The grapes spoken of were enormously large, but his recollection was, that they were not ripe, although nearly twice the size of the other grapes, which were.
L. B. Langworthy, of Greece, said that the girdling of the branches of apple trees, peach trees, etc., hastened ripening, and it ought to do the same with grapes.
S. H. Ainsworth told of Isabella grapes shown at the Ontario County Fair in 1857, which were as large as Black Hamburgs.
Mr. F. B. Peck, who raised them, found that the return flow of the sap had been obstructed by a tendril which in 1856 had closely entwined the branch and had sent the whole force into the fruit. In this instance the fruit was very ripe, and its quality very fine; and it was the only fruit exhibited at that Fair which was really ripe. "In this case, the ligating *did* certainly hasten ripening."
Mr. Hoag, of Lockport, spoke to the same effect.
Mr. Ainsworth now recollected a similar case, where the fruit was two weeks earlier than the rest of the fruit upon the same vine.
J. J. Thomas, of Union Springs, said that, however much the size might be increased, he had his doubts as to whether the quality would be similarly increased.
T. C. Maxwell, of Geneva, thought that immediately after the fruit had set was the proper season to perform the operation. Too large a portion of the bark must not be removed when we practice ringing, otherwise we kill both vine and fruit. We wished to obstruct, but not to totally prevent, the return flow of the sap.—This had long been the habit of an old gardener in Geneva, and always with effect, both as to size and earliness.
Dr. Spence, of Starkey, inquired whether, in view of the fact that this practice produces an abnormal condition, both of the vine and of the fruit, the Society would recommend it as a steady practice.
Mr. Langworthy, of Greece, certainly would not upon trees, because the limb operated upon was usually lost.
Mr. Townsend, of Lockport, spoke again of the peculiar adaptedness of this practice to vines pruned according to the renewal system.
Mr. P. Barry, of Rochester, (who is looked up to by most of the members as always cautious and safe authority,) spoke of the experiments by the French in 1856, of the action of the Horticultural Society of Paris in the premises; stated that the practice was common in the time of the Romans; that it was fully commented upon by Mr. Knight, an English writer; and that Mr. Rivers also mentioned it. Said Mr. Barry, "I am not convinced that it is a practice that is to be recommended for general practice. It does add to the size and hasten the maturity of fruit, while it does not injure its quality; but when practiced upon a part of the plant to the advantage of the fruit upon that part, it does injure the rest of the fruit, and does (by obstructing the return flow of the sap) injure the roots. It can be practised upon the grape vine with more impunity than upon any other plant, because the grape makes new wood so easily. This is an interesting matter, and well worthy of your attention and of your experiments. The teachings of experience are infinitely superior to those of all the theories and theorizers in the world."
Mr. Townsend hoped that members would experiment. Could not quite agree with Mr. Barry as to the injury. In an Isabella vine pruned according to the renewal system, there are in fact two vines taking sap from the roots and giving it an outlet through the leaves, while the only loss to the root (when that which is in fact one of the two vines is ligated) is from the extra developement of fruit above the girdling and the growth of a little more wood.
Mr. Langworthy remarked that if the ligatures were merely around the growth of this year, there was no effect upon the roots. If the main line were girdled, Mr. Barry's idea is correct, because a healthy natural process was obstructed. If there be any good in this practice at all, it would tell most strongly in this latitude upon its application to the Catawba vine. Gentlemen, say we can gain a fortnight, and it will be of real consequence to try it. Take a small annealed wire and twist tightly around the branch, and perhaps we shall see what few of us have ever yet seen, *i.e.*, a ripe Catawba.
Mr. Smith, of Syracuse, joined in urging all the members of the Society to experiment, and to give us their experience at the fall meeting.

Question No. 2 was, "The late frost. What have been its effects upon the Grape, both with reference to the present and next season's crop?"
The effects of the frost have been so fully discussed in the papers, that we shall be very brief in our report.
The Society was addressed by Dr. Spence, Mr. Langworthy, Mr. Fish, Mr. Hoag, Mr. Ainsworth, Mr. B. Hodge, C. P. Bissell, Mr. Ross and others, and all united in reporting, the freeze as very severe; as having been very capricious in its effects, and governed by no rules; in some places killing only the covered vines, in others only those left on the trellises, in others only those carefully laid flat; in some instances desolating the hillsides and avoiding the valleys, while again only the vines in the valleys were killed and the hillsides and tops enjoyed full immunity.
Several gentlemen had noticed that their Rebecca vines, although growing alternately with other sorts, were alone uninjured. No case was mentioned of the Rebecca having been particularly tender, while many instances were stated of its standing side by side with Concord, Clinton, Diana, Isabella, Child's Superb, etc., and alone escaping unscathed. It was suggested that this must be because the Rebecca ripens its wood so rapidly as it grows, that there was very little of the green succulent growth, to be acted upon.
The present crop was very seriously diminished, and the effects upon next year's crop cannot but be injurious. The new wood already grown having been killed, the growth since the frost has been very weak and feeble, with great danger of not ripening thoroughly, of being winter-killed, and of a light crop next year also.

Question No. 3, Which are the best varieties of Strawberries for general profitable cultivation according to present experience? and which the most profitable, and at the same time most economical, mode of cultivation?
Mr. H. N. Langworthy, of Rochester, made some capital introductory observations, impressing it upon us that in a subject as extensive as this we keep clearly in mind the several qualities which are desirable in the plant and in the berry. We want hardy plants which will withstand our winters without requiring extra care or protection. We want berries of good size, of good color, of fine flavor. We want the berries, also, to be hardy, and not affected by the fluctuations of our temperature in the spring. We wish the flesh of the berry to be firm when ripe, so as to bear transportation; and we wish the foot-stalk strong enough to keep up the berries from the earth. There *are* also other qualities held desirable by some and not esteemed by others; but few will object to those already mentioned.
The meeting was addressed by several of the members, and others were questioned upon points where they were known to have had large and valuable experience. The Large Early Scarlet and Wilson's Albany received almost unqualified commendation as market berries, while the Hooker and the Triomphe de Gand seemed equally well spoken of for the garden.
Dr. Sylvester, of Lyons, mentioned a kind of mulching which he had tried last fall and considered valuable. He had covered his beds with clean black muck to the depth of half an inch. The freezing and thawing caused it to become as fine as white sand, and it acted as a most admirable mulch to the plants. It protects from the cold, and certainly is an excellent fertilizer, while it assists in keeping the fruit clean as much as a coat of the purest white sand would do.
Dr. Spence, of Starkey, moved that we drop this subject for the present, and consider that of a singular disease which was affecting his standard Pear trees. He had brought with him a couple of the stumps of his dead trees to verify his statements, and to exhibit to the Society, while he asked the opinion of the members. They were standard Pears, and five years old. In the fall of 1858 the leaves assumed the red hue rather prematurely; had made a good strong growth in 1858. In the spring of 1859 the buds had swelled large and seemed ready to develope, the fruit buds had commenced to unfold, and then all life stopped. The bark of the tree is green until near the ground, but the roots are all dead, and have the appearance of having been dead for a year. Sometimes the bark dies above, and sometimes below, the point where grafted; but wherever the bark is dead the wood seems dead beneath it. Had carefully examined with the microscope, and could find no insect or mark of an insect in the bark. Had lost 250 trees out of 1200 in four or five years. Disease not confined to any particular kind of soil—not confined to Yates County. Never found the bark dead higher than a foot from the ground except in spots, and he showed some of these spots an inch or two in diameter with live green bark all around them.
The discussion was quite full; but the general impression seemed to be that it was a fire blight, caused by too great excess of moisture, and this was strongly borne out by the specimens shown, which had not the tap-roots which are so surely sent down into well drained porous soil by the pear tree. All the roots of these trees seemed to be the laterals, which they were forced by the excess of moisture beneath to send out near the surface. It had been known similarly to affect cherry and other trees.
On motion, C. M. Hooker, of Rochester, Question 3 was resumed, and a ballot was taken as to the best six varieties for market, and the best six to be cultivated in the garden of the amateur.
For Market—*Large Early Scarlet* and *Wilson's Albany* had all the votes; *Hooker* about two-thirds; *Hovey's Seedling*, *Triomphe de Gand* and *Burr's New Pine* about half; while the remainder of the ballots were cast for some favorites of the members, varieties which had done very well under the supervision of the gentlemen.
For the garden of the amateur hardly any were balloted for, except Large Early Scarlet, Hooker, Triomphe de Gand, Hovey's Seedling, Burr's New Pine and Wilson's Albany.
After some further very interesting remarks by various members, mainly in reply to questions,
P. Barry, Esq., recalled with pleasure the remarks made by H. N. Langworthy, Esq. when this subject was first introduced. Let us be sure that we know what we want: what qualities we desire in the plants, and what in the berries; then having purchased our plants of the right kind, let us cultivate them in the proper manner. Let every thing be done according to some system, and the results will astonish those who just go along hap-hazzard, anyhow, and who are consequently always having bad luck with their berries.
These same remarks will apply with exceeding force to all cultivation of trees, plants, vines, fruit and flowers.
The Society adjourned to meet at Rochester at the call of the Council, probably about the last of September.

[We are very much obliged to Mr. Bissell for his excellently condensed, yet comprehensive, report of one of the most interesting meetings we have had the pleasure of recording this season.—Ed.]

Second Monthly Exhibition of the CHICAGO GARDENER'S SOCIETY.

This young Society is attracting attention, if we may judge by the number of people that came to examine into the gardeners' offerings for June. There was certainly room enough for more in the capacious Metropolitan Hall, generously placed at the disposal of the Society gratuitously. Still, those who attended the show of last June—certainly a most creditable exhibition for the West—could but have noticed a marked improvement in the number of visitors of 1859 over that of 1858, especially when it lasted one day only. This is as it should be, and tends to show, with determination on the part of the gardeners themselves to persevere, that the public will surely get interested in what they can do. The whole matter thus far the present season is experimental and gratuitous all around as far as the Society is concerned—that is no premium is offered by them, and nothing charged for the admittance of the public. A few kind friends volunteered, however, to give special premiums for bouquets, designs, etc., which recognition of their efforts the Society thankfully accepted. And we feel sanguine that ere long the good people of Chicago will aid by their efforts in disseminating a knowledge and love for the useful and beautiful, it is the good province of the gardener to deal in.—*Emery's Journal.*

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. SEPTEMBER 1, 1859. VOL. I.—NO. 9.

CALENDAR.

9th Month, September, 1859, 30 Days.

Moon's Phases		Boston.		Philad'a.		Baltimore		Charl't'n	
	d	h m		h m		h m		h m	
First Quarter.	3	11.21 ev.		11.04 eve.		10.58 eve.		10.46 eve	
Full.	12	3.47 mo		3.30 mor		3.24 mor		3.12 mo.	
Last Quarter.	19	5.39 ev.		5.13 eve,		5.07 eve.		4.55 eve	
New.	26	9.12 mo		8.55 mor		8.49 mor		8.37 mo.	
Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	3	5.27	6.33	5.29	6 30	5.31	6.28	5.36	6.22
	12	5.36	6.17	5.37	6.16	5.39	6.15	5.42	6.11
	19	5.43	6.05	5.44	6.04	5.46	6.04	5.46	6.03
	26	5 50	5.52	5.51	5.52	5.53	5.52	5.50	5.53

This Calendar will answer for the sun at any place in the same latitude.

Hints for September.

FLOWER GARDEN & PLEASURE GROUND.

In many parts of the Northern States the leaves will have changed color previous to the incoming of winter, and the planting of trees and shrubs will commence as soon as the first fall showers shall have cooled the atmosphere and moistened the soil. Further south, where the season will still remain "summer" a while longer, the soil may, at any rate, be prepared, that all may be in readiness when the right season does come. Where there is likely to be a great deal of planting done, and only a limited number of hands employed, planting may commence early in the month. What leaves remain on should be stripped off, and the main shoots shortened. They will then do better than if planted very late. In fact, if planting cannot be finished before the beginning of November in the Northern and Middle States, it is better, as a rule, deferred till spring. In those States where little frost occurs, this rule will not apply. The roots of plants grow all winter, and a plant set out in the fall has this advantage over spring-set trees, that its roots in spring are in a position to supply the tree at once with food. This is, indeed, the theory fall planters rely on; but in practice it is found that severe cold dries up the wood, and the frosts draw out the roots, and thus more than counterbalance any advantage from the pushing of new roots. Very small plants are, therefore, best left till spring for their final planting. The larger things, and which we recommend planting in the fall, should be pruned in somewhat at planting. The larger the tree, the greater in proportion should it be cut away.

Attention should be given at this season to the flower-beds, by noting what has done well in your locality as a summer blooming plant, as no time should be lost in procuring a stock for next year.—The best way to propagate all the common kinds of bedding plants is to take a frame or hand-glass and set it on a bed of very sandy soil made in a shady place in the open air. The sand should be fine and sharp, and there is, perhaps, nothing better than river sand for this purpose. The glass may be whitewashed on the inside, so as to afford additional security against injury from the sun's rays. Into this bed of sand cuttings of half-ripened wood of the desirable plants may be set, and after putting in, slightly watered. Even very rare plants often do better this way than when under treatment in a regular propagating-house. In making cuttings, it is best to cut the shoot just under a bud,—they root better, and are not so likely to rot off and decay. A cutting of about three eyes is long enough for most strong-growing things, such as Geraniums, Fuchsias, &c.

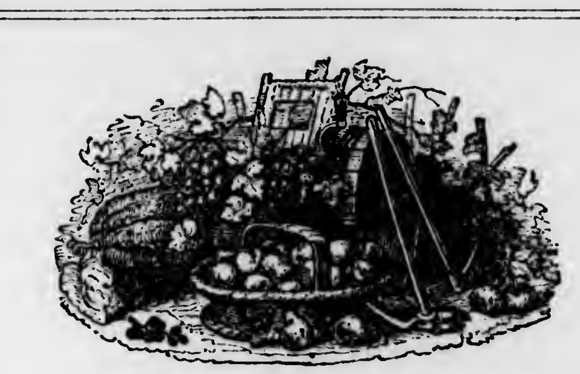
Small-growing things, of course, will take more buds to the one cutting. From one to three inches is, however, long enough for most cuttings. They should be inserted about one-third of their way under the sand, which latter should be pressed firmly against the row of cuttings with a flat piece of board, —not, however, hard enough to force the particles of sand into the young and tender bark, which is often the first step to decay. For a few cuttings, they may be inserted with a dibble; but where many are to be put in, it saves time to mark a line on the sand with a rule or straight edge, and then cut down a face into the sand, say one or two inches deep, when the cuttings can be set against the face like box-edging. All amateurs should practice the art of propagating plants. There is nothing connected with gardening more interesting.

We have said a good deal about ornamental hedges in past numbers; but not, perhaps, as much as the subject deserves. Not only do they make the very best kind of boundary fences, and form in themselves beautiful objects, but they have a great use in small places in breaking off long and uninteresting scenery, and, by dividing perhaps one grand view into innumerable parts, make a small place seem very large indeed.

We have often given the principles of successful hedging, the main ones being to repress excessive growth at the top by repeated summer pruning and training in a conical form, while the side and basal shoots should be suffered to grow as much as they possibly will, without let or hindrance, during the summer season. As soon as the leaves begin to fall, these lowermost shoots should be brought into shape, so as to render the hedge perfect.

Many kinds of bedding plants of succulent or subfleshy growth, can be taken up from the flower-beds on the approach of frost, and cut in, say one-half, and packed thickly in boxes of soil, and kept in a rather dry and cool cellar through the winter. Such fine plants make a much better show in the beds the next year than plants of the present season's striking. A cellar is one of the most useful appendages to a garden. Were we to have only *one* choice, we should prefer a cellar to a greenhouse for its general usefulness.

As soon as Dutch bulbs can be obtained, they should be at once planted. Of all fertilizers, well-rotted cow-manure has been found best for them, and especially if mixed with a portion of fine sand. They should be set about four inches beneath the surface of the ground, and a little sand put about the root when being planted. A very wet soil usually rots the roots, and a dry one detracts from the size of the blooms. A soil in which the generality of garden vegetables do well, is one of the best for these plants.



FRUIT GARDEN.

One of the most interesting employments connected with this department, next to presenting a friend with a fine fruit or eating it yourself, is to gather it. It requires some judgment to do this properly. Most of what we see in market of pears or apples are gathered too soon, while the amateur goes into the opposite extreme of leaving them on too long. The proper time to gather them is when they part easily from the tree on being gently raised up. But fruit-gathering ought to commence very early in the season, namely, as soon as insects have evidently damaged the fruit. An amateur should go over his apples and pears once a week after they reach a respectable size, and take off all the unfortunate specimens, which should be handed to the cook, or sent to market. This process would have a tendency to keep down the number of insects, by destroying their larvæ before they reach their final stage of development. At this season nothing will be left on the tree but perfect fruit. They should, of course, be all carefully gathered by hand, and great care taken to have none of them the least bruised. They should then, if summer fruit, be placed in a cool room, and a cloth thrown over them for a few days, when those who never ate an early apple or pear before so treated may wonder to what species of fruit they belong. Late fruit must, of course, be left on as long as possible, so that frost does not injure them; but all kinds should be occasionally tried by the lifting process we have described, and taken off at the first sign of maturity they afford.

Speaking of insects again reminds us to urge on the fruit-grower the necessity of perpetual war against insects. Schemes for driving them away are of small account. We must have "their blood."—Very much may be done by the employment of wide-mouthed bottles with sweet liquor, as we have before recommended. Mr. Downing, in one of his essays, mentions a friend who, by the use of only molasses and water, caught in one season *three bushels* of insects, and Mr White, in his "Gardening for the South," mentions an individual who, in this way, caught a peck in one night. It is impossible not to believe but that, by a determined perseverence on the part of all fruit-growers, the troublesome attacks of insects would be very much mitigated. Fruit-growers, as a rule, give themselves too much to do, and have time to do nothing right.

VEGETABLE GARDEN.

The main crop of Spinage should now be sown. Properly cooked, there are few vegetables more agreeable to the general taste, and few families who have gardens will wish to be without it. It is essential that it have a very well enriched soil, as good large leaves constitute its perfection as a vegetable. As soon

as the weather becomes severe, a light covering of straw should be thrown over it. A few Radishes may be sown with the Spinage for fall use.

Turnips also may still be sown. In fact, if the soil be rich, a better quality of root for table use will be obtained than if sown earlier.

Celery and Endive will still require the attention in blanching described in former hints.

Cabbage and Cauliflower are sown this month for spring use. The former requires some care, as, if it grow too vigorous before winter, it will all run to seed in the spring. The best plan is to make two sowings—one early in the month, the other at the end. The rule is to get them only just so strong that they may live over the winter in safety. Many preserve them in frames; but they should have wooden sashes or shutters instead of glass, so as not to encourage them to grow much.

Cauliflower, on the other hand, cannot well be too forward. Most persons provide a pit of stone, bricks or wood, sunk five or six feet below the surface of the ground, into which leaves, manure or any waste vegetable matter is filled. When quite full, it is suffered to heat a little, when it will sink somewhat and have more material added to it; about six inches of good rich loam is then placed on it, and early in November the Cauliflower planted out. The object in refilling the leaves so often is to insure the plants remaining as near the glass as possible, which is very essential in the growth of Cauliflower. Lettuce is treated in the same way, and seed should be sown now to prepare for the planting. The Cabbage Lettuce is the kind usually employed.

GREEN AND HOTHOUSE.

In the greenhouse, repairing and thorough cleansing must not be delayed. Painters say this is the most advantageous month to paint wood-work. Whenever the night temperature falls to 40°, any tender plants in pots should be housed, without waiting for "the first week in October." Things nearly hardy, as Azalea, Rhododendron, Oranges, &c., do best out "to the last." Any desirable plant for forcing, that may be growing in the open border, if potted early in the month, will do very well for that purpose.—Weigela rosea does excellently this way; as also does Jasminum nudiflorum, Forsythia viridissima, many Spiræas and Persian lilacs. Roses and other things intended to be forced early, should have as much air and be kept as dry as possible without injury. Hyacinths and other bulbs should also be potted as soon in the month as they are obtained; the former are best planted an inch deep. The earlier bulbs are potted the finer they flower—you may get *Catalogues* of any number of kinds or colors at the *auction marts*. If you get ten per cent. as represented, when they flower, you will be favored. Mignionette, Rhodanthe Manglesii, and similar ornamental annuals essential for winter blooming in well kept houses, should be sown at once. Many things for next season's flowering, must not either be forgotten. The Pansy, Calceolaria and Cineraria, are in this class. Plants of these that have been kept over the summer, will require a re-division, and kept in a close frame a few days afterwards, till they get re-established. Propagation, of all things, will still require constant attention. It should always be an aim to possess one duplicate plant, as a provision against accidents. In many cases, young plants are preferable to old ones; so that the old ones may be destroyed when these are obtained.

In the hothouse, the Æschynanthus will soon be the chief ornament of this division. Their number has increased so that they have become quite a feature. If the pots seem full of roots, they may still have another shift. They prefer very fibrous peat; or, if that cannot be had, turfy loam, mixed with a portion of coarse moss. They will, however, do pretty well in small pots. Achimenes and Gloxinias, as they go out of flower, should be kept dryer and cooler. Look well after a good stock of Pentas, Cestrum and Habrothamnus; they will go far towards keeping up the interest of the department in winter. Justicias and Acanthaceous plants generally will probably require another shift if fine specimens are desired. The atmosphere, if the house be light, can scarcely be too moist for them. Plumbago rosea is one of the most valuable stove plants we know for winter flowering; it requires a strong heat. Clerodendrons, as they go out of flower, should be kept in a very airy situation, and rather dry, preparatory to being cut down and treated like a Pelargonium for another year. Many Begonias will be past their best flowering stage; very little watering serves them; they are very liable to damp off by incaution in this respect. It is difficult to lay down rules for orchideæ, so much depending on the circumstances under which they are grown. Those which have finished their growths—as many Dendrobiums, Oncidiums, Catasetums, &c., whose flowers appear just before new growth—should have their supplies of moisture gradually lessened. The temperature, also, is better gradually lowered a few degrees, and they should be allowed more light than usual. The period when they are about completing their growth is the most critical, as any check at this time spoils the prospect of much blossom for next season. Those which flower from the young growth, as Catleya, Laelia, Broughtonia, &c., will require their moisture and heat rather increased than otherwise till after their flowering. Vandas Angræcums, Saccolabiums, and other strong-rooting ærial kinds, will require constant humidity, until it is evident, from the points of their roots, that they desire to stop growing. We are often asked "how often orchids require to be syringed?" If the situation in which they are growing be favorable,—that is, retains in its atmosphere a regular humidity,—they will require very little attention; in many cases, not requiring the syringe once a week. Where this cannot be effected, the syringe must be oftener applied. As a rule, I think no better one could be offered, than to syringe orchids just so much as will barely keep moss attached to their block and baskets green and growing. The real terrestrial orchids will require no moisture at all after they have completed their growths, until they show signs of pushing again. Care against checks in temperature and humidity, is one of the secrets of successful orchid growing. Those which are at rest do well in a temperature of 60° at the lowest. Those which are growing well should be kept at about 80°.

Communications.

STRAWBERRY BEDS.

BY A. W. H., PHILADELPHIA.

Trench the ground from 2½ to 3 feet, working in one-fourth of a compost of bone-dust and well-rotted manure to three-fourths of soil, and at the bottom of the trench a little hen-manure or guano; charcoal added to the compost, or used as a top-dressing, will be of great advantage. Should the surface or the subsoil prove clayey and tough, it would be well to mix a portion of sand with it while trenching.

Plants for a new bed should be removed carefully, with a ball of earth attached to the roots, or in pots, as below described. Set them out on a damp or cloudy day, or just before a rain, in rows, two feet apart, and one foot asunder in the rows, to be thinned out, after a year, to two feet distance. If you are making a new garden, the best season for transplanting is late in May, or early in June; if renewing from old beds, late in August and early in September; if potted or removed with their own ball of earth, well mulched with cut hay or straw, and *well watered*, they will thrive at *any* season.

In October give a coating two or three inches thick of good stable-manure, and when the plants begin to push in spring, rake it off, fork up the ground carefully, and give a top-dressing of leached ashes, or, what is better, when the fruit-buds are set, hoe in between the rows a mixture of equal parts of wood-ashes and of lime slaked with strong brine, which serves the double purpose of repressing weeds and stimulating the growth of *fruit*. Some cultivators burn off the litter in March with advantage, while others put on straw for the purpose. When the plants are in bloom, water the ground between them once with strong liquid manure, from the *spout* of the watering-pot, lifting the leaves while applying it, and repeat the operation when the fruit commences to set. In dry seasons, irrigate profusely twice a week, using the sprinkler, and thoroughly drench both the plants and the soil. All watering should be done at evening.

As soon as the berries begin to color, mulch the ground between the plants with *chopped* straw, fresh cut hay, or tan-bark. I much prefer the former, which is light, cool, clean and dry, and will serve for stable litter afterwards; while the hay often ferments, and causes a heavy fungus growth, robbing the plant of a portion of its proper nutriment; but it shades the ground *too* much, is less cleanly than straw, and sometimes gives a flavor to the fruit resting upon it.

To obtain berries of extra large size, thin out from one-half to two-thirds of the crop. When the plants are in full fruit, mark with a stake the most prolific ones as parents of your future plantations.

Remove every runner till the fruiting season is past, and then set only as many of the *first* joints on each runner as you need for new plantations, and *no more*, and *suppress all others during the whole season*. Select a damp or cloudy day, rake off the mulch, fork up and nicely rake the entire surface of the soil, and then arrange the runners, as they put forth, at even distances around the parent root, so as to give each the largest space to grow in, and allow of its removal with the largest clod possible. Should any mixture of kinds take place, the fruiting season is the time to mark the intruders for future removal and replacement. If you have small pots convenient, strike your runners in them. After a few days they can be removed, and a second set be potted or rooted in the open ground. In either case, as soon as the first joint of each runner is well set and a secondary shoot puts forth, pinch off the latter, and peg down the young plant with a forked or broken twig in its allotted place. The parent plants for propagation should not be over two years old, and after four or five years, or as soon as they give token of diminished fertility, they should be dug in and followed by other crops.

Do not mix your hermaphrodite and pistillate plants in the same row, but plant them in alternate rows, setting the hermaphrodite always to windward, as sailors say, so that the prevailing winds will carry the fertilizing pollen over to the pistillates. Wilson's Albany Seedling is one of the best fertilizers I know, besides bearing enormous crops of fruit of large average size (I picked one specimen five inches in circumference and over three hundred berries, large and small, from one plant set out in June, 1858) and of a very agreeable, though peculiar and somewhat acid, flavor.

By pursuing this system steadily, you will insure healthy, prolific plants, large, high-flavored fruit, and kinds always true to name. I subjoin a select assorted list for a small garden:

Jenny Lind—Hermaphrodite, early, handsome, prolific, good flavor.

Germantown—Hermaphrodite, productive, bright scarlet, fine flavor, bears a long time.

Hovey—Pistillate, well known kind.

Wilson's Albany—Described above.

Hooker—Hermaphrodite, very productive, handsome and high-flavored.

Peabody—Hermaphrodite, very large, exquisite flavor, productive after second year. (I have counted 325 berries on a plant received of Mr. Peabody in April, 1857.)

To these add, for a further variety, *Viscomtesse Hericaut, Magnum Bonum, Carolina superba, Compte de Flandres, Triomphe de Gand, Princess Royal*, all of the highest quality and moderately productive.

[Our correspondent is one of the most successful amateur strawberry cultivators we know of. Having given especial attention to this fruit for many years, and adding to his favorite hobby superior scientific attainments, he has brought its culture to a high degree of perfection. We regard his article as a valuable contribution to the general knowledge of the subject on which it treats.—Ed.]

THE CULTURE OF THE TOMATO.

BY C. H. MILLER, ROXBORO, PA.

Having been much interested in the communications of your correspondents "Blue Apron" and "Market Gardener," on the Cultivation of the Tomato, I purpose giving the numerous readers of the *Monthly* the benefit of my experience.

Last season I had a few extra early plants that had become too large before planting season, and the tops coming in contact with the glass, got injured by frost or otherwise. The consequence was, I had to pinch them back. They soon, however, put out side-shoots, became fine, bushy, healthy plants.

My second sowing, some two weeks later, was now coming on fast, and the planting season at hand. The ground was well prepared, and the plants all put out the same day; but, instead of having early fruit on my early plants, I gathered first and much the finest from my second lot, some two weeks later than I expected. This of course decided me against the topping system.

This season I adopted the plan of frequently transplanting those that were too forward, thus checking their rapid growth, and producing quantities of fibrous roots, a very advantageous result at their final removal. I planted about half an acre this season, and the result was very satisfactory; in fact, they are the best lot of Tomatoes I have seen this season.

I have no doubt but the pinching-back system would answer very well, providing the lateral branches were judiciously thinned when too thick and weakly.

Yours respectfully, C. H. Miller.

HISTORY OF THE PETUNIA.

BY AN OLD FLORIST, PHILADELPHIA.

Mr. Editor:

In taking a cursory view of my flower-garden, it seems to me that its beauties are all of very recent date. Phlox Drummondii, Manettia, Portulaca, Nierembergia, Thunbergia, Imperial Pinks, Verbena and the Petunia have all been brought out in your own day.

The Petunia with me has always been a blooming favorite,—always shining from May till December. Its delightful and peculiar clove-scent in the evening, its great variety of color, its easy propagation, its adaptability for all situations, rough or fine, high or low, rich or poor, all endear it to me. On this continent it is the "flower of the day." Now for a small page of its history.

The *Nicotiana nyctaginiflora* (White Petunia) was sent to Europe from South America in or about 1822. The late Robert Sweet, the best cultivator of his day, wrote a description of the plant and its culture at his residence in Chelsea, London, where he expatiated on his plant of seven feet growth, trained on a wall, and bloomed eight months of the year. Mr. Otto, of Berlin, wrote a history of its culture in 1827. It formed a prominent feature at all flower shows; every visitor admired the Lady in White. Botanists took hold of it, and changed it from *Tobacco* to Petunia, which name it has retained, and will retain, till flowers shall bloom no more. But the *White*, so tame and cold in color, did not suit. Mr. Tweedie, of South America, sent seeds of a plant to Dr. Neill, the veteran horticulturist of Edinburgh, in or about 1830, which produced flowers the following year of a brilliant purple color, and was called *Nierembergia phœnicea*, but botanized to *Petunia phœnicea*. This subject, with the White Petunia, laid the foundation on which the whole diversity of structure of the Petunia has grown. I do not think I can decide who was the first hybridizer to operate upon those two subjects,—whether it was first done in the city of your adoption, or in the flower-gardens of "Old England." I believe the first English hybrid was made by Mr. Willmore in 1833 or '34, and the American hybrid appeared in the same year, and produced varieties of a lilac color, which was a boon to the poor Philadelphia florist, and made a very valuable market plant. From that period till now, the progress has been onward in every variety of color; the Germans having even impregnated it with the green edge to the flower. This very peculiar feature appears to be, however, at the cost of the foliage; for those green-edged varieties have always a very pale foliage, even to a sickly hue. They have not added much to the beauty of the plant. Striped flowers have been introduced for several years; but they are very inconstant in character, sporting back to selfs; and you may frequently see striped flowers, white flowers and purple flowers, all on the same plant. Of very late years we have a double white sort, called *imperialis*. A double Petunia was, till recently, a new idea; now, in 1859, there are many double kinds, and of several colors, but I must say that there are more names than varieties. I have just returned from a visit to a bed of those new sorts in one of our fashionable nurseries, and from about twelve names I cannot distinguish six distinct kinds; but such flowers! nearly as large as Dahlias. I measured three double sorts, each with flowers three inches in diameter. This extra size, however, detracts from the profusion, and for actual show, (and we all go for it,) the single flowers and the small double sorts are to be preferred.

I cannot forget to relate a hint that I got a few years ago from a bright-eyed Philadelphia seedsman, how to show off for 20 cents. "Just go to my store and buy two papers of our best Petunia seed. Sow each paper in separate 5 or 10 feet beds. When they bloom, pull all the white blossoms from the one, and all the purple blossoms from the other, and you will have two elegant flowering beds for one season."—Thus you see this plant is for the million.

[Another valuable contribution to our horticultural history, for which all our readers will offer their best thanks to its esteemed author.—Ed.]

ALBANY SEEDLING STRAWBERRY.

BY J. SLOAN, ALBANY, N. Y.

[Having occasion to write to Mr. Sloan previously to the receipt of Mr. Wilson's letter, given in our last, we hinted that some of the particulars of the history of the Albany Seedling would, we thought, interest many of our readers. Though Mr. Wilson has previously occupied the ground, the additional particulars furnished by Mr. Sloan will be read with much interest by those who are not already acquainted with the facts.—Ed.]

In 851 the late Mr. James Wilson, nurseryman, Albany, N. Y., raised several seedling strawberries from the fruit of the Ross Phœnix, Hovey Seedling and Black Prince. One plant only gave promise of being worthy of cultivation, and in 1853 Mr. Wilson exhibited the first plants in fruit at the Albany Horticultural Society Show. I think they did not at that time attract much attention. He also exhibited the same variety in pots at the Society Show in 1854, and the quantity and size of the fruit on the plants at that time was astonishing to all, and attracted a large share of attention from those attending it.—Eight of the most intelligent and respectable fruit cultivators around Albany, who were at one time assembled around the stand on which the plants were exhibited, were unanimous in their opinion that, in size and productiveness, firm flesh and good flavor, it would surpass any other variety they knew of as a market strawberry.

In the spring of 1855, at the request of Mr. Wilson to test its value as a market strawberry, I received from him three hundred plants. His whole stock at that time probably did not exceed three or four thousand plants. The plants I received bore a good crop the first season; the next year they surpassed every other variety I had in cultivation. They produced with me at the rate of thirty-five bushels more fruit per acre than either the Early Scarlet or Crimson Cone, and it continues to ripen fruit eight days longer than any other variety I know of. Mr. Richardson, who received his stock of Wilson Seedling from me in 1856, says that he has pulled fruit from his plantation this season that measured over six inches in circumference. From my own plantation, in one day, June 26th, seven women pulled, from less than one-fourth of an acre, eleven and one-half bushels of fine fruit, one hundred and twenty-one quarts of which were sent to the salesmen in Albany by eight o'clock in the morning. One fruit stock had on sixteen berries—eight ripe, and eight unripe; four of the berries measured four and three-fourths inches around.

An idea of how the Albany multiplies by runners may be drawn from the fact that from the 300 plants I received in 1855, there must have been produced at least five hundred thousand plants, and so great was the demand for them last fall and spring, that there must have been nearly six hundred thousand plants sold around Albany alone. Thanks to your paper, which proves one of the best mediums for advertising.

Yours truly, John Sloan.

E. Corning, Jr.'s Nursery, Albany, N. Y.

Blackberry Wine.—Express the juice through a thick cloth to prevent any pulps mixing with it. To one quart of juice, add two quarts of soft water, (cold) and three pounds of clean brown sugar, (clarified is best.) Let it then stand in a wide mouthed vessel, until fermentation ceases, which will be sometimes after two months. Be careful while fermentation is going on to keep the film skimmed clear from the top of the liquid, daily, and to keep the vessel full to the top. A small vessel of the liquid should be kept for filling up the large vessels as the skimmings are removed. When fermentation ceases, strain the wine into bottles. The wine keeps better in large quantities, and to that end put into large stone jugs, corking and sealing them.—*N. W. Prairie Farmer.*

THATCHING AND RUSTIC ADORNMENTS.

BY J. M. SMITH, OSKALOOSA, IOWA.

Mr. Meehan:

I promised, last winter, to send you an article occasionally, treating upon matters connected with horticulture, and now I attempt to redeem my promise.

We are *very* young here in horticultural science, but when our heads are as old as the pioneers of the older States, we shall not be *very* far behind them in all the arts and sciences. We have the germ of intelligence vegetating in a rich, virgin soil, and ere long, a stem will shoot forth with branches strong and long enough to reach even beyond our own State. Our "waste places" are already beginning to "blossom as the rose." Taste for the beautiful in nature is already scattering abroad over our lovely prairies, her gems; and, like our growth in population, though but "about the size of a man's hand," it will soon spread over the whole face of the country.

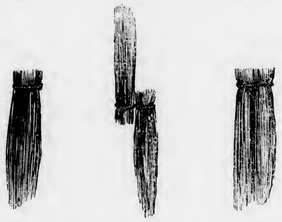
Previous to my coming to this State, I followed for many years the business of nurseryman, and any thing relating to the propagation and growth of plants interested me above every thing else in the arts.

I have been *amateurly* propagating various plants for myself and friends since coming to this place, and have always been rewarded by success. Among other operations, I have raised several fine seedling Dahlias, which in *some* hands would have "paid." I have now quite a number of this year's seedlings, which I am watching with great interest. I have also some *very* fine seedling Verbenas, some of which far surpass many of last year's fifty cent plants.—Also several other little "niceties," such as Cinerarias, Passifloras, Delphiniums, Fuchsias, Geraniums, Petunias, Linum rubrums, &c., from seed, which are pronounced *very fine*. Many, in fact most, persons here have very little knowledge of propagating flowering plants and growing of rare seeds, but I have never had any difficulty in either. Cuttings seldom fail with me. I have rooted cuttings which had been in the mail-bags near two weeks, with success, which appeared almost perfectly dry and dead.

In an early number of your (*our*) *Monthly* there appeared an article on "Thatching," which was very good; but I have thatched considerably on another plan, which I like better. I have used rye-straw and also what we call here "slough grass." This latter material is very abundant in low prairie lands, and forms a cheap, substantial and durable roof for out-buildings, and as timber is scarce, is found to be quite an "item" in economy.

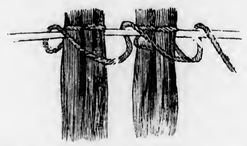
In thatching, I nail or spike slats or laths to the rafters about one foot apart, allowing the thatch to be about three feet long from the band, more or less, according to the length of the straw. I then prepare the thatch by binding the thatching material (the band near the butt) rather loosely in bundles about six inches in diameter, and then dividing it in the middle with the hands, twisting the band, bringing one-half clear over, (see figs. 1, 2 and 3,) so as to

Fig. 1. *Fig.* 2. *Fig.* 3.



form two bundles bound together with one band.—This plan binds the thatch so tightly, that there is no danger of its drawing out, and also makes it of a flat shape, so as to *lay* better. In putting it on, lay the thatch on the lath, butt end up, so that the band comes just above the lath or slat, and taking enough straw on one side, say the left, for a convenient band, twist it, bring it down under and around the lath, and then over the thatch, drawing it tight, and adding from the right side another portion of straw, twisting as before, to make a continuous band; bring it under the lath and over the thatch, as before, and still adding from each side a portion of the bundle, (see fig. 4,) and thus continue until the course is ended.—

Fig. 4.



There fasten the band as in binding grain. The first course turn *butt downwards*, to make the eave. For the ridge,—having a lath spiked on top,—separate the thatch in the middle and stride it across, and with a continuous band bind it fast, taking care to keep it compact as you proceed. Finish by raking well and cutting off the ends at the eave.

I have been somewhat prolix in my description, and the figures are drawn so as to give the *manner* of making and putting on the thatch, and not the work after it is done.

Fig. 5.

Fig. 6.

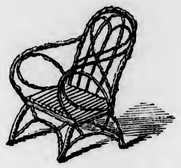
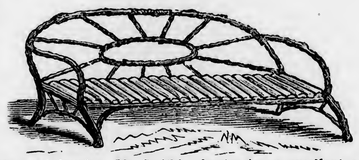


Fig. 7.



I send you, also, some *Rustic sketches* of some rustic work. Fig. 5 is a Rustic Arbor, or Summer-house; fig. 6 a Rustic Chair; fig. 7 a Rustic Sofa.

The materials for the above constructions may be knotty saplings or branches of almost any kind of wood for the main parts of the frames, and willow or hickory poles for filling up, arches, &c.

Of the arbor I have only shown one side or elevation, supposing it to be octagonal.

All rustic work should be well oiled once a year to make it durable.

But I tire you with my loose jottings, and will add no more at this time.

Truly yours,

JOHN M. SMITH.

Oskaloosa, Iowa, July 8th, 1859.

[THE subject of Rustic Adornments is capable of almost infinite variations, and by the many communications in relation thereto, our readers are evidently much interested therein. Mr. Smith's chapter is an excellent continuation of the subject, and we hope to hear from him often.—ED.]

WINTER PROTECTION FOR TREES.

BY W. C. STRONG, BRIGHTON, MASS.

IN the cold latitude of New England this subject is becoming increasingly important. Whether because our forests are cleared, and the open country gives more sweep to the wind, or our winters are colder, or a richer cultivation is in practice, and vegetation is more rank and succulent, or because more artificial and delicate varieties of fruit are in vogue,—whether from one or all of these causes, certain it is, that the proportion of failures from the effects of winter is discouragingly on the increase. A knowledge of the cause is a step towards a cure. Doubtless these causes vary in differing cases; but it would seem reasonable to expect that careful observation would teach us wherein lies our greatest danger.—The past winter is specially worthy of note, both from its peculiarity, and the severity of its effects. In this region it is the universal experience that evergreens, vines, fruit trees, and even most hardy ornamental trees, passed through a scathing trial. In the early part of December the winter closed in suddenly and with considerable serenity, and a cause is found in this fact by many. But in December the sap of trees is most thoroughly absorbed, and consequently the trees are in the best possible condition to endure cold. Unless an unusually warm November should cause a flow of sap, it would seem as though December and January were the seasons of greatest endurance. Excepting the rather unusual cold term in December, which was yet by no means as cold as many nights in January, the winter of 1858–9 was apparently favorable, and only moderately cold. A careful examination of evergreens on the 1st of March convinced me that they had passed the winter with unusual vigor. I am strongly inclined to think this was also true of all deciduous trees. After a mild March and indications of an early spring, on the 3d of April and for four successive days, raged a fierce, dry, cold north-west wind. The cold was not intense, but sufficient to freeze the ground and prevent ploughing, which is not unusual at that season. But the wind was intensely trying, harsh and dry, far worse to endure than the coldest zero weather. Why should it not be as true for plants as of animals?—Why should not the wind that dries and chaps and cracks the skin, also cause excessive evaporation of plants, suck out their juices and leave them in all stages of exhaustion? The effects of the April wind were very apparent. Trees that were protected by a hedge, were uninjured to the top of the hedge; but where they ventured above the hedge-line, their tops were cut off as with a knife. The outside north-west ranks of nursery trees stood the brunt and suffered like the front ranks of a phalanx. Wherever trees have had the shelter of other trees, or of a favorable position, they have come out the past spring with great vigor; but in exposed places, even the Rock Maple has been greatly weakened, and many branches killed outright. While it is doubtless true that trees are oftentimes killed by the intensity of cold alone, yet reason and facts seem also to indicate that the harsh, dry winds, that are so trying to animal life, are equally injurious to vegetable life, and are much more commonly the cause of "winter-killing" than simple intense cold.

If this view is correct, it is very satisfactory to the horticulturist; for the cause, on its face, suggests a remedy. Sheltered positions can be found, or shelter can be created. Hardy evergreens seem to be most perfectly adapted for this purpose, and I would name the Austrian and Scotch Pines as most perfect of all.

Their power of endurance is beyond any other evergreen with which I am acquainted, and their rugged foliage forms an admirable break to the wind. But while simple shelter is ordinarily quite sufficient for most kinds of fruit trees, or is at least all that can be practicably given, there are other kinds that well repay for ample protection. I confess to some surprise that so much is made of the extreme hardiness of this or that variety of the Grape, for instance. We hear an introducer claim, that though his "variety may not be 'best,' yet it is remarkably hardy." Not long since, a friend and distinguished cultivator of the Grape was pointing out to me the mortality, among some varieties, from the effects of cold. I asked him why he did not protect them. He replied, that unless a variety could look into the very teeth of a nor' wester, and stand the brunt of all weather, it should have immediate leave to retire from the list. Now, I shall express my opinion with the same boldness and say that, by this rule, he must disband his whole army, (for he is trying them all.)

The truth is, we have no *perfectly* hardy table grapes for New England. Doubtless they may break at the proper time, and with tolerable strength in most instances; but at best they are like what we call *hardy* perpetual roses. They are hardy; but every cultivator knows how much more vigorously they break and flower if they have winter protection. Am I asked if I would protect the Concord or Hartford? Certainly, by all means; lay them down like raspberries. No other labor will yield such proportionate reward. And it seems to me to be of minor importance that the Rebecca is scarcely able to endure open exposure. Compared with the ample returns in vigor and abundance of fruit, it is so simple and easy to cover vines with earth, as raspberries, that I should suppose the practice would be adopted by all vine-yardists. Even the Peach may repay for this treatment in Massachusetts. This year's crop is a total failure. In the spring a premium was offered for a dozen peach blooms from any one orchard; yet I know an instance where branches were covered with earth during winter, and they are now loaded with fruit.

In conclusion, beyond the absolutely "killed," is not the *weakening* process of winter exposure a more important evil than we are accustomed to regard it? and are not judicious expenditures for shelter and protection of prime importance to the horticulturist?

W. C. STRONG.

BRIGHTON, August 3rd, 1859.

[WE have taken several occasions to impress on our readers' attention the necessity of protecting trees from drying winds. The writer has even gone so far, in another place, as to suggest that the injury hardy trees often experience in severe winters is more frequently through the *drying* they receive, than from the mechanical action of the frost. Mr. Strong's excellent article conveys so many valuable suggestions in relation to this and other matters, that it is quite unnecessary for us to say that we commend it to our readers' careful perusal.—ED.]

FRUIT, &C., IN OHIO.

BY H. N. GILLETT, QUAKER BOTTOM NURSERIES.

Dear Sir:

I HAVE been spending a few days very profitably and agreeably with my old friends in and about Cincinnati, and among other matters pertaining to pomology, &c., discussed the merits of the *Gardener's Monthly*, and the unanimous conclusion was, that it is the best work of the kind published in the country, and the only wonder was, how it could possibly be offered at so low a price.

Fruits scarce, and of very inferior quality about Cincinnati. A little better here, but nothing like a full crop. Peaches very wormy. Apples variable; in some localities, fair, in others scrubby, and some varieties produce full crops of fine fruit, where others are worthless. There remains more to be learned than has yet been learned in regard to the most profitable sorts for orchard culture. Very many sorts of high repute are unworthy of a place in an orchard for market purposes, in our climate.

A NEW USE FOR OLD TREES.

BY J. E. MITCHELL, CHESTNUT HILL, PA.

WISHING, if possible, to prolong the lives of a couple of old apple trees, I put them through a course of scraping, washing, &c.; and however much this process may benefit younger trees, it proved to be too much for these old fellows, for they both died, the victims of theory. Not wishing to disturb the sod by moving them, I decided to convert them into rustic ornaments.

The four branches of one of them happening to spread equi-distant from the crotch, I caused them to be sawed off, leaving them about six feet in length. The spaces between were then filled with branches, forming a very pretty rustic vase, looking like fig. 1.

Fig. 1.

The other tree being more irregular in form, was sawed off close to the crotch, forming a pedestal for three octagon boxes, set one on the other, and surmounted with a flower-pot. (See fig. 2.)

Fig. 2.

They were filled with earth and flowering plants, such as Petunias, Nasturtions, &c., and form very picturesque objects.

Yours respectfully, J. E. M.

CANVAS SHADES FOR SUMMER.

BY C.

IN your April number you have an article on Glazed Muslin as a covering for plants. Years ago I tried it in England, but it would not stand, and in about two months the muslin got so tender, it tore all to ribbons on the least touch or blast of wind. I used exactly your recipe. When first laid on, it bleached white, and the light on the plants was perfect, and they throve amazingly. All kinds of plants, Fuchsias, Geraniums, &c., and even stove in summer, were much benefited by its shade. After a while it turned yellow and dingy, became tender, and fell to pieces. I remember we all thought it an acquisition; and so it would have been if it would remain sound. The best lot of Clianthus puniceus I ever raised and flowered was under one of those shaded frames, in 6-inch pots, covered with bloom in August, and free from spider, their dreadful pest. They sold readily at 2*s.* 6*d.* each. I have not seen this plant here since I came. Why not? There is a new kind which is said to be superior. I think the acetate of lead in your varnish must be the cause of decay when it is acted on by the sun's heat. Some chemical action must be produced, as in the case of linens, &c. When chemically bleached with boiled linseed-oil, it would make a good shade, and would not rot; but it is too opaque, and the light will not go through it. I think I can deprive your varnish of the acetate of lead after it has had its action on the oil and made it into a varnish; and that the pure oil will dry in a day or two and cause no decay, no doubt it would be a great acquisition as a summer shade for many plants if it could be kept on. I will try the result some day, and send you a little of the varnish to try on a frame. In England, at Chatsworth, they use awnings all round the walls, under which the plants are stowed away. They are plain sail-cloth, put up in summer as our street awnings are, and flowering plants are ranged under them on stages or benches, and you walk along sheltered from sun and weather. They are open in front, and sufficiently high to walk under comfortably.

Would not such structures do well here, and afford much pleasure? It would supply a summer greenhouse, and only plants in flower or growing ornamental ones could be set out. The cost would be light. Strong sheeting, half-bleached, would give an agreeable light, would be cheap, and last a couple of years with care. We want such a thing badly. Try a few feet yourself, or get some one to try it. It may make a revolution that would affect trade, and plants would then sell for those places, and nurserymen would prepare them for such erections. Ladies might work and amuse themselves even on the hottest day. It only wants some one to try it. No varnish or any thing than plain white sail-cloth, or the cheaper half-bleached wide sheeting muslin, stretched tight and at an angle of 40° or 45°. There would be no more drip than in a greenhouse; and when rain did come, an agreeable moisture would be diffused around.

BUDDING KNIVES.

BY A VIRGINIA SUBSCRIBER.

Thomas Meehan, Esq:

DEAR SIR—I think you will at least give me credit for candor when I say that I scarcely expected you would be able to maintain the interest the few first numbers of your *Monthly* excited. Not but that I felt it would continue to be interesting and well worth its price, but because it was hard to see how so many new ideas and improvements could be continually brought up that we had never heard of before. But I am pleased to acknowledge that I am still getting hints of great value from your journal, and I think it but right for your encouragement for me to say so. In your last number particularly, you stated that where a regular budding-knife could not be obtained, a quill flattened would make a good substitute for raising the bark. Having but two budding-knives, and some 20,000 peaches to bud, it occurred to me, that by fixing up two or three penknives this way, I

might get a couple of our smartest negroes to lend a hand at the business, and so get through the job quicker. Now, I do not consider myself slow at budding, as, with a good boy to tie, I can put in twelve hundred a day comfortably; but with only two days practice, I found the negroes equalling me with their quills. On experimenting myself afterwards, I found that by the use of the quill instead of the knife, I could put in fourteen hundred a day, being a gain of two hundred over the regular budding-knife.

I am now prepared to go farther than you are.—You recommend it where budding-knives cannot be had; I recommend it instead of them, as something better. However, I did not write to quarrel with you, by any means. I am only thankful for the hint I have got. My main object in writing is to suggest whether some contrivance of a quill fashion might not be adapted to run in the bud at the same time the bark is lifted. The idea struck me, and I have been tinkering a little that way without satisfying myself; but as I should never have thought of the quill, I am not without hope that you, who seem to have more brains than I have, might succeed, nevertheless, and I have made bold to present the suggestion.

Respectfully yours,
A Virginia Subscriber.

[Our "Subscriber" is in error in his belief that he is indebted to "our brains" for the idea of the quill handle budding-blade. It is not uncommon with the Delaware fruit budders, and we are surprised that it is not more generally known. It is another evidence that things which seem well known, or very simple to us, are often of great interest to others, and we hope our readers will take the hint. As we are ignorant where the "brains" lie that first thought of the quill, we can, we fear, render our correspondent's suggestion about further improvement no aid. Should this meet the eye of our friend "Brains," we hope he will lend us his assistance.—Ed.]

NEW METHOD OF HEATING PLANT HOUSES.

BY M. FRYER.

Brandywine, Wilmington, Del., July 19, 1859.

Mr. Editor:

Many of your readers are not aware that graperies, pineries, peach-houses, conservatories, etc., can be forced by limestone, where such can be procured, much cheaper than by any other process. A small kiln pot, containing about eight barrels of lime, erected in a shed in the rear of the vinery, would be sufficient to force a house of 12 lights. A conservatory could be heated if attached to the latter, and a large peach-house in front of the vinery, beyond the border, by means of a flue running under ground into the latter, parallel with the lime-kiln. It is to be understood that the flues must be made of tiles in order to keep up a humid atmosphere when necessary, which is the most essential thing to be considered in forcing. All can be heated from the kiln together or separate as required. The stone could be broken in the shed in snowy or rainy weather. The cost of burning would be trifling. The lime will be found useful for building or farm purposes; otherwise it might be sold to pay expenses.

I shall have more to say on the subject in your next number, should you think the present hints worth noticing in your valuable periodical.

Michael Fryer.

[We shall be very much obliged by further particulars.—Ed.]

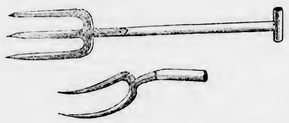
DRAG-HOES AND SPADE-FORKS.

BY L. B., GERMANTOWN, PA.

Sir:—The tool announced in the last number of the *Gardener's Monthly*, called a drag-hoe, if adopted into general use, will be of incalculable benefit; for where used as often as needed, there will be no need of weeding, as it will prevent their rising where the ground is properly pulverized. At sowing the seeds, the drag-hoe passed between the rows of the plants, by admitting light, air and dew, will promote their growth very much.

Some years since, observing that notwithstanding frequent hoeings, the ground could not be kept clear of weeds, I got an old dung-fork, made into a hoe, with a long handle, and drawing it at a walking pace, without the least labor, though it penetrated the ground six inches or more without tossing it, the tines being slender and bevelled on the drawing side, no weed grew where the tool was used.

When Tull improved husbandry by bringing the hoe into use, possibly the edge-hoe was then adopted; but at the present day far superior tools are used,—the cultivator, prong hoes, &c.,—so that solid edge hoes and scufflers are very little used. A small three flat tined prong, about six inches long in the tines and six inches broad, with a T handle, is very useful to stir the borders and small crops, by holding one side of the handle and giving a slight twist, the earth is stirred without effort or fatigue. Also a small hand weeding fork, the tines about the thickness of a hay-fork, and three inches apart, is a very useful tool for thinning out crops.



Could you persuade the readers of the *Monthly* that weeds left to grow among crops is not consistent with economy of good culture, for they rob the manure and fertilizers intended for the vegetables, and when left to seed, each weed produces its thousands, creating endless labor and incalculable loss; so that slovenly cultivators are the least remunerated.

The societies for promoting and encouraging agriculture and horticulture have conferred an immense benefit on society, and if they established prizes for the best cultivated gardens and farms, and visitors reporting, would also promote a superior culture.

It is very pleasant to contemplate a fine lawn, mown very close and even, and nice clean walks and drives free from weeds; but every part of the establishment should be in corresponding good order.

L. B.

[We are pleased that so much attention is being given to improved tools and labor-saving implements of horticulture. As to what our correspondent says about weeds, there is no surer way of getting too intimate with the sheriff, than to be on good terms with them.

At a recent visit to Wm. W. Reid's, at Elizabethtown, N. J., during the temporary absence of that gentleman, we took the liberty of "hunting out" his waste corner to see what he "did with his weeds;" but not finding any such spot, ventured to inquire.

"Why," says he, "the fact is, I can't afford to let weeds grow. They charge for their keep, and being no use to me, I don't let them exist. Most people commence to hoe after they appear; I prefer to keep them from growing."

And it is precisely so. The difference between hoeing before or after weeds grow is slight, so far as the labor is concerned; but it has a great influence on the balance in the ledger.—Ed.]

Tomatoes a la Mode.—Somebody says that a capital dish may be made of tomatoes—some-thing really delicious—and here is the recipe: Take good ripe tomatoes, cut them in slices and sprinkle over them finely pulverized white sugar; then add claret wine sufficient to cover them. They are sometimes prepared in this way with diluted vinegar, but the claret imparts to them a richer and more pleasant flavor, more nearly resembling the strawberry than any-thing else.

New and Rare Fruits.

New English Apple, Claude.—At the meeting of the British Pomological Society, this kind attracted much attention. The report says it is an apple not heretofore described, but worthy of being more extensively cultivated. Fruit oblate: generally irregular in form; greatest diameter, from apex to base, 2½ inches; transversely, 3 inches; eye smooth, clean and wax-like; stalk deeply inserted, medium length and thickness; color greenish-yellow, irregularly scattered over with minute specks of russet, rosy scarlet on sunny side, and semi-transparent; flesh firm and juicy; flavor rich and sugary. It was reported, also, to remain good till May.

The Barbarossa Grape.—This long-keeping variety of the vine is, as is well known, a very rampant grower; and in too many places it has proved a shy bearer. I saw a method of cultivating it practised by Mr. Mitchell, gardener to Lord Wenlock, at Escrick Park, near York, by which this shyness of producing fruit was entirely overcome. He first grew the vines in large pots till they were so strong as to warrant an expectation that they would bear some bunches of fruit. They were then pruned back to six or seven feet long, and placed upon a border of rich earth inside the house. The roots found their way through the holes at the bottom of the pots, and swelled off several bunches of fine fruit. There they were allowed to remain, and had the proper treatment of heat, rest, and pruning, and never failed to produce plenty of fruit. I saw them last month, and a finer crop I never saw on any sort of vine. They had been so placed four years. The bunches were large, the berries well swelled, and as black as jet. Now, the rationale of this practice seems to me to be confining the roots, and thereby inducing a more moderate growth. The house was principally filled with this variety, and I understood, was kept a few degrees higher in temperature than would suit the *Black Hamburgh*. In fact, such as is necessary in order to bring to perfection the *Muscat of Alexandria Grape*. At the same place, I saw a good crop of a Black Grape, known by the name of *Lady Downe's*. Like the *Barbarossa*, it is a long-keeping grape, but the bunches are not large. That objection, however, is obviated by its exceedingly free-bearing quality. I have seen it in other places equally productive. The flavor is peculiar, but pleasant: I consider it much superior to the *West's St. Peter's*, as a late grape, and very suitable for a small garden. At Escrick, also, there are some rafters covered with *Pope's Hamburgh Grape*, a sort little known, but well worthy of a more extended cultivation. The berries are more oval-shaped than the common *Hamburgh*, the bunches larger, the skin as delicate, and the berries are more juicy and of a better flavor.—*Cottage Gardener.*

Lady Down's Seedling Grape.—Bunches shouldered, eight to ten inches long, and rather loose. Berries above the medium size, ten-twelfths of an inch long and nine-twelfths wide; oval. Skin rather thick, tough, and membraneous, reddish-purple at first, but becoming quite black when fully colored, and covered with a delicate bloom. Flesh dull opaline white, firm, sweet, and richly flavored, with a faint trace of Muscat flavor, but not so much as to include it in among Muscats. Seeds generally in pairs.

This is a very valuable grape, and may be ripened with the heat of an ordinary vinery. It forces well, and will hang till the month of March without shrivelling or discoloration of either berries or stalks. The vine is a vigorous grower and an abundant bearer, seldom producing less than three bunches on each shoot. I have seen bunches of this grape ripened in August, hang till March, and preserve all their freshness even at that late season, when the berries were plump and delicious.—*Cottage Gardener.*

Golden Hamburg Grape.—We have before noticed this grape in our columns. We now give its synonyms and description:

"*Golden Hamburgh (Busby's Golden Hamburgh; Stockwood Park Golden Hamburgh).*—Bunches large, loose, branching, and shouldered. Berries large and oval. Skin thin, of a pale yellow color; but when highly ripened, pale amber. Flesh tender and melting, very juicy, rich, sugary, and vinous. An excellent grape. Ripens in a cool vinery, and forces well."

New or Rare Plants.

Dillwynia peduncularis. *Bentham.* Native of New Holland.—A greenhouse evergreen, of rather prostrate habit. Branches very slender, drooping. Standard spreading, with a very deeply-lobed apex, scarlet, tinged with orange. Wings very short, ligulate, scarlet. Keel very short, also scarlet.

This is not so common as some other species, but with brighter colored flowers, and more troublesome habit, and consequently requiring more expenditure of time in forming handsome specimens. With the exception of greater attention to tying out and stopping, the conditions of culture recommended for *D. floribundu* are applicable, with the same success, to this species. It is sometimes seen with the garden name *D. cinnabarina.—Cottage Gardener.*

Coleonema pulchrum. *Hooker.* Nat. ord., *Rutaceæ.* Native of the Cape of Good Hope.—A greenhouse evergreen shrub of admirable habit. Flowers axillary, terminal and solitary. Petals five, oblong, bright rose.

A very beautiful plant of comparatively easy management. Sandy peat about two parts and light fibrous loam one part, with plenty of sand, and a few small pieces of charcoal well mixed with the soil, are a very suitable compost for this plant. It blooms most profusely in May, and ought to have a place in every choice collection of ornamental greenhouse plants. Cuttings in the usual way for greenhouse plants.—*Cottage Gardener.*

Dillwynia floribunda. *Smith.* Nat. ord., *Leguminosæ.* Native of New Holland.—Greenhouse evergreen, with shrubby, erect habit.

A very excellent greenhouse plant, well-known in gardens under the name of *D. splendens.* The habit being naturally fine, and being also a profuse bloomer, it is a favorite exhibition plant, and is often seen at our metropolitan exhibitions in good collections of greenhouse plants. Sandy peat, with a small portion of light loam, and a good allowance of silver sand, are a compost in which it will thrive well. Cuttings of the partially-matured shoots should, in early spring, be put in very sandy peat, and plunged in a very mild hotbed under a glass. It blooms in April, May and June, and ripens seeds plentifully.—*Cottage Gardener.*

Begonia xanthina Lazula.—Introduced by Mr. Linden, from Assam, in the East Indies. Of very great beauty, both in respect of flower and foliage; the latter remarkable for its great size and metallic lustre, and exhibiting, in these leaves, a considerable variety both in the nature and disposition of the spots. To this group belong the *Begonia rex*, the *Begonia amabilis, argentea*, and *Victoria*, of Linden, and *B. Lazuli* of the same author; all these belong to one and the same group, of which our *B. xanthina* (Bot. Mag. t. 4683) from Bhotan may be considered the type, if it be not, as I am induced to suppose it is, the common parent of all, assisted, as may probably be the case with the Begonia rex, by a cross with some pink-flowered species. Indeed, the B. Victoria of Linden (as it proves to be) I had no hesitation in considering as a painted-leaved variety of B. xanthina, and I have as little in referring our present plant to that also. But it deserves a place in every ornamental stove as much as if it were a distinct species.—*Bot. Mag.*

NEW WEEPING NORWAY SPRUCE.

Learning through Mr. Hunnewell's intelligent gardener, Mr. Harris, that a remarkably distinct variety of Norway Spruce, possessing very great beauty, had been originated near Dorchester, we applied to Mr. Wales, the proprietor, to allow us to have a sketch taken at our expense for our paper. Mr. Wales very kindly consented, and we received the drawing in due season.

Finding Mr. Harris' account of its beauty fully corroborated by the sketch, we have obtained from Mr. Wales a history of its origin, who has at the same time obligingly sent us a photograph also, from which we have made the following engraving.

Mr. Wales says:—

"I believe in the British catalogues a Weeping Spruce is advertised; but, on inquiry, am assured it is only the heavy hanging appearance of some trees more than others. This freak of Nature in my tree is a great curiosity.

"I received it, with some three thousand seedlings, from Mr. Wm. Skirving, of Liverpool, about ten years ago. It was some years before it threw up a leading shoot; then finding its habit so odd, I straightened the leader with a stick, and now for four years it has been marked as an object of curiosity, a large price for which has frequently been offered me. I had purposed not to make it known or propagate it for the present; but as Mr. Harris' notice has brought it before the public, I should be happy to see it appear in the *Monthly.*"

Weeping trees of all kinds are amongst the most useful class of trees to the landscape-gardener; but a Norway Spruce, from its superior hardiness and great popularity, must become a universal favorite. We are sorry to learn that it has not yet been propagated for sale. It is, perhaps, wrong to set our readers longing for what they will have to wait a while for.

Hoteia Japonica. *Morren and Decaisne.* Nat. ord., *Saxifragaceæ.* Native of Japan, Nepaul, Gossain and Kamaon.—A hardy herbaceous plant, growing about eighteen inches high. Flowers in large, terminal panicles. Petals five, spathulate, white.

This plant is better known under the name of *Spiræa Japonica.* Its habit is extremely like a herbaceous Spiræa, and the panicle of flowers is also superficially the same as that genus. It is very valuable as a winter-forcing plant; indeed, I know no plant more so. Out of doors it is best suited with a position moderately moist and partially shaded, and it will thrive in almost every kind of garden soil that is not a binding clay; but it thrives best in a mixture of loam and leaf soil or peat. As it flowers in April, care must be taken to keep off late spring frosts, or the blossoms may be prematurely cut. Propagates by division and seeds.—*Cottage Gardener.*

The Gardener's Monthly.

PHILADELPHIA, SEPTEMBER 1, 1859.

☞ All Communications for the Editor should be addressed, "THOMAS MEEHAN, Germantown, Philadelphia," and Business Letters directed to "THE PUBLISHER OF THE GARDENER'S MONTHLY, Box 406 Philadelphia."

THE Publisher particularly requests that Advertisements should be forwarded so as to be received before the 20th of the month, or otherwise they cannot be inserted.

TRANSPLANTING LARGE TREES.

IN this age of progress the "old fogy" is in disgrace. One time he was thought to be a vigorous, athletic personage; but progress has found out his defects. His manhood is fast passing away; and though he is still a very respectable old gentleman, the crotchets of his numerous progency so worry him, that they bid fair to bring down his gray hairs with sorrow to the grave.

But old fogyism is stubborn for all. In the march of progress, the ground has to be won inch by inch; and often many hard-won positions have to be precipitately abandoned. Progress is not always most securely footed when running fast. There may, after all, be such a thing as advancing backwards.

Nature is one of the most resolute of old fogies.—She will seldom be led, and still more rarely be driven. As she once did, she still continues to do; and, in spite of our wishes, threatens to continue in her apparently lazy, lumbering course for ages to come.

It is annoying to find her so little disposed to sympathize with our genius. Why will she not admit a little of our steam-power into her proceedings,—a little of our fastness into her old-fashioned pace?—*What is three-score and ten now in the duration of human existence?*

Years ago a fortune was worth a life-time, and those who built houses and planted trees, did so professedly for posterity. Now progress has perfected the science of labor,—and we may make our own fortune and enjoy it ourselves, with plenty of time after all this to think of those who are to come after us.

How nice it would be if nature would, in like manner, only improve on her old slow way of furnishing trees for us! Would it not be delightful if, after building our houses and laying out our grounds, we could sow the seed of our fruit, shade and ornamental trees, and see them arrive at perfection the same season; so that when ready for our occupation, the house should be surrounded with a ready grown vegetation, with all its charms of form, foliage and flowers, all in complete order to shelter and shade us, and all in perfect adaptation to our various pleasures, wants and desires.

It is too much the fashion to laugh at the citizen who runs after big trees. We do not. We sympathize with his wants, and will rather do our best to aid him in accomplishing his desires. Our citizen friend comes into the country fortified with a pillar of faith in his breeches pockets. He firmly believes he has only to say to this mountain, "Be ye removed and cast into the sea," to see it straightway accomplished. So he builds his house, and lays out his grounds, and surrounds himself with every comfort and convenience; but after all, the trees are wanting. Nature crosses him there; and there in that battle-field the strife commences, which is seldom closed until the ranks of his yellow-coated soldiers have become considerably thinned in the contest, and if ever victorious, he learns that victory may be bought at too dear a price.

We may talk as we like about the pleasure of seeing trees grow. There is, undoubtedly, great satisfaction in watching the unfolding of the budding beauty of individual trees. They seem to us like children, and as in children, we feel a species of interest in training them to our own ideas of uprightness and beauty. But what is all this to the bright anticipations of what they will be in the future, when the outlines are filled up, the contrasts at hand, and the delicate tints and hues that follow the playful actions of light and shade have full power to display themselves?

Foster says, "All our pleasure is in the race,—we value not the prize;" but this is not true of landscape-gardening. It is essentially the prize that is pleasing. The garden artist sees in the future what his work has to become, and the chief difficulty he experiences is to get his employer to see as he does.

Who can wonder? To the uncultivated eye these little patches of shrubs seem but puny excrescences on a magnificent plan. And he half suspects whether there can ever be any beautiful effect from that heterogenous mass of saplings, scattered so seemingly without order or method over the surface of the ground. Even if believing, he doubts whether he will ever live to see it.

Life is short. Three-score and ten soon passes away. After thirty-five, there is little difference between ten years and twenty; and the citizen who seeks to hurry up nature to her best efforts in the shortest possible time, is perfectly in the right.

We are sorry to say, however, that removing large trees is a delicate piece of business. As we have before said, Nature is such an obdurate old fogy, that she invariably makes a strenuous opposition to such attempts to disregard her warnings for us to learn to labor and to wait,—and in proceeding against her advice, we have to do so cautiously. We read of great results having been obtained in other lands, and the example of Sir Henry Stewart has been held up for our encouragement again and again. With a pretty extensive experience on the part of the writer, and with a careful observation of the results of the practice of others, we think we may say that the removal of large trees with us has never been attended with any thing like the success it has in other countries, and this, too, in the face of the fact that as great skill has been employed, and as much money at command, as any of the cases alluded to could boast of. So notorious is this fact, that it is dangerous to boast of much success in the matter. "When," once said a practitioner of the art, of the largest experience, to the writer, "when I hear a gardener boasting of having moved large trees successfully, I write him down a quack."

In the majority of cases, the trees die the first year afterwards; in other cases, the second; and in many, after remaining apparently healthy for several seasons, they gradually die, "inch by inch."

Large trees can be successfully transplanted. There is no doubt of the fact. An old man can recover from an accident. We see this exemplified every day.—Here is a greater risk. As a young man will recover much more easily, so it is with trees. Transplanting is an accident, from which the tree has to recover; and whether in trees or men, the older the subject the greater the precautions we must employ to effect a cure.

In a former number we have shown that excessive evaporation is the great cause of failure in transplanting trees. In plain language, the moisture is dried out of the tree faster than the injured roots can supply it, and so the functions of life are compelled to cease,—the chains of the vegetable clock run down, and the main-spring of vital action can work no more. In a large tree the amount of surface exposed to evaporation, in proportion to the injury sustained by the roots, is greater than in a small tree; and herein lies one of the greatest risks requiring insurance.

Some trees have a greater control over their evaporating powers than others, and these powers, again, vary at different seasons. The same time of removal and manner of procedure, therefore, that succeeds for one kind of tree will not do for another. Hence it has been found almost impossible to remove, in November and December, even moderate sized trees of the Weeping Willow, many kinds of Poplars, the British Oak, *or any tree that grows late in the fall*, with much success; because, from the unripe nature of their watery wood, the moisture dries out of them before the young roots get time to push. On the other hand, the Horse-chestnuts, Lindens, and others that ripen their wood early, and may be classed with the earliest to drop their leaves in fall, move very well.

That evaporation has to do with the success of large trees, is evident from the fact that when such die, the side of the stem on the south-west is invariably the first to show injury. The bark on the south-west is frequently dead, and, in many cases, has peeled off for two years before the final death of the tree; the bark on the other sides being quite green and fresh. But with the denuding of the bark on the driest side, commences the decay, which a few years after completes.

To succeed with large trees it is, therefore, essential that no pains should be spared to place the tree speedily in a condition to absorb moisture from the soil, and on the other hand, to obtain complete control of the evaporating power of the tree, until the roots shall have pushed sufficiently to sustain all demands that may be made on them.

In one sense, August is the best time, because the ground is then warmest, and favorable to the production of new roots; but the great objection is, that at that time the evaporation is so very great that the moisture in the trees escape so very rapidly, that the advantage is, in a measure, lost.

Trees with very rough bark, however, do well at this season. We have seen Ashes of immense size moved in August and September with perfect success, and without a single failure.

One of the best guards to this evaporation is to severely prune off the small spray. But it will be objected, that the advantage of having a large tree moved is lost if it is headed in. This is not so. A large tree, unpruned, if it lives at all, will not grow for several seasons; but if pruned, will grow several feet at once the first season, and continue to progress from the start. By bandaging the trunk, as described in our last by a correspondent, much evaporation may be checked.

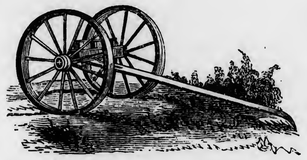
March and April, so far as the atmosphere is concerned, should also be a good month for removing large trees. But at that time, when the vessels are gorged with sap, which the new growth will require, the tree can the least spare any; so that this advantage also has its drawbacks; and we can only say with regard to the proper season for the operation, that after years of very careful study and experience, we can come to no other conclusion than that one season is as good as another,—either in the fall or spring,—provided we keep an eye to the evaporation either by pruning, shading, bandaging, or any other mode, as circumstances may favor.

In view of all this, it will, of course, be wise to do all we can to preserve every root possible entire and uninjured. Suppose a tree 25 feet high and 9 inches thick to be removed. Commence about 8 feet from the tree, describing a circle around the trunk, and digging down 2 feet deep at least. Then, with a pick, undermine the roots, and as fast as they are laid bare, tie them up towards the trunk, out of the way of the laborer; so continue to do, until the whole are exposed, and a very slight draught on a rope tied to the top of the tree, will easily draw it over. In the process it will be found to save labor, to keep deep—two feet—and clean out the soil well as the work proceeds. When the tree is loose, in order to raise it out of the hole, draw the head of the tree slightly on one side, and fill in a little soil under the roots on the opposite side; then draw the tree that way, and fill under the roots on the other, so continuing till the tree is brought to the surface, and the whole of the soil thrown out is filled in. The next thing is to remove it to the place desired. The head should be previously shortened in to the desired extent. It is so much lightened. A flat platform on two wheels, like a long-tailed dray, is one of the best machines for removing the tree. By tilting up the shafts, the tail can be run under the roots of the tree,

beneath which boards and a roller below had previously been fixed. Holes should be in the ends of the rollers, to allow of levers being applied to move them. The tree can then be easily rolled into the middle of the platform. Near the horse a roller is fixed. A rope fixed to the top of the tree and attached to the roller, allows of the tree being easily raised,—the contrivances usually attached to hay-wagons give the idea exactly. The principle is very simple, but on the whole much better than many of the complicated affairs employed, and one which any one of common understanding can work out for himself.

For moving very large and heavy trees, this way would not answer, as the weight of the head and trunk might cause the whole to capsize; and so provision must be made for moving the tree in a horizontal position.

Nothing is simpler than the machine used by Sir H. Stewart, a cut of which we here annex.



The wheels are backed up against the tree, the pole erected and lashed to the trunk, and then, by a rope at the end of the pole, the head of the tree is lowered to the ground. The horses are then hitched to the opposite or root end of the machine, and the whole is then ready for moving. More than 6 feet of a ball cannot be moved with any convenience, and for this ball of earth, near six feet in width of roots have to be sacrificed! So that in these matters it receives no consideration from practical planters. We need scarcely observe that the roots should, under no circumstances, be exposed to cold, drying winds, but the greatest care should be employed to keep the exposed roots moist, until they are again imbedded in the soil.

The cost of removing large trees depends on the quantity to be removed. It takes eight or ten men to operate to any advantage, and if enough work can be found to employ them, for a week, so that they could get used to the work; and there be a good superintendent, a resolute dictator, with all his proper smartness fully in action to direct them, trees 20 feet high and 9 inches in diameter, and to be removed a mile, on the average will cost from five to ten dollars each, according to the nature of the soil and attending circumstances.

After all we may do, nature will scarcely be propitiated. She seems to have a spite against such large transplanted trees, even after our efforts have triumphed over her obstinacy. They never have the freshness and vigor of younger trees; and while we advocate their removal when the true principles which we have described are understood, we only look on them in the light of temporary substitutes, to be replaced eventually by the younger trees which should be planted with them, and which in a few years would give more real pleasure and enjoyment than the most successful removal of larger trees would ever afford.

NOTES MADE ON RAMBLES.

IN the early part of July we made a short call at the nursery and garden of

Mr. H. A. DREER, in Mantuaville, West Philadelphia. Mr. Dreer is well known as an enthusiastic cultivator of what is termed florists' flowers, particularly Roses, Pansies, Dahlias, Petunias, Verbenas, &c. In the 1st class Mr. Dreer has a very large and varied assortment, and adds to it annually all that is new or interesting. At the time of our call, the first bloom of Roses was over, and it occurred to us that whatever kinds were really good *at that time* would be well worth noting as amongst the very best. Bourbon Reveille was in first-rate condition, as also was H. P. Duchesse de Cambaceres, H. P. Ornament des Jardins; Dr. Henon, a very pretty pure white H. P.; Bourbon Eugene Breon, white; Belle Angevine, striped; Marquis Babiano, in the way of Hermosa; Joseph Gordon, dark; Noisette Triomphe de Rennes, whitish; H. P. Madame Vidot, blush, good form; and Empress Eugenia, good blush Bourbon. The Dahlia has had a good chance for popularity this year, the season having been, so far, very favorable to its growth. Mr. Dreer's collection was even then showing well for bloom,—one magnificent bloom of that fine buff variety, Prince Napoleon, being then expanded. We noted, also, here a fine set of Double Petunias of the old Duchess of Bedford class, namely, those having large leafy calices. This class has always been popular for bedding purposes, on account of their free growth.

A few miles out of Mantua is Mr. Dreer's nursery and seed farm, occupying near seventy acres. To those unaccustomed to see a seed farm, and handling their few dollars worth only of seeds annually, it is a beautiful sight. They cannot but wonder where those acres of Cabbage, Celery, Onions, &c., bearing heavy crops, will ever find purchasers; and yet, notwithstanding the great extent of land under seed culture, the statistics of foreign commerce show an immense importation besides. In the nursery department, the Raspberries being then about in their prime, had for us the greatest attractions, and as Mr. Dreer takes pains to obtain most of the popular kinds, afforded a good opportunity to compare notes. Dr. Brinkle's Seedlings evidently were far ahead of most other kinds, the Orange, especially, being on the top of the list. The Cushing,—a very good fruit also,—Mr. Dreer notices what has before been observed by others, that it frequently bears a good second crop, and might become the parent of a greatly improved fall-bearing kind.

CENTRAL PARK, NEW YORK.—Being in New York recently, we could not, of course, neglect the opportunity of seeing how this great work progressed,—the great work of the age. This magnificent park, as our readers know, occupies more than 800 acres of ground, and before it is completed will, in the estimate of competent judges, cost at least ten millions of dollars. Though scarcely fifteen months have elapsed since the present plan of Messrs. Vaux and Olmsted was adopted, the work has been pushed forward with such vigor, that already the grand vision of beauty, that loomed like a mirage in the future, is beginning to take a bodily shape and actual existence.

Over $500,000 had been expended up to the 1st of January last, and to the present time the amount has probably reached near three-quarters of a million.—Great as the figures are, and heavy as they will yet become, New York has never undertaken an improvement more conducive to her permanent pecuniary interest than this great work will be to her. The thousands who will visit her expressly to see it, and the tens of thousands who for ages to come will prolong their business stay with her, to pass at least one day in her magnificently beautiful public garden, will be but amongst the least proofs that a penny-wise and pound-foolish policy has no place in her councils. The millions yet unborn, who will have to toil as heretofore in workshops in cellars and garrets the best part of their lives, will feel a pride in *their* garden and *their* pleasure-ground, which will be powerful for good on their conduct as men and as citizens. To cultivate a sound mind in a sound body is a religious duty in individuals and in society. Those innocent recreations which nature and art combine in landscape-gardening, preach more powerfully against the vices which the pent-up alleys of a crowded city engender, than the most logically constructed sentences to show the beauties of virtue or the enormities of vice; and the physical energy required to enjoy all these beauties is worth more, in a sanitary point of view, than all the medical dispensatories have been since New York was first settled. When her Park shall be completed, New York will save more in her prisons and hospitals, by the increase in the health and mental refinement of her landless population, than the whole cost of the Park, magnificent as it is, will ever amount to.

But to the Park itself. The plan of the ground we have already given and described in page 9 of this volume. The configuration of the ground is admirably adapted to its object, and so far as we could judge in its present imperfect condition, the design is well calculated to turn every natural point to the best advantage. It struck us that it might prove perhaps too beautiful,—that comfort had been, in some cases, sacrificed to effect, and that, had more trees been scattered along the main roads, they would be far more enjoyable. However, it was a "sweltering" hot day, and the grass, which had been recently sown, was scarcely above the ground, and so unable to exercise its tempering influence on the torrid rays,—and besides, for aught we know, more trees are yet to be planted along the apparently finished lines. At any rate, it is unjust to criticise so vast an undertaking in its present imperfect state.

It is but right to say, however, that the attempt to plant it with "big trees," is evidently a failure. Of the large number set out last winter and spring, not a dozen will be alive in two years from now, and the greater part will be in the stoves of some of the poor of the great metropolis before the sands of the present year run out, unless some effort be made to save them. Many of them were leafless, and not one had any of the vigorous foliage indicative of sound and healthy roots. The trees are not quite so large as we expected to find them. Many much larger trees have been moved in other parts of the country with much greater success.

Most of the trees are elms,—itself an unfortunate selection, as the attacks of the elm-slug are approaching New York on all sides, slowly, perhaps, but surely. The trees average from 25 to 30 feet high and about 10 inches thick two feet from the ground. They do not appear to have had a single branch or the least particle of spray cut off, and this in itself, as most practical men suppose, is much against their success. If one-fourth of the head had been cut in, or one-half could yet be taken off, the result might or yet may be different to what it now indicates. We had not the pleasure of finding Mr. Olmsted at the office, but we were informed on the ground that this experiment is not the suggestion of that gentleman; but that a party offered to plant the whole for thirty dollars a tree, conditionally on their remaining in good health and condition for two years; and as the city would lose nothing by the experiment and gain much by its success, Mr. Olmsted did not feel at liberty to decline the offer. The trees were said to have been brought nearly thirty miles.

All the main drives are under construction—some of them completed. The body of the road is filled up from twelve to eighteen inches deep with hard stone broken small by machinery. On the surface about one inch deep of drab-colored gravel, brought from Peekskill, is spread, which is then rolled by a heavy roller of about seven feet in diameter, drawn by six horses. In one part of the Park an experiment was being tried in making the body of the road of unbroken stone set on edge, as in cobble paving, and a few inches only of broken stone placed on the surface. It appeared to us to take longer to make such a road, but much better and more substantial,—a costlier way, but perhaps cheaper in the end, which time alone can test. It is pleasing to observe that whatever has been done is finished with an artistic completeness we should hardly have expected in so large an undertaking. Such minuteness of attention to small matters augurs well for the perfection of the whole design when completed, and disarms what little inclination to criticise unfavorably an uninformed stranger may naturally feel when without any guide to the objects aimed at in a scarcely begun operation.

As a specimen of this completeness, the part of the

grounds called the Ramble is a good illustration. Little hillocks have been, by planting, elevated into mounds, and beautiful winding walks course like streams in every direction around them. Each mound is adorned with its own species of vegetation,—here dwarf Pines, there Locusts, and then again gums; and every rock has its own kinds of climbing vines and Honeysuckles, which are assiduously trained to grow over and cover them. Frog ponds have been developed into running streams and small lakes, now expanding and now contracting, and yet so naturally and withal artistically, that the whole seems but an epitome of the great Park when completed. Old grape vines led over the narrow pathways, diffusing a delicious fragrance and grateful shade; caves and grottoes, terraces and shelving rocks,—now in the depth of some modest alcove, now breaking forth into the bold gaze of the world on some slender eminence to doubtfully dwell a moment on the glorious sights around. Rustic summer-houses for the weary; rustic seats, in shady dells, by running streams, for the contemplative; cool springs for the thirsty, and pleasure for all.

Should the whole Park be as this miniature is, truly New York will have something to be proud of, and we Americans also, that on this glorious continent we have an enterprise that, for a single city to accomplish, will surpass any thing of the kind in the world.

Starting for a short trip up the Hudson River, we took the 6 o'clock, A.M., train by the Hudson River Railroad. Every one has heard or read of the "noble Hudson." Beautiful in a true sense it cannot be called south of Newburg; but for grand and picturesque scenery, few rivers, perhaps, can excel it.

A ride of about twenty miles brought us in sight of

Croton Point, where Dr. Underhill has "for many years past been engaged in the formation of one of the largest vineyards in this country; and to see how well he has succeeded, it is only necessary to take the boat or cars to Sing-Sing, whence you can readily reach the vineyards. They are daily visited through the summer by numerous travellers, who are permitted to drive through the grounds.

"Croton Point, jutting out into the Hudson, slopes from a centre either way to the water; the north-west and south-east slopes are covered with vines so arranged, that a perfect draught of air is perpetually kept up between the rows. The land for these vines has been prepared at a cost of over four hundred dollars per acre; and from a soil apparently poor, you see thousands and thousands of grape-vines springing forth with luxuriant growth and full of clusters of green, white, pink and purple fruit. The odor of these vineyards, when the vines are in bloom, is exceedingly fragrant; and after once inhaling this perfume, your Frederick Augustus will cast aside his Mille Fleurs in disgust. At the end of the Croton Point, is situated the house, a beautiful Italian villa, from the tower of which is the most charming view perhaps on the whole Hudson.

"Immediately around the villa, you see a large and choice variety of pear trees, whose luscious fruit might tempt a sated Sybarite.

"A little farther up the Point are the deer-park and fish-pond. In the former are some beautiful deer, that seem free to wander where they will. Over the whole of the farm there is scarcely a fence, and these deer are shut in by wires stretched from tree to tree, so that the view is in no way interrupted, and the eye is not offended by the beautiful undulation of fields destroyed by the wretched-looking fences which cover up half the soil of the State.—Around the bounds of the fish-pond (through which the Doctor has ingeniously contrived that the tide shall so ebb and flow as to permit the fish to enter, and having entered, not go forth again) he has planted a most select variety of plum trees, whose purple and golden fruit hangs out over the water, free from all 'contagious blastments' of the curculio, mildew or the like.

"In addition to his vineyards at Croton Point, the Doctor has near at hand his Mount Green farm, which he contemplates covering with vines. You need not go to the Rhine to see vineyards and enjoy scenery. The man who establishes in any country a new branch of industry, is a greater Howard than Howard; and in a few years we shall send wine to Europe, instead of eagerly quaffing foreign abominations, indulging the while the insane idea that they are the innocent juice of the grape."

Passing Sing-Sing,—wherein is many a caged Leander, who would gladly swim the "Hellespont" beyond, whether any "Hero" was over there to tempt his swimming powers or not,—and before reaching Peckskill, we noted along the banks of the river a peculiar form of Red Cedar, that it would be quite a favor to landscape-gardeners if some of our enterprising nurserymen along the line would get them into the trade. They are as distinct as the Irish Juniper or Yew are from the spreading kinds, and attracted our attention at once by their close, compact, columnar forms.

GOVERNMENT AID TO SCIENCE.

We have more than once drawn attention to the efforts of the Dutch Government in rendering their already rich colony still richer. Our own government does its best to aid individual effort by the distribution of seed, &c., through the Patent Office, and we can point to many acquisitions, as, for instance, the Chinese sorghum, the Texan camels, &c. The French Government goes a step farther, and stocks the rivers of France with fish-eggs—by-the-bye, a thing which our States might imitate. The French Government also stands at the head of the "Société d' Acclimatisation," trying to introduce useful animals from all parts of the globe into France. It further has a special department in the ministry for Algeria, for the development of that province in the agricultural line,—not exactly the strong point in the French nation; and, if we mistake not, Russia has a similar institution for her Circassian dominions.

But the Dutch Government goes farther, and with the true spirit of a trading nation, it takes enterprise and speculation into its own hands, treating the waste lands of Java something like a grand national farm. In this way they have taken some of the best botanical savans into their employ and sent them into countries of similar latitudes, climate, &c., hence to bring into Java plants, &c., which might prove a source of prosperity and revenue. It was, for instance, no easy task to transplant the Chincona from Peru to Java. Dr. Hasskarl and Mr. Junghuhn were the most recent laborers in that department. (We have given, in a former number, an extract from a work of the latter on Java.) Whole forests have been planted. Some trees, which have lately died, have been analyzed, and, though young, have yielded pure quinine, not inferior to the Peruvian. Vanilla, cocoanuts, Coulteria tinctoria and Capsicum pubescens have been planted likewise, and promise success.—The latter two also came from Peru. The Coulteria is used in Peru for tanning, and for the preparation of ink. We need not mention Java coffee—its excellence, and the revenue the Netherlands draw from it. But we will mention—and with a sense of gratitude—the Botanical Garden at Buitenzorg in Java, established and maintained in best style by the Dutch Government, and under the care of some of the most eminent botanical professors of Europe. Favored by a friend with some details concerning it, we shall recur to it at a future opportunity.

NOTICE TO INVENTORS.

As we are anxious to keep our readers acquainted with all the new improvements and inventions of a horticultural character, and as an inducement to inventors to furnish such information, we will state that any tools, implements, or machines that may be submitted to our examination, will, if thought practical and useful, be noticed, and an engraving made of them, which engraving we will afterwards cheerfully place at the disposal of the inventor.

THE EXHIBITION OF THE STATE AGRICULTURAL SOCIETY.

We take this opportunity to call the attention of our readers to the schedule of premiums offered by the State Agricultural Society for fruits, vegetables, flowers, floral designs, &c., &c., at its Exhibition, to be held in Philadelphia on the 27th, 28th, 29th, and 30th of September. We notice that the Committee on Flowers, Plants, and Designs is composed almost entirely of ladies, with the veteran General Patterson at their head. He will, no doubt, look forward to the performance of his duties on this Committee with more misgiving than he ever did to the storming of a Mexican battery. An abstract of the schedule will be found under the head of Horticultural Societies.

FALL ADVERTISEMENTS.

As the planting season has again arrived, we call the attention of those who are in want of trees and plants, to the large number of nurserymen's fall advertisements in this number.

Questions and Answers.

Herbaceous Plants. J. P., Washington, D. C.—The following is a list of good hardy kinds, without reference to their being novelties or not:

Achillea ptarmica fl. pl., A. rosea, Aconitum napellus, A. ochroleucum, Amsonia salicifolia, Anemone japonica, Hepatica triloba (various colors), Anthericum liliastrum, Aquilegia canadensis, Alyssum saxatile, Asclepias tuberosa, Aster Novæ Angloea rosea, Baptisia australis, Betonica rosea, Campanula grandiflora, C. carpatica, C. nobilis, C. persicifolia alba, Cassia marilandica, Catananche cerulea, Cheiranthus Marshallii, Chelone barbata, C. oblique, Clematis revoluta, Colchicum autumnale, Convallaria majalis, Corydalis bulbosa, Cynoglossum omphalodes, Delphinium formosum, Diclytra spectabilis, Dictamnus fraxinella, Digitalis purpurea, Dodecathon media, Dracocephalum virginicum, Epilobium augustifolium, Frittillaria imperialis, Funkia undulata, Geranium striatum, Geum coccineum, Gnaphalium margaritaceum, Hemarocallis fulva, H. cerulea, Hypericum pyramidatum, Lathyrus latifolius, Lilium bulbiferum, L. candidum, Lupinus polyphyllus, Lychnis chalcedonica, Lysimachia quadrifida, Lythrum salicaria, Monarda didyma, Nuttallia papaveracea, Œnothera macrocarpa, Pentstemon roseum, P. Wrightii, Potentilla atrosanguinea, Salvia liliana, Scuttellaria japonica, Sedum Sieboldii, Statice armeria, Spiræa lobata, Stenactis speciosa, Stokesia cyanea, Tradescantia virginica, Trollius europæus, Veronica spicata, V. gentianoides, Zauchneria californica.

Herbaceous plants have been so neglected, that we have had to tax our memory pretty heavily to arrange this list for our correspondent. Those we have given may be relied on as amongst the best. If we have omitted any thing very desirable, we shall be glad for our correspondents to supply them. We are pleased to note the growing taste for these beautiful flowers,—so peculiarly adapted, too, as they are to our wants, in being able, in a measure, to take care of themselves.

Washington, D. C., July 11th, 1859.

Mr. Thomas Meehan:

Dear Sir—I am much obliged to you for your notice of the new Bignonia. Enclosed are some leaves and flowers, from which you may be able to say correctly what it is. It has been in bloom now over two months, and it is really very fine. *

[Not recognizing the plant, we handed your specimen to one of our best botanists, whose knowledge of Central American plants is very complete; but he had no one like it in his herbarium. It is, in all probability, an undescribed species, to name and describe which he would require seed-vessels as well as branches and flowers.—Ed.]

Montreal, Canada.

Why do you not give an exact description of the Plantarium, with sizes and sections drawn to a scale, for the benefit of your foreign and distant readers?—Some few hints on its management would also be of service.

Keep your friends and readers who are living near the Arctic circle sometimes in mind in your articles. A few cuttings of "Frank's" Lawrenciana Rose would be acceptable if they will carry by mail.

Impress upon all your advertisers the necessity of putting prices to their wares. Subscriber.

[Will our correspondents to whose communications the above inquiries refer, favor us with answers to these questions?—Ed.]

Rhubarb Wine.—A correspondent, signing his letter "Chemist," sends us a long chapter on the paragraph that appeared in our July number, headed "Rhubarb Champagne." He thinks we were "carried away by our imagination." "Rhubarb stalks contain the bi-oxalate of potash, a powerful poison—next to arsenic." He "would not like to risk half a bottle of it." "Currants, gooseberries, and other fruits are free from oxalic acid,—they have tartaric, *mallic*, (we quote literally,) and some other acids, wholesome and agreeable." "Providence intended they should be used as food for man. We read of wine—grape wine—and oil in the Bible, but nowhere there of the juice of rhubarb stalks."

Rhubarb stalks no doubt contain "poison," and so does the peach and many other fruits. They do say the purest wines are not free from "poison," and temperance lecturers dwell freely on the fact. As to our imagination, we can assure our friend we did not take enough of it to "carry it away." If he will call at our office and will "carry away" a glass, he may judge for himself whether we said any more of it than it warranted.

As to the wine of the Bible, it is no more to the point than the silence of ancient writers respecting Holloway's Pills or Wright's Family Medicines.—Though differing from "Chemist," we may say that we do not set ourselves up for judges of wine. It is very much a matter of taste, and we are free to say that we have never cultivated the taste very highly. We do not wish our praise (which, at the best, was not very fulsome) to be taken for any thing more than it is worth. We thank him for his good intentions, and may profit by some of his suggestions.

Since writing the above, a "Cincinnati Subscriber" sends us a communication, in which he says:

"Your paper has done the public a favor, as I believe this is the first notice they have had, that in buying this champagne they were not buying a grape wine." He also says: "If Mr. E. wishes to enable persons to judge of the value of his champagne, he should put on his bottles and boxes 'Eshelby's Champagne, made from Rhubarb.'"

The specimens noticed in our July number were presented to the publisher by a very old and valued friend in Cincinnati, who is in the habit of sending him specimens of the various brands as they appear, and who, he is sure, is in no way interested in Mr. Eshelby's enterprise, if, indeed, he is even personally acquainted with him. We think with our correspondent, that the label should say distinctly that it is made from rhubarb. We had no idea, however, that there was any intention at concealment; it was sent to us expressly as Rhubarb Wine. Through the same channel we have just received samples of Longworth's *Isabella* Champagne, which to us seems quite equal to the celebrated Catawba; but—we are afraid our taste "may be carried away by our imagination."

Athens, Ga., July 23, 1859.

A Beautiful Bouquet Flower.—Mr. Meehan, I take the liberty of sending you a small specimen of the Polygonum teretifolium, mentioned by the Macon correspondent of your journal for January, although it appears to have been discovered by Mr. Robert Nelson, who published a notice of it (in the *Soil of the South*, I think) several years ago. I have never seen nor heard mention of it in our periodicals by any body else; but certainly a more appropriate or charming thing, either to wreathe into the tresses of a bride, or (what a strange and touching contrast!) to lay upon the coffin of a child. It will not be easy to find. Do you know of a growing plant in the collection of any florist near Philadelphia? Please report what you may happen to know about it.

M. A. W.

[Your plant is *Polygonella ericoides*, of *Gray*, and not, we believe, in cultivation here. There is another species, also very beautiful—*P. polygamia*, (*Polygonum polygamum* of *Ventenant*, See Darby's Bot. of S. States p. 489,) and also a native of the Southern States. Mr. R. Nelson deserves the thanks of floriculturists for first bringing so handsome a plant under their notice.—Ed.]

Fine Figs.—We have received from Mr. Dickenson, of Camden, N. J., some splendid specimens, preserved in sugar, showing to what great perfection they may be brought in this latitude by good culture and treatment.

Mushrooms. C. Garrettson, York.—The article given in our last number is, we presume, exactly what you are looking for.

The New Lawn Plant, Spergula pilifera. J. C. Helme.—Mr. H. W. Sargent, of Fishkill Landing, N.J., has this plant already growing successfully, as also have several others of our public-spirited amateurs. We have given some account of this plant in former numbers, but do not anticipate great results from it in our climate. We have too many troublesome weeds to contend with, from which our English friends are, in a manner, free.

Watson's Seedling Raspberry.—A correspondent asks for information respecting it,—what it is, and who has it? We do not know. Do any of our readers?

Cranberry Culture. J. B. Johnson.—These will, no doubt, do well so far south as Franklin Co., Ind. A little work, entitled "Cranberry Culture," and published by C. M. Saxton, New York, will give you every information concerning their culture in a more detailed way than our space will afford.

J. S. Woodbury, your ground plan of a cheap country house possesses many points of merit. We should be pleased to receive a sketch of the elevation also.

Oil Scrapings. J. Mulford.—All fatty or nitrogenous substances make excellent manures. Of oil scrapings specially we have had no experience; but you will, no doubt, find them well worth taking care of.

Canadian Wild Flower. B. Losee.—The plant you describe, with yellow petals in the flower, and black centre, is probably a species of *Rudbeckia*, and not likely to be new. There are but very few things on this large continent that have not been described and named.

Vilmorin & Co., at Paris, France; Peter Smith & Co., Hamburg, Germany; Haage Erfurt, Prussia; Charlwood & Co., London, England, are amongst the best known foreign seedsmen.

Hornet Raspberry. S.—This is not an English name. It was named after a French gentleman, and is pronounced "*Hornay*."

Several Notices of fruits and flowers received, communications and other favors on hand, are held over, for various reasons, till next month.

Obituary.

MR. JOSEPH WELLS,

A well-known raiser of new Roses in England, is amongst the recently deceased. He was very successful with Noisette Roses, and raised many good seedlings, which are favorites to the present day.—Among them are Wells' Garland, Wells' White or Madame d'Arblay, Wells' Purple Noisette or Sir Walter Scott, Wells' Pink, Wells' Red, and Wells' dwarf Floribunda Noisette.

MR. E. MAUPAY,

Of the firm of D. Maupay & Co., of New Orleans, died recently, after a lingering illness. Mr. Maupay was a native of Philadelphia, and son of the late Mr. S. Maupay, one of the pioneers of American gardening. The son, like the father, was distinguished as a horticulturist.

Books, Catalogues, &c.

Common Objects of the Country; by Rev. J. G. Wood. G. Routledge & Co., New York.

We have derived so much pleasure and instruction from the perusal of this little work, that we can assure our readers that it is just the thing for the great number of our citizens who spend the summer in the country, and who are, for the most part, ignorant of the natural history of the objects and animals by which they are surrounded. After reading it,—profusely illustrated as it is with colored drawings,—a walk in the country will not be the dull, uninteresting and tiresome occupation that it may have been heretofore; but at every step objects which before were unknown by name even, will be invested with a new and absorbing interest, from the fact that the whole history, habits and characters are now made clear to us. The work is written in a popular style, and the quiet vein of humor which runs through its pages prevents its being in the least dry or prosy. As a specimen of the author's style, we lay before our readers the author's description of "*taking a walk*," in the ordinary acceptation of the term. No one can fail to acknowledge the truthfulness of his remarks:

"As, in common with many other animals, mankind are furnished with legs, and the power to move them, it is universally acknowledged that those limbs ought to be put to their proper use. But while men agree respecting the importance of the members alluded to, they differ greatly in the mode of employing them.

"To the tailor, for example, legs are chiefly valuable as cushions, whereon to lay his cloth. For the jockey, the same members form a bifurcated or pronged apparatus, by the help of which he sticks on a horse. The legs of the acrobat are mostly employed to show the extent of ill-treatment to which the hip-joint can be subjected without suffering permanent dislocation. The dancer values his leg solely on account of the 'light fantastic toe' which it carries at its extremity. The turner sees that two legs are absolutely necessary to mankind,—*i. e.* one to stand upon, and the other to make a wheel run round. The surgeon views legs—on other people—as objects affording facilities for amputation. The boxer professionally regards his legs as 'pins,' upon which the striking apparatus is kept off the ground. The soldier's opinion of his legs is modified according to the temperament of the individual, and the position of the enemy. Some people employ their legs in continually mounting the same stairs, and never getting any higher; while others use those limbs in continually pacing the same path and never going any farther.

"And of all these modes of employing the legs,

the last, which is called 'taking a walk,' is the dreariest and least excusable.

"For, in the preceding cases, the owners of the legs gain their living, or at all events their life, by such employment of those members; and in the case of the interminable stairs, the individual is not acting by his own free will. But it does seem wonderful, that a being possessed of intellectual powers should fancy himself to be the possessor of a right leg and a left one, merely that the right should mechanically pass the left so many thousand times daily and in its turn be passed by the left; while the sentient being above was occupied in exactly the same manner as if both legs were at rest, snugly tucked under a table.

"Sad to relate, such is the general method of taking recreation.

"A man who has been over-tasking his brain all the early part of the day, rises corporically from his work at a certain time, places his hat above his brain, buttons his coat underneath it, and sallies forth to take a walk.

"Whatever subject he may be working upon, he takes with him, and on that subject he concentrates his attention. Supposing him to be a mathematician, and that the prevalent idea in his mind is to prove that A B C=(D E F+G H I). He takes one final look at his Euclid while drawing on his gloves, and sets off with A B C before his eyes.

"As he walks along, he sees nothing but A B C, hears nothing but D E F, feels nothing but G H I, and thinks of nothing but the connection of all three.

"An hour has passed away, and he re-enters his room without any very definite recollection of the manner in which he got there. He has mechanically paced to a certain point, mechanically stopped and turned round, mechanically retraced his steps, and mechanically come back again.

"He has not the least recollection of any thing that happened during his walk; he don't know whether the sky was blue or cloudy, whether there was any wind, nor would he venture to say decidedly whether it was night or day. He *does* recollect seeing a tree on a hill and a spire in a valley, because, together with himself, they formed an angle that illustrated the proportions of the triangle, A B C; but whether the tree had leaves or not, he could not tell. But he is happy in the consciousness of having performed his duty;—he has taken a walk, he has been for a 'constitutional.'

"O deluded and misguided individual! The walking powers are meant to carry *yourself*—not only your corporeal body—into other scenes, to give a fresh current to your thoughts, and to give your brain an airing as well as your nose. The mind requires variety in its food, as does the body; and to obtain that change of nutriment is the proper object of taking a walk.

"That a rational being can condemn himself to walk three miles along a turnpike road, and three miles back again, at one uniform pace, his eyes directed straight ahead, and his thoughts at home with his books, seems incredible to ordinary personages.

"Yet such British fakirs may be seen daily in all weathers, on the roads leading from university towns, going at a rate of four miles per hour, their hats tilted towards the back of their heads, their bodies inclining forward at an angle of 80°, their lips muttering polysyllabic language, and their eyes as beaming as those of a boiled cod-fish.

"Now, the real use of taking a walk is, to get away from one's self, and to change the current of the thoughts for a while, by changing the locality of the individual.

"In order to do so, he should cast his senses abroad, instead of concentrating them all within himself; and from sky, air, water and earth, draw a new succession of images wherewith to relieve the monotony within. There are various modes of attaining this object; and each man will follow that mode which most accords with his own character.

"For example, if he is an astronomer, he will look to the heavenly bodies; if a geologist, his eyes will be directed to the earth; if a botanist, his mind seeks employment among the vegetable productions; if a meterologist, the wind's temperature and atmospheric phenomena will claim his attention; if an entomologist, he will find recreation in watching the phases of insect life, and so on."

Although the extracts are lengthy for our space, yet we cannot forbear to quote the following very laughable, though perfectly natural, anecdote:

"A very forcible and unsophisticated opinion was once expressed to me, after I had dissected and explained the anatomy of a silkworm to an elderly friend. He remained silent for some time, and then uttered disconnected exclamations of astonishment.

"I asked him what had so much astonished him.

"'Why,' said he, 'it's that caterpillar. It is a new world to me. I always thought that caterpillars were nothing but skin and squash.'"

The work is by an English writer, and the house of Routledge & Co. has also a branch establishment in London; but the objects treated of are of everyday occurrence in American country life, and we cannot but hope that every one going to the country, if only for a day, will procure and read a copy of "Common Objects," if he wishes to prosper by his trip.

J. T. Little, Dixon, Ill. Catalogue of Fruits, Trees, Shrubs, &c. "The reputation of our nursery depending on the success of our trees, we feel particularly anxious that they should do well; and if purchasers and forwarders will only treat them as living things, we have no fear of the result." So says Mr. Little in his "To Correspondents." This is the right way to feel and to act.

C. Reagles & Son, Schenectady, N. Y. Trade List, with description of several new plums, &c. They offer 300,000 plums to the trade this fall, besides other nursery stock.

W. Reid, Elizabethtown, N. J. Wholesale List and General Catalogue. The list of hardy Evergreens in the Catalogue is one of the most full and complete we have had before us, and the list of Fruits is varied and extensive.

P. J. Berckmans & Co., Augusta, Georgia. Supplementary Catalogue. Among the grapes grown largely for vineyard culture, we notice the Warren. With "Cape Jesamine for hedges," and other good things enumerated here, who can help sighing for the pleasures of the "sunny South?"

Smith & Hunchett, Syracuse, N. Y. Wholesale List of Fruits, Trees, Plants, &c. This establishment has grown to a large size, and stock is offered in large quantities.

A. Frost & Co., Rochester, N. Y. Descriptive Catalogue of Roses, Trees, Shrubs, &c. A very valuable Catalogue, as the descriptions are very full and accurate.

R. Buist, Philadelphia, Pa. Wholesale Price Current of Dutch and other Bulbs, in which most of the popular kinds are offered by the 100.

M. D. Freer & Co., Watkins, N. Y. (formerly J. Hildreth & Co.) Wholesale List of Fruits, &c.

W. R. Prince & Co., Flushing, Long Island, N. Y. Descriptive List of Strawberries. 143 varieties are described.

Paul Chilson, Bellingham, Mass. Treatise on Cranberry Cultivation. This is a very valuable production, and we can recommend it to all our friends wishing to try their hands at this fine fruit.

Joseph Taylor, Newport, Ky. Catalogue of Fruits, &c., &c.

J. M. Mattison, Jacksonville, N. Y. Sheet Catalogue of Nursery Stock, with full descriptions.

Strowger & Bro., Rochester, N. Y. Circular of Fruit Seeds.

Asher Hance & Son, Red Bank, N. J. Wholesale List of Small Stock.

White & Prentice, Toledo, Ohio. Descriptive Catalogue of Fruit, &c.

Pear Culture in the South. A pamphlet, by L. E. Berckmans. We have perused this essay with much interest. It is filled with valuable hints and suggestions, which, from the known experience of the writer, and his well-earned reputation as a pomological authority, will be very valuable to the public.

Isaac Jackson & Co., Jennerville, Pa. Catalogue of Fruit and Ornamentals. This was formerly the stock of Thomas M. Harvey.

O. B. Maxwell & Co., Dansville, N. Y. Wholesale List. "Has now four hundred acres under cultivation."

Domestic Intelligence.

To Cook Asparagus.—Cut the lower part of the stalks in three slices, if tough, and boil them eight or ten minutes, before the upper part is put in. Lay the remainder together, tie it carefully in small bundles, and boil from fifteen to twenty minutes. Just before it is done, put in your salt, toast a piece of bread, butter it, then take up your asparagus carefully with a skimmer, take off the string and lay it on toast, and turn a little melted butter over it.—*N. Western Farmer.*

Shading the Trunks of Fruit Trees.—In an admirable article in the *American Farmer*, Mr. Van Buren says:

"We recently made a short trip through a portion of Middle Georgia, and saw numerous orchards of apple and peach trees, but amongst all, we never saw one tree properly trained or trimmed—all were trimmed up high, and from one-third to one-half of all the trees we saw, were dead on the south-west sides of their trunks, yet we never found one man who could tell the cause, and probably had never even thought of it.

"The scalding of the trunks of fruit trees on their south-western sides, by the rays of the sun falling on them during the long days of summer, kills and injures more of them than all other causes and diseases put together, and the owner alone is to blame for it, through his pruning operations.

"With young and newly planted trees which have but small or no tops, it is necessary to shade artificially, by placing a clapboard beside them, securing it with a tie of some sort, or any other means which may suggest itself.

"As soon as the tops are sufficiently grown to protect the trunks with their shade, which is the second or third year, all other means may be dispensed with. Some will say, I cannot make my trees branch out low down. To such we say, top them, and, my word for it, you will not have it to say again. The naked trunk of an apple tree should be about three feet high; that of a peach tree from one and a half to two feet high to the limbs, which latter should be shortened about one-half their growth annually, which will keep a new growth of fruit-bearing wood in the interior of the tree, instead of being alone at the ends of the limbs."

Paint with Singular Preservative Qualities.—By subjecting eight parts by weight, of linseed oil, and one part of sulphur, to a temperature of two hundred and ninety-eight degrees, in an iron vessel, a species of paint possessing singular preservative qualities, is produced. Applied to the surface of a building, with a brush, it effectually keeps out air and moisture, prevents deposits of soot and dirt, and preserves the beauty of the stone, wood or brickwork to which it is applied.—*Valley Farmer.*

Tea in South Carolina.—Dr. J. B. Barrett, near New Market, is able to treat his friends with a cup of tea of his own growing, he having succeeded in cultivating the Chinese tea-plant, and the Chinese Olive (*Olea fragrans*) with which it is scented.—*Jour. of Agriculture.*

Perfection in Advertising.—Some enterprising Yankee nurseryman has invented a process by which the name of the grower is found in the apple enclosing the core—"it is said."

Mathew's Curculio Remedy.—J. J. Thomas says, in the *Indian Land Chronicle:*

"I fear it will not *generally* prove any better, *if as good*, as the combined (an excellent one) of pigs, poultry, &c., with knocking on sheets. The latter is, I believe, widely known; but two requisites are very important for its success, namely, a sharp, sudden jar as of an axe or sledge on the stump of a sawed limb; to be *efficient*, there should be a *frame* for stiffening the muslin, to be *expeditous*.

Peaches in South Carolina.—Ripe peaches from the orchard of Mr. James Purvis, near Aiken, were shipped to New York from Charleston on the 11th of June, and sold there at an average of $12 per box, containing one and a half bushels.

Improved Varieties of Potatoes.—*Prince Albert.*—A seedling imported from England. They are an oblong shape, entirely white, with a few eyes, which lie upon the surface, being one of the most beautiful potatoes ever grown. Of this variety, I planted one acre on sward ground—yields 256 bushels to the acre.

State of Maine.—This is a very fine variety, entirely white, oblong, with rather deepset eyes; cooking very dry, and of fine flavor, matures quite early; yields a fair crop; no rot.

Strawberry.—This potato is very handsome, and good for the table, but it cannot be recommended for general cultivation, being a very delicate grower, requiring much care to get a medium crop, and rots badly.

Davis Seedling.—Originated in Massachusetts. This is one of the very best potatoes grown, taking everything into consideration—size, productiveness, hardiness, &c. It is slightly oblong, flattened, red skin and white inside, cooking perfectly dry and mealy, and fine flavored. I planted one half acre of this kind on corn stubble, in drills 30 inches apart, 20 inches in drills; the yield was enormous, at the rate of about 350 bushels to the acre. It grows to a large size, and perfectly solid. It is very free from disease, and a most valuable acquisition; ripens with the Mercer.

Peach Blow.—This potato has so far improved that it is now considered one of the best for the table, and is likely to become one of the leading market varieties, but to the farmer there are some objections to this potato,—it requires the whole season to mature. It has a very rank-growing vine, that requires more room than any other potato, and it yields only a medium crop compared to the Prince Albert and Davis Seedling.—*Miner's Rural American.*

Entomology.—Charles L. Flint, the able Secretary of the Board of Agriculture, has been authorized by the Legislature to prepare a new edition of the report by the late Dr. Harris, on the insects of New England injurious to vegetation. $8,000 was appropriated, and Mr. Flint has engaged the assistence of competent entomologists, who are prosecuting the necessary investigations.

Apple Trees for Fence Posts.—I set out about fifty rods of apple trees three feet apart, a few years ago, and when three inches in diameter, nailed boards to them, with the middle tree on the opposite side—boards 16½ feet long. I now wish I had set out all my orchard in this way. Some say the wind will rack and break the nails. Mine have not. I think it economy, even in our wooden country, and on the Western prairies I think it would be a great saving. Let the trees get large in the nursery before setting out, and you will not have much trouble by the cattle spoiling them.—*Rural New Yorker.*

Foreign Intelligence.

New Watering Tube.—M. Favre Bellanger has invented a tube to attach to a watering-pot, in place of the ordinary rose, which possesses some advantages, particularly where broad surfaces such as seedbeds are to be irrigated. The nature of the invention will be seen by referring to the annexed cut.

A is the cruciform or T shaped tube, which is put on the mouth of the watering pot, the cross-piece being perforated with two rows of small holes. When only a narrow space is to be watered, this cross-piece is closed at B and C with corks; but when a wider surface is to be irrigated, these corks are removed, and the other pieces D and E are put on at B and C. The pieces D and E are closed at one end.—*La Revue Horticole.*

Calceolarias.—As early as possible in September I clear out all the soil of a spent Cucumber or Melon frame, turn up the dung inside to the depth of a foot to ensure drainage, and then spread thereon a layer of ashes, to prevent the worms in the dung from intruding.

I have always found the soil which was used one season for Melons good enough for Calceolarias. I, therefore, turn up some of this, adding leaf mould and sand. So that my compost is composed of equal parts of the three named. This should not be sifted, but placed four inches deep on the ashes, and slightly beaten with a spade; by which the cuttings, when inserted, may more readily take hold of it. This plan I prefer to boxes or pans, the cuttings not being so likely to suffer from any little inattention.

In selecting my cuttings, I carefully avoid any plants not quite healthy. I proceed to prick them in the usual manner, and shade them, by whitening the inside of the glass. This will render the light, in the hottest days of September, sufficiently subdued.

A short time is required to root them in this way. As soon as the roots are one inch long, I pot them in 60-sized pots, and place them on ashes in a cold frame, where they will also require shading until the plants begin to grow; which as soon as I perceive, I take out the head of each with a small knife, leaving but two joints above the surface. By this timely stopping I ensure a sufficient number of shoots to form the basis of a compact, healthy plant. This done, nothing further will be required until the 1st of November but attention to watering, and the occasional stopping of any plant which might not be ready at the first time of this operation.

About the time stated I take out a few rows on one side of my frame, to give room for re-arranging; and on a fine day go over my entire stock, removing any decaying foliage, weeds, or superfluous shoots; and, having done so, fumigate the plants once.

They are yet allowed to remain in frames, as I prefer them to any heated structure, provided frost can be kept out, and the situation is tolerably dry. I always find Calceolarias delight in a low temperature, and are not injured by slight frosts, but rather benefited by them—these arresting any tendency to grow. I do not advise a trial of this, as probably the experiment may be carried too far, and the stock lost. I merely say slight frosts will not kill Calceolarias. This winter having been mild, I have left them in the frames. Having endured well to this time, they now begin to grow—consequently requiring more frequent watering. To prevent the ravages of the aphis, fumigating once again will be of service. A little sulphur carefully blown through them will effectually stay mildew, &c.

Stopping will again be requisite, if abundance of air be given at all times when the weather will permit, and a supply of water adequate to their demand be supplied; ever bearing in mind that the coddling system must produce the very reverse of what you desire.—*Cottage Gardener.*

Forcing Asparagus.—Some time since we took occasion to say that most of our cultivators made a great mistake in planting their Asparagus roots too thick together. The following, from the pen of Mr. Henry Bailey, than whom possibly no superior practical gardener exists in England, taken from the *Cottage Gardener*, carries his recommendation even farther than we do; and, it will be seen, with great success.

With regard to salt, it does not yet seem to be understood in England, that its chief and only use is to impart moisture to the soil. In soils already perfect in that respect, it is of no service, as he states, but in dry soils very useful.

"The only plan to ensure good and really fine Asparagus, is to make what the French call a *specialite* of its culture—to grow it purposely for forcing alone, and never to cut the shoots from the roots intended for this purpose.

"It likes, as a soil, a good loam, with an abundance of manure, with which latter substance it may be made to flourish in ordinary garden soil (if well drained). It should have three years' cultivation; and if this is good, it will in that time have formed magnificent roots, which, if taken up carefully, and planted in a hotbed, will amply repay the trouble by their superior produce. By planting a piece of ground for this purpose every year, and taking up some, there will always be fresh ground occupied with this crop, and ground which has been used in its culture coming in for other crops. A great advantage in one's routine.

"There are, in most of our directories and gardening calendars, remarks on forming Asparagus-beds. In them the directions are given for planting in the month of March, which I have no hesitation in pronouncing the worst month of the whole year. It is then dry to the extreme; and nothing is more tender and susceptable of injury from exposure than these roots. Many years ago, my friend, the late worthy John Wilmot, remarked to me the prevalent error in this respect, adding, 'I don't plant mine till June.' Since I had this hint I have not planted mine till the end of April, or middle of May, in showery weather; when each plant has shoots from four to six inches in height; thus making a little allowance for the exuberance of my friend's imagination, and believing that the safest path was *in media.*

"This practice I have always found to be most satisfactory—never losing a plant. My plants are placed in single rows, one yard from row to row, and half a yard apart in the rows. During the summer the bed is kept hoed and perfectly clean from weeds; and in the autumn receives an annual coat of rotten manure, which is forked in. This process is repeated till the plants are fit for removal; when they are very carefully taken up, keeping the roots covered with damp mats, and scrupulously preserving every fibre of them, for the slightest laceration of these organs is eminently injurious. By attention to these little matters we are enabled to have Asparagus in succession from November till May; supplying, in the month of December, 200 heads a-day for weeks together. When placed in frames for forcing, the roots are covered six inches deep with sifted leaf mould.

"We are not, in a general way, behind our neighbors, the French, in gardening matters; and if we had their climate we should much excel them: but we have, undoubtedly, much to learn from them in forcing Asparagus, as the beautiful bundles of it we

see in Covent Garden Market abundantly testify. I was much surprised in October, 1857, to see, in the shop of M. Jarrin (the Solomon of Paris), magnificent bundles of a beautifully green color, from eighteen inches to two feet long; and this, too, at a period when the plants could securely have gone to rest quietly in our country.

"In the gardens of the Palaces at Versailles and Fontainbleau, the forcing of this vegetable is carried on to a great extent for the supply of the Imperial table. There is abundance of good ground, most extensive ranges of pits, and no end of manure—the dung of two hundred calvary horses being at their disposal. This appears somewhat marvellous, but is nevertheless true; and the gardens seem to be a mass of rich humus. In such a place we may conceive that Asparagus is 'at home.' It is planted in rows three feet six inches apart, and two feet apart in the rows, plant from plant. There it is left, and the next autumn receives another heavy dressing; thus getting only two years' cultivation instead of three—its superior progress being assisted by the climate and the richness of the soil.

"At the time when the autumnal dressing of manure is forked into the beds, a foot of soil is taken from the alleys and superimposed upon the beds; and this operation, performed twice, gives two feet, or more, for receiving hot dung for forcing the plants. Now, they put upon each bed rows of small wooden boxes with lights, which preserve the young and tender grass from inclement weather, while they admit to it abundance of light. Having a considerable depth of soil to come through, the Asparagus is long and white, and is called *Asperges blanches:* the *Asperges vertes* being produced from younger roots forced in a frame.

"It has long been fashionable in gardening periodicals to extol the use of salt as a manure for Asparagus. This I believe to be a mere nostrum, having repeatedly tried it by salting some of my rows, and leaving others unsalted; and then being forced to the conclusion, that there was no appreciable difference between the salted and the unsalted plants. That, if perserved in, it destroys weeds, I admit, and also that it is prejudicial to slugs, &c.; but that it had any effect on the luxuriance of my plants, I flatly deny. But this might have been owing to the soil having in it an abundance of saline matters, from the heavy manuring which it had received for several years.

"There may be soils, which are deficient in some inorganic and saline matters, in which it may assist in building up the vegetable fabric, and to such soils an addition of saline principles may be useful; but to such as are already amply supplied with them, the addition of common salt is certainly not a *sine qua non.*"

Cochin China Oranges.—There are in Cochin China over twenty varieties of oranges, every one different in color, flavor and volume, yet every one wholesome and sweet. One of the best is called *Cam-du-nong*—that is, Sugar Orange. It is odoriferous, of the size of the European Orange, only a little flattened; its flesh reddish yellow. Another and somewhat inferior kind is *Canesen*, or Orange of Paradise; of good quality, flesh and skin pale red, flavor similar to the stimulating acid of the lemon, but milder and less sour.

The best is *Cam-bien*, or King's Orange, so called because it is reserved for the sovereign. There is no prohibition against cultivating it, but it is necessary to hide it; for no sooner is the tree discovered, than the owner has to deliver the crop of it to the sovereign. Shape and size of it are similar to a small European orange; skin green, as thin as the finest piece of silk, and nearly transparent, so that you can see the pink flesh inside through its filaments. When you cut it open, it scents the air, and the taste, says a traveller, is so agreeable, that no fruit can give you so delicious a sensation as the eating of this King's Orange.—*Courier des Etats Unis.*

Keeping Apples and Pears.—Mr. John Cox, a superior British gardener, who obtained the first premium for his fruits at the last March meeting of the British Pomological Society, thus describes how they were kept:

"The pears were laid out singly on the floor of an upper chamber, when gathered, and the windows kept open, so as to afford a thorough ventilation for two months; they were then sorted over, the best selected, and wrapped separately in paper, and placed in layers in deep boxes, the lids of which were laid on, but not fastened. The layers were separated from each other by very dry, old Brakes (*Pleris acquilina*). They were not disturbed until required for use, and have kept better than I could ever keep them before on the shelves of the fruit-room.

"The apples were laid in heaps on the shelves of the fruit-room, and ventilation—to which I ascribe great importance—secured by leaving the door open, as well as a window at the opposite end, until the sweating process was over, when both were partially closed. Nothing more has since been done, except to sort them over frequently, and pick out such as showed signs of decay. The fruit-room is a mere shed at the back of a greenhouse; but its coolness is very much increased by a strong growth of ivy all over the roof."

Frasers' Lea Bridge Nursery, London.—The Messrs. Fraser have been celebrated, for years, among the most successful exhibitors at the Shows. When Mrs. Lawrence carried off the glories of Chiswick in her loaded vans, the Lea Bridge Nursery was the only power in England which could stop her sway; and the system of growth and training for exhibitions has been amply proved here to pay so well, that it has not been relaxed yet, nor is it likely to be in our time. Every plant, from the first crock in the pot, to the last tie for the exhibition, is treated here as if it were to be one of a collection for competition. For bedding out, they have a geometric garden, on grass, on purpose to prove the fashions, and what suits every fashion best. Even the beds are altered every third or fourth year to see which is preferable. There is to be a new set of beds this summer, fresh from the brains of a fashionable designer or landscape gardener—Mr. Davidson, of the Pomological secretaryship. Spring flowers, and herbaceous plants, and rare, out-of-the-way plants, for mixed borders; with every plant and bed, or border, on the systematic principle.

Chinese Azaleas, fruit trees, and orchard-house fruit trees, seem to be Messrs. Frasers' great forte, after Geraniums and exhibition plants. It is in contemplation to hold a special public Show of these Azaleas in this nursery, after the manner of the Camellia Show at the Vauxhall Nursery, and the Hyacinths at Highgate. The Messrs. Fraser are decidedly in favor of not forcing either Rhododendrons or Azaleas, as long as there are kinds enough that will bloom sufficiently early "of themselves," with a little help from cold pits from the end of autumn; and they instanced the *vittata* race of Chinese Azaleas with that of *amœna* and *narcissiflora*, as coming in very early without forcing; also a large bed of fine hybrid Rhododendrons then blooming in the open nursery, that would come in early in January, had they been in pots last autumn, and been removed under some slight shelter at the approach of winter.

They force Guelder Roses, in 32-pots, with from ten to fifteen snow-ball flowers, as good as in the shrubbery. To obtain these, grow them like Moss and Cabbage Roses in every respect; pot them in November, prune them close, plunge them, and grow them twelve months in pots; then force, and count the cost. Three kinds of *Cytisus racemosus*, of which *Alleeana* is preferred by many, *Azalea vittata*, and three or more forms of it, without forcing; *Azalea amœna*, without forcing; *Azalea Fielderii*, the best white Chinese Azalea to force, the best habited and foliaged plant of all the whites; many more kinds of Azaleas—and the cream of a very large collection is here skimmed off on purpose; *Admiration*, a fine white, carnation-fashion; *Ardens*, a beautiful deep orange scarlet; *Bealii*, white, carnation-striped, and coming in early without forcing; *Beauty of Reigate*, one of the most ivory-like of whites; *Benno*, a fine salmon color; *Carnea superba*, a florist's bloom of clear scarlet; *Chelsonii*, orange scarlet, and a profuse bloomer; *Cœlina*, the very best of the purple strain; *Crispiflora*, rosy crimson, frilled on the edges; *Criterion*, the best of the *Exquisita* breed; *Duke of Devonshire*, a large scarlet bloom of good shape; *Eulalie Van Geert*, a fine thing after the manner of *Criterion* and *Exquisita; Fielderii*, the best white to force; *Gladstonesii formosa*, white and Carnation, and Picotee-marked; *Holdfordiana*, one of the very best, a rosy crimson; *Juliana*, orange crimson, with a dark spot on the upper petals—a fine dwarf kind; *Louise Margottin*, ivory-white, large-striped occasionally; *Magnifica alba pleno; Perryana*, the well-known orange scarlet of the shows; *Roi de Leopold*, very fine florists' flower—a crimson; *Semiduplex maculata*, rosy and much spotted; *Semiduplex superba*, rosy crimson, very rich, with dark spots; *Souvenir de l' Exposition*, light crimson, spotted and white edged; *Vittata*, and *Vittata rosea*, *Vittata punctata*, and *Vittata Fortunii*, more or less carnation, and all early bloomers. *Mrs. Fry* and *Vivicans* are two of the highest colored, or crimson, of the whole family.

Deutzia gracilis, and fine standards of the same—no wonder at some people going to the dogs who could see no beauty in standard Deutzias; *Clianthus puniceus*, *Crimson King*, and *Alba multiflora*, forced Geraniums; fine Kalmias; Moss, Cabbage, Perpetual, Fairy Roses; Dielytras; *Berberis Darwinii*, and *Wallichii*—two very much alike out of bloom, and very unlike in bloom; *Wallichii* having greenish-yellow and very peculiarly tinted flowers.—*Cottage Gardener.*

Communications.

WEATHERED & CHEREVOY'S BOILER.

BY B., BROOKLYN, N. Y.

In your notice of Weathered & Cherevoy's Boiler in the July number, I think you overlook the fact that the outside and inside cones of the boiler are (to be) full of water from *top to bottom*. In that case, all the fire in Mount Ætna could not split it, because the expansion of the metal is prevented by the water.

Who ever knew their pots to crack by heat, if kept full of water while on the fire? I have seen this boiler in use, and know that it presents double as much surface to the fire, and *nearer to the fire*, than any other boiler of the same size known to me.

This last feature is valuable, from the fact that the relative effect of heat upon objects is in the well known inverse ratio of the squares of their distances from the fire. Yours, &c., B.

[We are pleased to receive the above correction from B., who is an amateur cultivator, and well able to judge of the merits of the boilers in question. We did not notice, what the cuts that have since appeared in our advertising columns fully explain, that the outer, as well as the inner, shells are filled with water, and are, in fact, part of the boiler. Of course, they cannot crack under such circumstances.—Ed.]

NOTES ON RASPBERRIES.

BY HORTUS, WEST CHESTER, PA.

I have been cultivating about twelve or fifteen kinds of raspberries for three or four years, and have now, I think, arrived at a just conclusion in regard to the best so far.

The Orange, with us, is all that has been claimed for it, with the exception of being rather too soft for carrying to market in comparison with some others. The Hudson River Antwerp, the greatest bearer, but small on an average. Fastolf very fine; not prolific enough for general purposes. Rivers' Monthly bears a good crop of fine berries *once* a year, but obstinately refuses to repeat the operation in the fall. Thunderer very large and excellent, but not enough of them to make it worth planting. Col. Wilder is a poor, worthless little variety. Cushing is fine. I would recommend it highly. Franconia is very large, and of first-rate flavor, but from some unaccountable cause, will gradually work out in a short time. V. P. French is another of Dr. Brinckle's choice kinds, well worth planting. Rivers' Antwerp and Knevett's Giant so much resemble Franconia, that it would take a better pomologist than your humble servant to see the difference. And now for our *pet*—the Northumberland Fill-basket; a regular sentence to pronounce, but well deserving of it. I think I have never seen such a crop of mammoth berries before, and all our family, as well as several friends that saw it in fruit, pronounced it unexcelled.

The Belle de Fontenay is unusually large and fine with us, and bears nearly (I might say truthfully, quite) as large crops in the fall as some of the foregoing kinds do in their regular season. Catawissa is gradually growing into our good graces, although not equal to the last.

The Allen I have never fruited, having always considered it an old variety long since discarded, and am not yet satisfied, though some of my neighbors are praising it highly.

Well, I have written a pretty long letter, considering that when I sat down I only expected to have a little cosy chat with a much respected friend, and I can assure you it is not written for publication, but for your own perusal. If there are any little extracts at any time that you think might be of use, you are perfectly at liberty to make use of them.

[The above extracts from a friend's letter our readers will peruse with interest. It is very interesting to find out what particular kinds of fruit do best in different localities. In this district, for instance, the Northumberland Fill-basket, though it proved an enormous bearer, was deficient in flavor; and as to Col. Wilder, it was not far, certainly, from being one of the best. As for the Allen, we are daily receiving good accounts of it from our best fruit-growers. If it is an old *discarded* kind, we think it is like some of the fashions, being resurrected with great *eclat*.—Ed.]

Foreign Correspondence.

From our English Correspondent.

THE SHEFFIELD BOTANICAL GARDENS.

These fine Gardens cover over 17 acres, and are beautifully situated at the west end of the town, and about two miles from the centre of traffic. The site is well adapted for the purpose, and being on a considerable elevation above the town, (which is famous for the large quantities of smoke produced through its hardware trades,) the view obtained is very charming. The land is abundantly diversified with natural undulations, which have been taken advantage of by the gentleman (Mr. Marnock) who at that time laid out the grounds, and soon after became curator and creditably filled that office for several years.

The entrance is from one of the principal thoroughfares. The gateway (for visitors and ticket-holders) is a very handsome and noble entrance. On the right the gate-keeper has his apartments, his duty being to see that the visitors present the accredited ticket for admission, and to take down the names of parties of distinction or strangers from a distance. To the left of this is the Committee-room, a fine, large place, where the business of the Garden is discussed, and plans laid, and projects dispelled or entertained. To the left of this room stands the dwelling-house of the Curator, a very handsome Gothic structure, replete with every convenience inside and ornamented on the external. At the front of this cottage, and bordering one of the principal walks, is a neatly-designed flower-garden, cut out of the grass, where the plants are "bedded out" on the massing system, and where Verbenas, Scarlet Geraniums, Calceolarias, and many variegated plants are effectively grouped together.

Following this walk to its termination, we arrive at another lodge, which forms a very convenient outlet, or inlet, from another part of the town. In passing down this walk, we find a place called the "Maze," or "Puzzle Garden,"—a place which, from the difficulty of egress, affords a considerable source of amusement. There is a small pond, with a few water-fowls upon it. There is also a "Bear-pit," containing two very fine animals. However, these latter, and I believe also the water-fowls, are to be discarded, and the place devoted entirely to botanical, or at least horticultural, pursuits. Some large plantations of evergreens are well introduced, and many small retreats are formed, and are found useful for the purpose of accommodating pic-nics and select parties with a quiet seat. On gala days the Gardens are thrown open to the public, who pay 6*d.* each for admission. The Committee limit these days to about six in each year. This precaution is found to answer very well, inasmuch as too many of such days would interfere with the pleasure of the regular ticket-holders; and also, although galas are found very beneficial to the funds of the institution, they are not *all* gain, some damage (which must be repaired) always occurring where so many thousands meet together for amusement. The Temperance Society, the Mechanics' Institute, the Horticultural Society and the Gardens generally monopolize these benefits; and as they are generally arranged to happen on the orthodox holidays, and as they hold out both music and dancing, they attract the largest meetings of the best-behaved and most orderly masses of people that are brought together under any other circumstance in this neighborhood. The unavoidable trampling of the grass in dancing when the ground is wet, forms one of the heaviest items of loss.

A large glass house, called the "Crystal Palace," has been erected lately, and is generally used as a dancing-saloon in wet weather, or as an accommodation or refreshment room; also for the Exhibitions of the Horticultural Society, and is fitted up with convenience for cooking tea, &c. The walks, which are plentiful enough, are all asphalted, and are sprinkled plentifully with the beautiful white crystal called the "Derbyshire Spar." They look extremely clean and tidy, and are always free from weeds, which cannot grow on this hard material.

On entering by the lodge or principal entrance, and taking the turn to the right instead of the one to the left, (which we have been describing,) on rounding a sharp turn, we come at once upon the view of the range of glass, and which is a very fine and noble group of houses, facing the broad walk and "Promenade-ground," and indeed the principal view and best one which these Gardens afford.

The first house is the "Show House," and is devoted generally to the accommodation or reception of specimen plants, but more particularly for flowers. In the winter this place is filled with Chrysanthemums and Camellias; in the spring with forced Azaleas, Rhododendrons, &c.; in the summer with Fuchsias, Geraniums, Amarylis, &c. In fact, this is the receptacle where all Flora's favorites are collected together; and, arranged by the skilful and artistic hand of the present Curator, (Mr. John Ewing,) they form a mass of collected beauty so striking, that the best effects are produced upon the visitors; and many of the plants which were before hardly noticed, are now brought forth prominently and not according to their respective merits, and put forth their claims to the many visitors, who gaze delightedly upon them.

I should have stated that the houses are all connected together, and the visitors can pass from one place into another, without the inconvenience sometimes experienced of passing out of very hot houses into the cold outside.

In passing from the Show House, we enter a greenhouse well filled with such plants as are commonly found in such places. Then the Palm House and Stove. These are fine houses, and contain some of the finest plants in the country, mostly in good health, and are much admired. There is also a Heath House, with some good varieties of that most charming plant, with Epacrises, Daphnes, Acacias, &c. We might particularize some noble specimens, and would gladly do so, but there are so many, that one feels some difficulty in the selection, and would merely say that these Gardens are as well worth visiting as any gardens of a similar organization in the kingdom.

The Victoria or Aquatic House is the last house in the range, and in its style of architecture corresponds with the Show House at the opposite end. Here the *Victoria regia* was sending forth its magnificent leaves, proudly maintaining its supremacy. Round this Queen of the Waters was growing *Nymphæa cærulea*, *N. dentata*, *Nymphæa rubra* and *Devoniana;* these were beautifully in bloom, and mixed with hundreds of blooms of the very pretty *Limnocharis.* These formed a beautiful bordering around the *Victoria;* and, together with a considerable collection of variegated-foliaged plants very tastefully introduced, we never saw an aquatic house half so well arranged as this one. We are glad to be able to state that this creditable institution is likely to continue permanent, and is becoming more than ever the *fashionable* and *select promenade* of the wealthy, while its beauties are valued at no small price by thousands in an humbler sphere.

[Public parks, pleasure-grounds and gardens are fast becoming "institutions" with us. The day is not far distant when every American town will rank as a very "one-horse affair" without one. Every thing relating to their formation and management abroad is, therefore, particularly interesting at this time, and our correspondent's account of the Sheffield Garden comes peculiarly seasonable.—Ed.]

Horticultural Societies.

PENNSYLVANIA STATE AGRICULTURAL SOCIETY.

Extrac from Premium List for the Exhibition to be held in Philadelphia September 27, 28, 29, and 30.

FOR FRUIT.

Apples—Best 6 Fall varieties, 5 each, First $4; Second $2; Third $2.
" " 3 Winter " " First $3; Second $2; Third $1.
For best and largest collection, Diploma and.....$5
Second best " " 5
Third best " " 4
Blackberries—Best pint Lawton or New Rochelle..... 2

Also premiums for Figs, Lemons, Melons, Nectarines, Oranges, Pears, Peaches, Prunes, Plums, Quinces, Raspberries, Grapes, and Wine. Also for all the varieties of Vegetables.

FLOWERS, PLANTS, AND DESIGNS.

Premiums will be awarded for the following articles: Achimenes, Asters, Dahlias, Fuchsias, Dianthus, Heliotropes, Geraniums and Pelargoniums, Specimen Plants, Roses, Lilium lancifolium, Verbenas, Tuberoses, Cut Flowers, Baskets, Bouquets, Vases.

Best Collection of Plants from a Nurseryman	$12
Second do do do do	10
Third do do do do	8
Fourth do do do do	6
Best Amateur's, superior to the nurseryman's	10
Second do do do do	10
Third do do do do	5
Fourth do do do do	3
Best Decoration	8
Second do	5
Third do	3
Best Design	8
Second do	4

Any further information may be obtained of William Southwood, No. 21 North Sixth Street, Philadelphia, who has been appointed Superintendent of the Horticultural Department, and where a full list of the premiums may be seen.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The last meeting of the Horticultural Society was a delightful affair, and was considered one of the most interesting August meetings ever held. The fruit tables, especially, literally groaned under the weight of the contributions, and attested, by the crowd they attracted around them, the great point of interest they possessed. The hothouse Grapes from numerous contributors, were particularly well grown, though there were but few kinds not often seen on the Society's tables. Gros noir du Cantal, a somewhat hardy variety, Charlesworth Tokay, and Muscat Lunel were amongst the most uncommon.

A Nectarine, somewhat resembling the Elruge,—the Duc de Tellier,—though not new, we do not recollect seeing here before. It is a very showy kind.

Amongst the very fine vegetables exhibited there was little new. The Fegee Tomato, now becoming generally known for its superior excellence, was freely brought out.

In the way of flowers, a very fine specimen of Scioda calyx Warcewiczii, with twenty spikes of flowers, was quite a gem. It is allied to Achimenes. A new Roupallia was also exhibited. It is a stove plant, with something the habit of an Echites. The fine Begonias before noticed, were again exhibited in beautiful condition. Eucharis Amazonica, a very sweet white-flowered subaquatic, resembling a Hemorocallis in character, was exhibited for the first time.

The Society, true to its Quaker origin, seldom indulges in lingual exercise at its meetings. They have hitherto been content to get up really meritorious exhibitions, and let the articles speak for themselves. On this occasion, however, they departed from the regular solemnity of the occasion by an animated discussion on the question, whether "two bouquets made a pair," and it gravely decided that such was really the fact. A competitor for the prize of the best pair of hand-bouquets, exhibited one white, or what is called a bridal bouquet, and the other a bouquet made of gay colored flowers. The majority of the Committee decided, that independently of the merits, superior or indifferent, of the bouquets themselves, odd characters were not in correct taste in the generally received idea of a "pair" of hand-bouquets; though, had the schedule called for the "best two," or the "best three" bouquets, they would have decided differently. The minority thought otherwise, hence the appeal to the Society itself.

On the whole, the brilliancy and spirit exhibited at this meeting augurs well for the success of the Annual Meeting, which, as will be seen by the official advertisement in the proper column, will be held on the 20th and 21st of September. We have very little doubt but that it will be a very fine affair, and trust that all our horticulturists through the State will contribute what they can towards its interest.

[OFFICIAL REPORT.]

Last evening was the regular exhibition night and monthly meeting of this Society. The only important business feature was the passage of a resolution that the Annual Exhibition, on September 20, shall also be kept open upon the day following.

The gem of last night's display consisted of two new plants, for the first time shown, produced from the conservatory of Mr. B. F. Fahnestock. Of those, one, called a Rupella grata, was pronounced one of the most beautiful flowering plants ever exhibited. The Rupella bears an exquisite perfume. The other Begonias, with variegated leaves, are more beautiful than similar plants now known in floriculture.

From Mr. James Dundas, a Victoria Regia flower, of extraordinary size, was exhibited; while from Thomas Meehan, were exhibited Dahlias of every imaginary color, blue excepted.—As a blue Dahlia is something which floriculturists have been for the last half century trying to produce, we shall expect to see one about the same time that a formula is given for squaring the circle, or getting up perpetual motion. From the hothouses of Dr. Rush, James Dundas, Esq., Mr. D. Rodney King, and several other regular contributors, a fine variety of growing plants aided in imparting attractiveness to the hall. We missed the usually beautiful offerings of Mrs. Hutchinson, a lady who evinces most laudable enthusiasm in pursuing the avocation of Mother Eve, anterior to her unfortunate curiosity respecting that apple in the orchard of Paradise. In cut flowers, baskets, and bouquets, a handsome display was made.

Samuel H. Simpson, gardener to Alexander Brown, Esq., of Holmesburg, exhibited a quantity of colossal Nectarines, of the Duc de Tellier variety, that were awarded a first premium. Jas. Mattheson, gardener to Edward Yarnall, exhibited Grapes that are something marvelious. There were six varieties taken from vines two and a half years old, of which no one bunch weighed less than four pounds. One cluster of Black Hamburg alone weighed four and a quarter pounds.

In vegetables a show was made, to which too much credit cannot be given. Anthony Felton, gardener to Mr. Henry Duhring, covered a table with large Pumpkins, huge Egg-plants, Tomatoes, weighing a pound and a half each, and a great variety of culinary plants, going to show that Mr. Duhring knows what is good, and that his gardener knows how to cultivate them.

Rev. J. M. Richards through John Cook, his gardener, at the Falls of Schuylkill, exhibited Egg-plants of 14 inches diameter, and Tomatoes of the Fegee variety, of immense size and superior quality.

From the garden of J. E. Mitchell, Esq., of Chestnut Hill, were shown huge Celery plants, mammoth Egg-plants, and corpulent Tomatoes, together with some immensely overgrown Peppers.

The premiums awarded are as follows:

Grapes—Three bunches, James Matheson, gardener to E. Yarnall, Black Hamburg. Second best, William Grassie, Frankondale. White, John Lauder, Muscat of Lunelle. Second best, William Grassie, White Frontignac.

Nectarines—R. Balleger, gardener to L. Mont, Bond.

Plums—George W. Earl, Green Gage. Second best, Mark Hill, gardener to M. W. Baldwin, Orleans.

Peaches—J. B. Baxter, Seedling.

Pears—J. B. Baxter and S. W. Noble; these were not according to the requirements of schedule.

Apples—J. Perkins.

Blackberries—M. Hill, Lawton. Second best, John Gray, Lawton.

The Committee recommended a special premium of $10 to Jas. Matheson for an unequalled display of Grapes; and to a Raspberry—the Merveille des Quatre Saisons—a special premium of $1. They favorably notice a seedling Apple very much resembling Early Margaret, exhibited by Thomas Meehan.

They also call the attention of the Society to a fine seedling Peach from the garden of E. W. Keyser; also to a beautiful collection of Pears by Robert Buist; also a fine Pine-apple, in pot, for which they recommended a premium of $1 to Mark Hill.

Phlox, twelve varieties, R. Buist, best, $2. Collections, ten plants, John Pollock, best, $5; do., six plants, M. Hegarty, best. Specimens, one plant, James Eadie, best, $2; John Pollock, second best, $1; Ch. H. Miller, gardener to D. R. King, two plants, two varieties, best, $2; James Eadie, second best, $1; new plants, a premium of $3 to No. 5, for Rupella grata, one of the finest novelties on exhibition; a premium of $1 for Eucharis Amazonica; table designs, J. J. Habermehl, best, $3; R. Kilvington, wreath, second best, $2; baskets, W. H. Smith, from H. A. Dreer, best, $2, bouquets, J. J. Habermehl, best, $3; R. Kilvington, second best. $1.

A special premium of $1 to Charles E. Sutherland, gardener to B. A. Fahnestock, for Begonia rex. Very fine specimen

A special premium of $2 to J. B. Habermehl, for fine collection of China Aster.

A special premium of $1 to John Pollock, for collection of orchidas.

A special premium of $1 to G. W. Earl, for collection of Gladiolus.

A special premium of $1 to Thomas Meehan, for collection of Dahlias.

Attention is called to a collection of Amaranthus gloria.

Particular attention is called to a flower of Victoria regia.

Also to Tritoma uvaria.

Lettuce, best 6 heads, A. Felton, gardener to H. Duhring. Cabbage, best 6 heads, do. Egg-plants, best 6 specimens, John Cook, gardener to Rev. J. M. Richards; do. second best do., W. H. Smith, for H. A. Dreer. Peas, best half peck, A. Felton. Tomatoes, best half peck, John Cook.

A special premium of $1 to A. Felton, for a fine display of Long Blood Beets.

A premium of $1 to J. E. Mitchell, for a lot of superior Peppers.

Dishes of very superior Tomatoes, exhibited by A. Felton, Mark Hill, James Jones, James Thomas, gardener to J. B. Baxter, and John Landis.

A special premium of $1 to A. Felton, for Citron Melons.

Dr. Alfred L. Kennedy read some extracts from a letter which he had received from his friend, Hon. Charles R. Buckalew, United States Minister residing in Quito, Ecuador. The letter contained seeds of several interesting Andine plants collected on the eastern base of Mt. Pichincha, where, although within a dozen miles of the equator, the climate, on account of the great elevation, is that of the temperate zones. During eight months the thermometer had ranged between 48 and 69 degrees, or only 21 degrees. The seeds were those of Melastoma, a firm, hardy evergreen shrub, of from four to five feet, with a very beautiful and lustrous leaf, small white flowers, and edible berries. The Bomaria Caldasiana, synonymo Alstroemeria Caldasiana, a climbing plant of six to ten feet, both curious and beautiful. It produces clusters of showy orange-colored flowers, followed by singular pods, of triangular form, which burst and present bunches of brilliant red berries.—The Calceolaria lavandulæfolia, is an herbaceous flowering plant of about two feet, with delicate yellow and white flowers.

HARTFORD (CONN.) HORTICULTURAL SOCIETY.

At the July Exhibition the following premiums were awarded:

Cherries—1st Black Eagle, Dr. Jackson	$1 00
2d Coe's Transparent, Edward Bolles	1 00
Disc. Black Tartarian, T. K. Brace, Jr.	50
Raspberries—collection (Russell's Red, White Antwerp, Brinkle's Orange), Dr. G. W. Russell	2 00
Flowers—Best table bouquet, James Boyes	2 00
Best hand bouquet, Miss M. G. Wells, Wethersfield	1 00
Vegetables—Best Potatoes, A. R. Skinner	50
Best collection Vegetables, P. Buckley	1 00

The Black Eagle Cherries appear to have borne the winter or the spring (whichever may be at fault) better than any other variety. The trees from which those on exhibition were produced are represented as unusually full this year, and, in fact, the fruit was a little under size from this cause alone. Coe's Transparent has borne tolerably, notwithstanding the disadvantageous season. This fact seems to give these two cherries, which in our view as to quality are deserving the first rank, an advantage over all others. The Tartarians shown were of large size and excellent, but we think stand second both in flavor and hardiness.

Russell's Red Raspberry surprised us with its great excellence. It is a noble berry—certainly second to none, all things considered. We shall try our hand at making a characteristic drawing, and if successful, shall have a cut made. Dr. Russell showed the fruit in quantity, and several branches loaded with from nine to thirteen berries of large size and uniform ripeness. We believe this is a peculiarity of this berry, that all the fruit upon the bearing branchlets ripen at once, though it has a long season. The berry is as large, and in shape and color quite like the Red Antwerp, in flavor a little brisker, though perhaps a little less delicate, the plants perfectly hardy, and growing very vigorously.—*Homestead.*

CHICAGO GARDENER'S SOCIETY.

A communication was read from President Ellsworth of the State Society, inviting the gardeners to exhibit there, and assuring them that every facility would be afforded them—plants etc., would be carried to and from the fair grounds free of expense, and themselves at half price.

The following preamble and resolutions were thereupon offered and adopted:

Whereas, The Chicago Gardener's Society has received from Lewis Ellsworth, Esq., President of the State Agricultural Society, a kind and cordial invitation to exhibit at the State Fair at Freeport, and his assurance of a liberal provision for such exhibition as we may make, therefore

Resolved, That we will make all effort consistent with home duties to contribute to the floral department of said exhibition.

Resolved, That a committee of three be appointed to represent this society at the State Fair, and take charge of such flowers and plants as the members of the society may contribute to the exhibition.

Resolved, That we recommend that as many as possible of the members of this society attend the State Fair at Freeport.

The following gentlemen were appointed a committee to represent the society at the State Fair: D. Bonnard, Richard Reese and Robert Gow.

The committee also reported the result of their conference with the superintendent of the National Fair, and recommended the adoption of the propositions made, and that the society exhibit as a body at the National Fair the 12th of September. On motion, the report of the committee was accepted and adopted, and the committee continued until the next regular meeting of the society. The following resolutions was also adopted:

Resolved, That in consequence of the very liberal propositions received from the Superintendent of the National Fair, and the facilities proffered us for making a creditable exhibition, we will use all reasonable effort to make a floral display at the National Fair worthy the Garden City.

Adjourned to meet August 6th at 7½ P. M.—*Emery's Journal and Prairie Farmer.*

WAUKEGAN HORTICULTURAL SOCIETY.

Illinois seems to be waking up in horticultural matters, and our older states must look out for their laurels. From the *Waukegan Gazette*, we gather that their recent exhibition has been every way a great success. It says of it, the exhibition did great credit to Waukegan and the good taste of those of her citizens who contributed to this, the first of her Horticultural Exhibitions since 1853. Such demonstrations as these, where our people meet together in a friendly way to exhibit to one another the result of their labors and experiments in this beautiful art of Horticulture, are just what has given to Waukegan the enviable name she enjoys of being ahead of all others in the West, in point of good taste in the laying out and keeping up such beautiful gardens and cultivating such choice collections of flowers and fruits. Years ago this spirit was inaugurated here by these same kind of exhibitions and the desire to improve and beautify, each man his little homestead, was fully engrafted into the compositions of our people, and although the germ which was sprouted in early times, has continued to grow, as is evident by the many pleasant spots which surround us on every side, yet for some years the organized society which gave life to this spirit in the first instance, was allowed to die out, and only now has been resuscitated; the exhibition we are about to speak of being the first under the new organization.

GENESEE VALLEY HORTICULTURAL SOCIETY.

The June Exhibition of the Genesee Valley Horticultural Society was held on the 22d. The show was not large, but the attendance of members and citizens interested in horticulture quite good. The following are reports of Committees:

REPORT OF COMMITTEE ON FLOWERS.

The Committee on Flowers regret to state that their labors were exceedingly light. Although the premium list was arranged to accommodate amateurs, who have but few flowers to show, this class seem slow to accept the advantages offered them. A. Frost & Co. made a fine show of herbaceous plants, Roses, Hollyhocks, Phloxes, etc., and also exhibited several bouquets.

C. W. Seeley exhibited Verbenas and flowers of hardy shrubs.

W. King made a good exhibition of Dahlias for the season; also, of Picotees, Hollyhocks, etc.

Selah Matthews presented a fine floral ornament—not for competition.

Mrs. E. K. Blythe and Mrs. Alfred Fitch also presented floral ornaments in excellent taste.

The Premiums awarded were as follows:

Best Bouquets—A. Frost & Co.
Best Floral Ornaments—Mrs. E. K. Blythe.
Hardy Shrubs—Best twelve Cut Flowers—A. Frost & Co.
Verbenas—Best six to C. W. Seeley, for Blue Defiance, Mrs. Hollford, Madam Viard, Iliawatha, Giant de Battaile, and Brilliant de Valse.
Petunias—Best six to A. Frost & Co., for Glory of America, Great Western, Jupiter, Diana, Juno, and Amazon.
Herbaceous Plants—Best twelve cut flowers, A. Frost & Co.
Dahlias—For a collection of twenty varieties, to Mr. King.

JAMES VICK, Chairman.

REPORT OF FRUIT COMMITTEE.

Gooseberries—Best six sorts, to C. W. Seeley.

Currants—Best two Red Varieties, to A. Frost & Co., for Fine Red Dutch and victoria. Ditto, best one quart, to A. Frost & Co., for White Grape.

Raspberries—Best four varieties, to H. E. Hooker & Co.; best quart of Red Raspberries; do., to H. E. Hooker & Co. for Hudson River Red Antwerp.

Fine specimens of New Rochelle Blackberry were shown by S. Matthews.

Early Harvest Apples from J. O. Bloss.

Red Astrachan Apples from E. S. Hayward.

C. P. Bissell and Salter presented a collection of Gooseberries, Currants, Blackberries, and Apples, but they were too late for competition, and have not therefore shared in the awards—the specimens were fine without exception, and showed skill in cultivation which is entitled to commendation.

H. E. HOOKER, Chairman.

[*Rural New Yorker.*

FRANKFORD WORKINGMEN'S HORTICULTURAL SOCIETY.

I herewith send you a report of an Onion Exhibition held on the 1st inst. We had a goodly number of exhibitors, not only of Onions, but other vegetables and fruits.

After the tables, etc., had been arranged, we had a large crowd of visitors, (as it created an excitement in our immediate neighborhood,) who came to see, and were all highly pleased with the result.

The judges awarded the following as winners of the prizes for Onions:

White or Silver Skinned, to Wm. Fairhurst, first prize, a mantel time-piece, valued at $1.75; to Charles Broadhurst, for second best, two works on gardening, valued at $1. For Yellow Strasburgh—to John Smith first prize, a metal tea-pot, valued at $1.87; to Orland Lomas, for second best, one book, valued at $1. For Seedlings—First prize to James Trelfull; second to Charles Broadhurst, valued at 50 cents.

Special premiums were also awarded to Thomas Broadhurst for six different kinds of Pears from one tree, and best collection of Tomatoes; to C. Broadhurst, for best string of Onions and Potatoes, to Jabez Billsbrough, for best Beets; to Orland Lomas, for best Cucumbers.

All were highly pleased with the exhibition, and are determined to enlarge our Society, and in furtherance of that, we have an account of our exhibition in the local papers, and of our intended one of Celery in November.

THOMAS HARGREAVE, Secretary.

Frankford, August 10th, 1859.

KINGSTON HORTICULTURAL EXHIBITION, Upper Canada,

Will be held on the 28th, 29th, and 30th of September.

HORTICULTURAL SOCIETIES are springing up numerously, and are very popular in California. The *California Culturist* shows that the fruit and flowers at the State Fair at Lameda was quite a success, and reports the successful formation of Societies at Sonoma, Napa, and other places.

WE have not received any report of either the Cincinnati or Massachusetts Horticultural Societies for the last month. The reports we have already given of them have been obtained by our own efforts through private friends. Desirous of seconding the objects of these institutions in rendering honor to exhibitors by the publication of their successes, as well as keeping the public posted up as to horticultural progress, we are ready to publish them without any expense to the Societies, if they will furnish us with the necessary reports.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. OCTOBER 1, 1859. VOL. I.---NO. 10.

CALENDAR.

10th Month, October, 1859, 31 Days.

Moon's Phases		Boston.		Philad'a.		Baltimore		Charl'ton	
	d	h m		h m		h m		h m	
First Quarter.	3	3.48 ev.		3.31 eve.		3.25 eve.		3.13 eve	
Full.	11	7.07 ev.		6.50 eve.		6.44 eve.		6.32 eve	
Last Quarter.	19	0.39 mo		0.42 mor		0.36 mor		0.24 mo.	
New.	25	7.48 ev.		7.31 eve.		7.23 eve.		7.13 eve	
Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	3	5.58	5.40	5.58	5.41	5.58	5.41	5.55	5.43
	11	6.06	5.28	6.06	5.28	6 06	5.30	6.00	5.34
	19	6.15	5.14	6.14	5.15	6.14	5.17	6.06	5.24
	25	6.23	5 05	6.21	5.06	6.20	5.10	6.11	5.18

This Calendar will answer for the sun at any place in the same latitude.

Hints for October.

FLOWER GARDEN & PLEASURE GROUND.

THE season for carrying into effect alterations and improvements in this department has arrived, and the work will be pushed on with vigor to completion before the advent of frost. It is, perhaps, one of the best seasons for sowing grass seed for lawn purposes. Where a lawn is to be made on an extensive scale, it is generally effected by seeding. Sodding makes the best job where good turf can be had, as there is a better choice of grass, and moreover the plague of weeds, which is so annoying in seeded lawns, is thus avoided. It is very important that the soil intended to be laid down as a lawn, should be deep and rich. It should be subsoiled at least twenty inches deep. In a shallow soil the grass will not stay green on a hot, dry summer's day. Salt has been employed to mix with the soil in its preparation for grass, with good effect. Bone-dust, or any other fertilizer of a permanent nature, is also of great advantage. Coarse stable-manure is, however, very beneficial where other ingredients are not easily obtainable. In laying sod, much time is often wasted in useless cutting and fitting of the pieces. Where a piece of grass can be cut up without much sorting for the sods, the whole plot should be marked off into twelve-inch squares by a line. For marking out these squares, a stick, curved at the end like that employed by boys in "shinny," should be obtained, and in the end that curves a small coulter set, projecting about one inch below the stick; the other end is formed into a T handle, and the operator pushes the tool before him along the face of the extended line, and can thus mark out as fast as he can walk. We have often blushed for the "science" of gardening, to see the waste of muscle expended on marking out with the spade. A good sharp spade is the best implement to lift the sod with, which should either be thrown from the spade directly into square compact heaps, or into a cart at once. On unloading, instead of being carefully handled like a lot of window-panes,—one by one,—the whole should be easily "dumped" from the cart. A few will get injured, of course; but a mere trifle in value, compared to the labor saved. In getting ready for laying, the ground should be roughly raked on the surface, just so as to make it level and free from stones. Coarse sand, if it can be easily obtained, should then be scattered about one-eighth of an inch over the surface, and the square-cut sod laid down. It is not necessary to have each sod packed tightly against each other; so long as they nearly touch at the principal points, it is sufficient. An eighth of an inch of space is of no consequence. After it has been all laid, it should be beaten with a block of wood, into which, at an acute angle, a handle has been fixed. Sand may, if the sod is very tough, be first scattered over, so as to run into any crevices that are not likely to get easily closed. After being beaten, the first opportunity should be watched to roll it after a rain.

In sowing with seed, it is best at this season to sow a little rye with it. Being coarser than the grass seed, it shades somewhat from the sun in winter, and prevents the throwing out of the grass. The best kind of grass for lawns is a mooted question, as one kind succeeds much better in some parts than in others of this great continent. Here, and northward, Rye Grass is popular. Mixed grasses have this advantage, that if one of its kinds does not do well, others may; but it is likely to give a very spotted and uneven appearance.

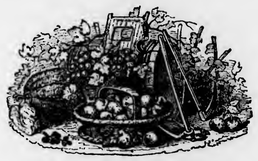
In our preceding numbers we have given directions for growing Dutch bulbs. We commend these remarks again for perusal. Few things have a gayer appearance, or give a more joyous look to a flower-garden in early spring, than their early blossoms. Anemones and Ranunculuses seldom do very well under our neglectful systems of cultivation; but Hyacinths, Tulips, Crocuses, Narcissus, Jonquils, Crown Imperials, Iris and some others, do with very little care. The Snowdrop does not do very well, but is more easily grown than the Ranunculus. The Lilies should not be forgotten. They are amongst the most beautiful of border flowers, and should be planted now.

The various kinds of *Lilium japonicum* and *L. lancifolium* are seldom seen out of greenhouses; yet they are quite hardy, and, indeed, perfect their beautiful and fragrant blossoms better in the open border than when under pot culture.

Gladiolus, Tuberoses, Tigridias, and most other summer-blooming bulbs should be taken up as soon as the first white frost has injured the foliage, as they are easily spoiled. The same applies to Dahlias. The names of the latter should be firmly attached with copper wire to the roots. It is annoying to have a fine kind with a doubtful name. Most kinds of hardy annuals flower much earlier and finer in the spring, if sown now; and some kinds, as Hollyhocks, Wallflowers, Brompton stocks, &c., will not flower next year if deferred sowing till spring. Choose a sheltered border, and let the soil be light and rich. Pansies—Johnny-jump-ups, as the young ladies say—should also be sown now, as also should Daisies, Polyanthuses and Auriculas. These are best sown in boxes or pans, and have the shelter of a frame if it is at command.

We have given, in a back number, some directions for growing Neapolitan Violets. We hope our readers have prepared some as directed. Few things are more pleasing than these modest flowers, with their grateful fragrance, blooming so easily through the whole winter, when little else can be had. The sashes should be left off as long as possible; but the details given have been so full, that we need not repeat them here.

The festival of Chrysanthemums is approaching. Few things give a gayer appearance to the pleasure-ground at this season than they do, and every care that can be afforded them will be well deserved.



FRUIT GARDEN.

THE Raspberry and the Blackberry do particularly well when planted in the fall, provided the canes are afterwards bent down and covered with soil. Very few failures occur when so planted, in comparison with spring planted ones. Brinckle's Orange and the different kinds of Antwerp—of which the Allen, Franconia, and Hudson River are well known—are considered the hardiest. But even these are improved by being bent down and covered with soil. They may be pruned before covering. All the weaker shoots should be thinned out, and those left for bearing next season may be shortened about one-third.

Strawberry beds set out last month, should have a dressing of old decayed tan or stable-manure spread over and about them, as a protective through the winter. This is not done through any want of hardiness in the Strawberry; but it prevents the freezing and thawing continually, by which the plants are drawn out of the soil and the roots exposed. When covered, if the frost penetrates the coat, the soil stays frozen till the warm spring rains act on it. Old beds that have become matted with plants, should be thinned out, if not already done, and a covering of manure also given them, so that the fall rains may take fertilizing matter into the soil, to be ready in an available form for the spring use of the plant.

VEGETABLE GARDEN.

LETTUCES sown last month will now be large enough to set out for permanent growth. A common hotbed frame, set on a bed of leaves or spent stable-manure, will enable one to enjoy delicious salad all through the latter part of the winter, where sufficient protection against severe frosts can be secured. In this division of our Hints, it is more of an object to preserve them through the winter for the purpose of setting out in the open air in spring. In the more Southern States this can be readily effected by their being set out in the open air in a sheltered place. In even the Middle States they often do very well by having the ground thrown into ridges about six inches deep, running east and west, and the plants set out on the northern sides. They have a little straw thrown over them in severe weather, and get through the winter admirably, heading early in spring. The Early York Cabbage is extensively grown the same way. Where the climate is too severe to allow of this, they must be put under cover of shutters, as before described in our Hints.

Broccoli and Endive may be taken up with balls of earth and set in cool cellars closely together, and they will grow sufficiently—the former to produce good heads, and the latter to blanch beautifully all through the winter.

Asparagus beds should be cleaned, by having the old stems cut off and the soils from the alley way dug out and thrown over the beds. It keeps the frost from the roots, and thus permits them to grow and lay up matter all winter for next spring's growth. Very early in spring the soil should be raked back into the alleys, so as to leave the roots but a few inches under the soil, as the nearer they are then to the sun's rays, the earlier will the crop be.

Celery must have continued attention to blanching as it grows, care being exercised to prevent the soil from entering the heart. Where very fine results are desired, the plants should be protected from early severe frosts, until they become constant, so as to enable the plants to grow, without injury, as long as possible.

Roots of most kinds, such as Carrots, Beets, &c., should be taken up before the frost is severe. They all keep best packed in sand in the open air, but it is too inconvenient to get at them in winter. Hence cellars are employed to preserve them in. Cellars for this purpose should be cool, say with a temperature of about 45°, and not at all dry. It is not meant that it should be damp, as the roots will become rotten, but it must be moist enough to prevent shrivelling.

Cabbages can be preserved in such a cellar, though most prefer them in the open air. One way is to pack them closely together with their roots uppermost, and then cover them with soil, on which straw or litter is thrown to keep them from freezing. By being packed this way, the water cannot get into the hearts, which is one of the chief causes of their rotting. Where plenty of boards can be had, they may be packed with their heads uppermost, and the rain kept off by the material.

HOT AND GREENHOUSE.

If there be any tender plants yet growing in the open border that it is desirable to re-pot and keep in good order through the winter, no time should be lost in taking them up. Such plants are frequently lost or injured by bad after-treatment. Some few of the leaves should be taken off at the time of lifting, and also some of the more delicate and weaker shoots.—The object is to preserve every leaf and shoot entire that can be kept without wilting. After some have been taken off, if afterwards it appears that some are yet likely to wither, keep taking off till the proper balance has been arrived at. It is a good practice, with the aforesaid object in view, to set the plants for a few days after potting in a cool and humid shed.

Many re-pot, at this season, many things they are desirous to see grow freely; but, except in rare instances, there is little advantage gained; while there is much risk of losing the plant by what gardeners call "over-potting," or the soil souring, through a deficiency of roots to keep the matter healthy for the plant. *Under-potting* is always the safest side to err on.

There have often been questions started as to whether morning or evening is the best time to water plants, and many good reasons have been given on both sides. Our practice is to water in the morning in winter, and in the afternoon in summer, and the arrangement always seems satisfactory to the plants themselves. We can give no directions as to the frequency that hot or greenhouses should be syringed. A closely glazed house, that admits of little loss in the way of atmospheric humidity, may not need it once a week. A dryer house will require it oftener. A moist atmosphere is favorable to growth, while a dry one is favorable to flower and fruit. The application must be made to individual cases.

Giving air, also, is a mooted point. In a mixed collection of greenhouse plants, 45° is a good point to aim at, allowing 10° for a rise under a warm sun. When the glass indicates a disposition to rise above 55°, top-air may be given. It is good to syringe about the time air is given to the house, as it makes up for some of the moisture which then escapes.

For winter flowering, it is a good idea to keep an eye to those things which are near their natural season of blooming, instead of the more hazardous one of forcing things on that ought not naturally to bloom for months afterwards. We have the natural system pretty well recognized as the correct principle in landscape-gardening, and it might as well be introduced into this department also. Roses, of course, cannot be dispensed with; but even here the free blooming Tea and China Roses are infinitely preferable to the Mosses and Perpetuals often attempted. Roses intended for blooming, may be pruned in now about one-third of their strong shoots, and have their weaker ones cut out. As soon as the buds show an inclination to burst, the plants may be repotted in a rich loamy soil in well drained pots. Oxalises make beautiful objects in the spring early, if potted now. A rich sandy soil suits them well. Three or four bulbs are enough for one pot. They do not do well too thick together. O. Boweii, O. flava, and O. versicolor are well-known and popular species.

All succulents may be kept in the dryest part of the house, and get little water through the winter. The flat-leaved or Epiphyllum section is an exception. E. truncatum blooms through the latter part of the winter, and so must be kept growing.

ORCHARD HOUSE AND FORCING.

Vineries, orchard houses, and forcing houses of every description at this season of the year begin to be interesting.

Orchard houses are being spoken of as something altogether new; but they are nothing more than fruit houses, and as such are coeval with the art itself. Mr. Rivers, the well-known English nurseryman, has done much to make this mode of fruit-growing popular, by showing how houses may be built much more cheaply than is usually supposed, and his work, called *The Orchard House*, has given the name now so generally adopted for these structures. The mode of building these houses is that so often described in our journal, and is essentially characterized by fixed roofs in opposition to sashes. "Schuylkill's" house is one of the modifications of this plan, adapted to plant-growing. Mr. Rivers' houses are, in their construction, adapted to the milder climate of England. In our severer seasons heavier houses will be required to be effectual. In most houses that we have seen built on the fixed-roof principle, the chief defect has been in the ventilation—sufficient ventilators at the apex being seldom provided. To have this perfect, the whole surface for two or three feet of its depth should be made so as to be thrown open as occasion may require. Span-roofed houses, especially those not intended to have fire heat applied to them, are best adapted for the purpose, as they are much cheaper in proportion to the space they enclose than lean-to houses are. Any carpenter who has an idea above a packing-box, can make these houses. It is simply the abandonment of sashes, with all their fittings and fixings, and, instead, using light rafters at 8, 10, 12 or 15 inches apart, according to the size glass chosen, into which the glass is fixed as in common glazing—the roof thus, as it were, forming but one complete sash.

Peaches, Nectarines, Apricots, and Cherries, are the kinds of fruit most successfully raised in orchard houses, and some do very well with Plums. In early spring we recommended to get good healthy specimens ready potted for use the ensuing winter. These will have their shoots ripe now, and as soon as the leaves have fallen, they should be washed with a mixture of lime and sulphur, which will have a tendency to destroy any eggs of insects that may be about the bark, as well as to prevent any mildew from making its appearance. After being pruned and washed, they may be set in their position in the houses. They will require only sufficient water to keep them from drying; the boxes or pots should be well packed in leaves or litter when there is no fire heat to keep out the frost. The pruning should, of course, have some relation to the desired shape of the tree; and, so far as the benefit to the tree itself is aimed at, the weaker the tree the more severely the knife may be used on it.

In the forcing of vegetables, Asparagus and Rhubarb are two of the easiest crops to raise. Strong roots may be carefully dug up out of the garden, and beds of them made in any convenient place in the house. They neither require much heat, A temperature of 55° will bring them forward quite easily. Amongst the small fruits, the Strawberry is very easy to force. We have before directed their being potted in 6-inch pots ready for forcing. The only care at this season is to have them packed in a frame, so at command, that they can be introduced into the forcing at any desired time through the winter. They can be brought forward at any time after their crowns ripen. A temperature of 55° is also a very good one to start them with.

Communications.

HINTS FOR HORTICULTURAL SOCIETIES.

BY C., PHILADELPHIA.

Would it not be interesting if you gave us the temperature and barometrical of the previous month, weather, &c? All these little things, hard to be come at in a large city, would be useful information. It might be one of those hints to keep your book before many that would care very little about any thing else in it. You could easily obtain it at the Exchange. The weather and state of the wind would also be interesting and full of information. It seems to me that if the Horticultural Society reduced their subscription to one dollar a year, and took donations from the wealthy, there would be in the end a gain. At present it is too exclusive, and its progress is backward. Why not purchase a lot by shares, build an exhibition room worthy this city, with a proper library, open certain evenings during the week for all farming and horticultural works, and others connected with periodical and weekly? Our working men would resort thereto, pay their dollar, and come to their work with something new in their head. If theoretical, it would prove it; if practical, the employers would have the benefit. Twenty thousand dollars would do all building and buy the lot, and five thousand subscribers, receipts of exhibition, &c., would pay premiums and expenses. Properly managed would not it pay—at least, save us loss?

TALK UNDER THE PORCH.

BY B. G.

"In the name of the commonest sense," said my uncle, "what *have* you against box? Is it not neat—is it not pretty, and what could make a nicer border?

"It's old fashioned, and so am I, and that may be a reason for such youngsters as you are to set their face against it and against ——."

"Not against yourself," I hastily interrupted my uncle, and little Dolly, my pretty sister, almost at same time jumped up and closed my uncle's mouth with a kiss. "Not against you, uncle, but against box. I will maintain what I have said, and its being so long in fashion is nothing in its favor; age does not improve bad taste."

Uncle.—Well, well—(there went a conciliatory pinch of snuff)—it is *not* pretty then? It is *not* neat? It is *not* easily kept in order!

I.—It is easily kept in order, I admit, and that is one of its best qualities; too compact to let many weeds enter, easily trimmed; a scythe will do it quite as well as a knife, but—

Uncle.—But it is not pretty; isn't that what you are driving at?

I.—Perhaps it is. Now uncle, I ask you, does it not look harsh, rigid, stiff, mathematical?

Uncle.—It is a very pretty thing; waxen, glossy foliage, myrtle-like leaves, and fragrant to boot.

I.—It is all that as a plant. But we talked of bordering; and, as nature abhors what is stiff, and precise, and mathematical, so it took our superior mind and our wickedness of heart to correct nature into the exactitude of rigid lines. And a straight walk, bounded by box edging, reminds one of nothing more than a stiff party made up of old spinsters sitting on rows of chairs prim against the wall.

Uncle.—Hulloh! There you are getting poetical, my boy! But I will grant you, I myself often thought, when I saw it used as edging for beds of pretty flowers, that it looked too school-mistress like: not easy, I may say not natural enough. But is it not evergreen? Does it ever, like grass, intrude on the beds? Does it not keep the edge firm?

I.—Evergreen? To be sure, and the beds look in winter time like a looking-glass, minus the looking-glass. I mean nothing but frame—a nice advantage that.

Uncle.—Well, I ask again, what does keep the edge so firm? What intrudes so little on the beds and walks it bounds?

I.—Nothing, dear uncle, that I know of. But it's ugly. Take it for a kitchen garden; its good qualities claim that for it. But do not let it come into the garden, and if it was ever so useful, if I had a garden, I would have the motto on the gate, was it only in my own mind:

"None enter here but the fair."

Here my uncle glanced at Dolly with something in his look that meant to ask, can't pretty be useful? Anyhow, said

Uncle.—What would you take in its place, George?

I.—That's another matter, and I am not prepared for an answer.

Uncle.—A critic—a profound critic—a good hand in finding fault—no hand at all in correcting!

I.—Well, take grass, simple green grass—a little troublesome to keep in order—but charming and at any time and in any place a feast for the eyes; or for bordering the beds, take for once to some thing new—to any of the new devices.

Uncle.—New devices? New devices? By my hair, that is well nigh gone, I like new devices so they be worth some thing. Let's hear of them.

I.—There goes the tea-bell, uncle. They will keep warm when the tea won't. I will explain next time.

CANADIAN CLIMATE.

BY A SUBSCRIBER, NIAGARA, N. Y.

The cold winters of Canada in general are so proverbial that you in a more southern latitude will not be prepared to hear that in any section of it some of the fruits and vegetables of tropical countries may be produced.

Canada, you must bear in mind, is an extensive country, and embraces many degrees of latitude and longitude, but at the same time a large section lies to the south and west of Lake Ontario, and presents a continuation of the far famed Genesee country or table land in the State of New York, noted for agricultural and horticultural productions.

I have read the reliable communication of Mr. Fleming, of Toronto, in your August number; but Mr. F. resides on the north side of Lake Ontario, and, although only thirty-four miles distant from this town, the lake intervenes, and some degrees difference of climate is acknowledged in favor of the south side.

The frost of the 4th of June last did some damage on this side of the lake also, and, inasmuch as all vegetation was more advanced, a greater field was presented to its influence; but I have good reason to believe that although the result was less serious on vegetation, it was sufficiently severe to destroy myriads of the plum curculio, as I find the plum crop will be tolerably good, whilst in ordinary seasons the chief preventive—the Grand Turk—destroys the finest varieties, and leaves little of any other, excepting the fall Damson.

Gardeners have heretofore failed in discovering an effectual remedy, but this season an unusual visitation has resulted in benefit to the horticulturists in that species of fruits, as it has to the farmers in mitigating the ravages of the wheat insect.

I have digressed from the real object of my note which I set out with, and which I deem worthy of being communicated, and that is, that whilst the intense frost of last winter, on a few occasions, destroyed much of the fruit crop of Canada and the more northern of the States, and the peach crop very generally, a small section of country at the mouth of the Niagara River, limited to about four miles square, can boast of a climate and soil more favored, and especially adapted to the culture of the last mentioned most desirable fruit amongst many others, and I believe I may truthfully add that this section will, during the present year, yield a crop of peaches equal to that of the whole State of New York.

I examined a small plantation of my own recently, and out of one hundred and twenty-five trees only five are bare of fruit.

On no occasion during the past winter did the mercury fall lower than 10° below zero, whilst at a distance of ten miles westerly it fell to 17°, more westerly to 25°, and easterly to 30°, until Quebec is reached, where it fell lower than 40°.

My locality is "*The Fair and Fruitful Niagara.*"

Your obedient, A Subscriber.

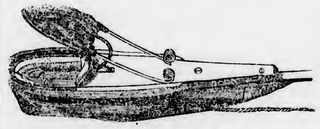
Niagara, August 15, 1859.

THE AMATEUR FRUIT-GATHERER.

BY B. L. RYDER, LOUDON, PA.

Friend Thomas Meehan:

I have sent you, per express, a Fruit-gatherer. Perhaps you have something better in use; if not, you will please procure a long handle and fasten on the short stump. With a long cord, and a few rings along the handle to keep the line in place, and a small stick to pull by at the end of the string, you can reach fine specimens of fruit otherwise out of reach. This I made myself; and, though roughly and hur-



riedly made, will give you an idea of what it is worth. If possessed of any novelty, you can lay it before your readers as free to all who choose to use it. The same thing may now be in use, or may have been long ago, but unknown to me. To the best of my knowledge, the idea is original with me, having one of the same kind in use now for three years.

[The engraving explains itself. The "body" is of wood, and the "mouth" and "throat" is made of varnished muslin, such as is used for wagon-covers. —Ed.]

EXPERIMENTS WITH THE TOMATO, &C.

BY AN AMATEUR.

Mr. Editor:

Dear Sir:—I take the liberty of sending you the result of some experiments I have been making with some of our garden vegetables, and first the Tomato. It has been generally thought that this plant is an *annual*, and it is so described in, I believe, all botanical works. Wishing to try the experiment of forcing them in winter, I took up some old plants out of the garden late in the fall, potted them, and put them in a vinery. I was pretty successful with them, and in the spring I set them out in the garden again. They did not bear very early nor plentifully, but grew very luxuriantly and apparently in perfect health and vigor. The following fall I again lifted them, and kept them in a rather cool greenhouse, so that they did not grow much during the winter. This spring I again set them out, and they are bearing quite a fair crop. I intend taking them up again this fall, and will give you hereafter an account of my success.

I will also state that at the same time I first took them up I struck a number of cuttings, and they have also continued from that time to grow and bear. I treated the Egg Plant in the same way, taking up a number of plants in the fall, but they all died before spring, although the house in which they were kept was quite warm. I took off a number of cuttings of them at the same time; but, after becoming pretty well rooted, they also died. I have not as yet experimented on the Pepper, but am informed that the small West Indian varieties are, if not perennial, at least biennial. I hope that any of your readers who have experimented with any of the above named vegetables will give us their experience.

I am, very truly, yours, An Amateur.

ARTIFICIAL GUANO.

BY H.

August 29th, 1859.

My Dear Sir:

I inclose a recipe for a new fertilizer, which I intend preparing this week by way of trial. The cost of the raw material is about $10.

VALENTINE'S RECIPE FOR ARTIFICIAL GUANO.

No. 1. Dry Peat	20	bushels.
No. 2. Wood Ashes	3	"
No. 3. Fine Bone Dust	3	"
No 4. Calcined Plaster	3	"
No. 5. Nitrate Soda	40	pounds.
No. 6. Sulphate Ammonia	33	"
No. 7. " Soda	40	"

If peat cannot be obtained, use garden mould or clean virgin soil.

MIXING.

Mix Nos. 1, 2 and 3 together; then mix Nos. 5, 6 and 7 in four or five pails of water; when dissolved, add the liquid to the mixture of 1, 2 and 3, as in making mortar; when thoroughly mixed, add No. 4, the calcined plaster, which will absorb the *liquid* and bring the whole to a dry state.

Mix under cover, in a dry place. Pack so as to exclude air.

Product, one ton, which will manure 7½ acres of land.

I think the Artificial Guano would be improved by the addition of a bushel each of poudrette and dried blood, and shall try its effect.

SUBSOIL GROUND.

BY E. M.

Mr. Editor:

Last fall I made arrangements to trench up through the winter, when other work was slack, a piece of ground in my nursery, by covering it with the manure intended to be worked in, so that the frost should not enter so as to prevent our working. This spring the piece of ground was set out with peach trees dibbled out after they had been sprouted in a hot-bed. Many more stones grew than I expected, and there was not enough trenched, but I set several men to work, and had, in two days, more ground ready and planted. Although only two days' difference, the plants seem at least a month ahead. The quality of soil is all the same. I infer from this that the longer time the manure has had to get decayed in the soil between any one cropping, the better it is. Whether or not, I send you the hint, which may do to fill up a corner.

[Much obliged. We have a few more "corners" left for similar hints. Pray send some along.—Ed.]

HORTICULTURE IN TENNESSEE.

BY OBSERVER, CINCINNATI, OHIO.

On a recent visit to Nashville, the capital of the State of Tennessee, business called me to the Hospital for the Insane, located about seven miles south-east of the city, which, under the management of the present enlightened superintendent, Dr. Cheatham, struck us as being well worthy a notice in the *Gardener's Monthly*.

The Doctor, being an ardent horticulturist, has shown his good taste in the laying out of the grounds with an eye to landscape beauty and general picturesque effect. Insanity, which has been very justly said to be the greatest affliction humanity can be subjected to, is here divested of all the revolting horrors of treatment to which suffering mortals were formerly subjected under the old system. Kindness, quietude, innocent amusements, and recreation, are the principal aids on which the Doctor depends for the relief and cure of the unfortunate patients under his care; and one of the most efficient auxiliaries is found to be, exercise in the beautiful and extensive pleasure-grounds which surround and adorn the building. Here are large masses of perpetual blooming Roses, Geraniums, Petunias, Verbenas, and the various other summer bedding flowers in full bloom, not strung along in straight, formal rows, as too often they are seen in both public and private grounds, but arranged in tasteful beds cut in various devices in the lawns, the keeping of which neat and free from weeds affords healthful exercise and recreation to such of the patients as can be trusted in such employments. On questioning the head gardener—Mr. Underwood—whether the workmen did not sometimes destroy the plants, he informed me, occasionally they did, but not more frequently than the generality of laborers who are usually hired to perform the same operations where practical gardeners are not employed—a fact which shows a very satisfactory practical result. In addition to the extensive ornamental grounds here, is a range of glass, embracing two tasteful and well arranged greenhouses, a circular Victoria house, in which the queenly Water Lily has been blooming since February last, and was in fine condition at the time of my visit—August 1st—with leaves near six feet in diameter; the edges in curving about one inch, the upper surface of the leaf showing the soft rich glow, betokening luxuriant health. Here were also a fine collection of handsome well grown plants in preparation for exhibition at the Annual State Fair, and such specimens as would do credit to any gardener, and be an ornament to any horticultural exhibition; among them we observed several varieties of Hibiscus sinensis, Vinca rosea and V. alba, Clerodendron squamatum, C. fallax, C. fragrans and C. Bungeii, Jasminum sambac, multiflorum, and Grand Duke; all promising abundance of bloom; several varieties of the Lantana in various styles of training. This is a most admirable family of plants for the south and west, either for bedding purposes or grown as specimens, being constant and profuse bloomers, glorying in the intense sun heat which will fairly roast the leaves of the English bedding Geraniums, Pentas carnea and P. rosea were here in beautiful condition, (deserving a special notice from the rarity of finding them in such a state.) The exquisite Stephanotus floribundus, which, when well grown and bloomed, stands at the head of stove climbers, we must not overlook. The noble Erithryna versicolor, which throws the old E. crista galli completely into the shade with its rich blue green foliage, neat compact habit, and gorgeous spikes of flowers, constituting it the finest representative of the family. In a house with a northern aspect, we found some Orchidæ in flourishing condition, and a fine collection of Ferns, Lycopods, &c.; the most noticeable of which, perhaps, is Selaginella variabilis, somewhat resembling Lycopodium circinatum in its general habit, but still more compact. In the morning it is a soft green; by the latter part of the afternoon it assumes a delicate silvery grey color, which commences diffusing itself about high noon, until the entire surface of the plant acquires that color, changing again through the night. How expressive is the specific name *Variabilis!*

In the collection of variegated plants were the lovely Cissus discolor, Croton pictum and C. variegatum in beautiful condition, Maranta albo lineata, M. zebrina, with its richly striped velvety leaves, and the royal and lovely Maranta regalis robed in purple and gold, Caladium pictum, C. violaceum, and C. discolor, all in flourishing condition. In the vinery were a few handsome bunches of grapes, but nearly all the vines had been very seriously injured at the roots; in fact, they had been nearly destroyed by moles. (It occurred to your correspondent that perhaps *rats* might be more justly charged with the destruction.) However, it is supposed they have effectually guarded against future depredations of a similar character. The large grounds devoted to the growing of vegetables were well filled with growing crops. Strawberries were here produced in such profusion, that the whole establishment, patients and employees, numbering over three hundred persons, had as much of the fruit as they needed—a little fact that speaks volumes for the kindly care and forethought governing this institution. How much of pleasurable gratification would this little circumstance, trifling though it may appear in itself, afford to scores of the afflicted inmates of the establishment!

Many of the patients are employed in the necessary labors of this department, and nearly all are allowed the opportunity of enjoying the varied *floral* and other beautiful objects that here abounds; of course, under proper surveillance and restrictions as to times, &c.

Here are also orchards of considerable extent of the choicest varieties of fruits, which, when they come into bearing, will further add to the comforts and enjoyments of the patients. The internal arrangements of the establishment correspond to its conveniences and adornments; in cleanliness, neatness and general good order, it could not be surpassed; whilst the provision for ventilation, heating, &c., are of the best description; even mental recreation is not overlooked. To each ward is attached a reading and sitting room, which is furnished with a select library of instructive and entertaining books, and various newspapers, so that those capable may have the benefit of knowing the current history and events of the day, and some of them enter into the leading political questions of the times with as much earnestness as their more favored fellow-mortals who enjoy the unrestrained liberties of American citizens.

The very gentlemanly superintendent loses no opportunity of keeping himself posted on the improvements continually being introduced into institutions of similar character, both in this country and in Europe. At the time of our visit, he had but recently returned from an inspection tour of some of the Eastern establishments.

Well it is for a people when the management of such public institutions as the one under consideration are controlled by individuals so well qualified to apply the means supplied to the ends to be attained as are the present Board of Trustees, who have the supervision of the establishment, to whose enlightened and liberal views are to be ascribed the high character this institution has so deservedly attained. When the contemplated improvements are carried to completion, this may be considered in the light of a school to the citizens of the State where the practical results of the sciences of agriculture, (there is a farm of some three or four hundred acres attached to the institution,) horticulture, and domestic economy, as exemplified in the management of the establishment, may be studied, and in this way may return to the citizens a large interest for the capital invested, whilst the wants of an afflicted portion of the *human family* receive that care and attention calculated to restore them again to the bosoms of their families, and again enable them to become useful members of society. Such is the high state of health here enjoyed, although the patients number nearly three hundred, the necessary attendants and employees swelling the number to over three hundred and fifty persons, not a serious case of sickness exists amongst them, notwithstanding the extreme heat which had prevailed for several successive weeks.

I commenced to report on the state of horticulture as I here found it, but have incidentally digressed to other subjects pertaining to the general management of this institution from the very favorable impression made on my mind on noticing the change which public sentiment has undergone within the last few years in the remedial agents employed in restoring to suffering humanity in healthful condition the rational faculties which have become deranged by misfortunes, or the various ailments of life governing that most complicated and subtle machinery—the *human mind*.

Should you deem the foregoing worthy a place in the *Gardener's Monthly*, I may, perhaps, give you more notes on Horticulture in Tennessee.

OBSERVER.

[We are gratified to receive the above communication from one of our most intelligent western horticulturists, and hope he will continue his notes.—Ed.]

DISTINGUISHING NATIVE FROM FOREIGN GRAPES.

BY CHARLES ARNOLD, PARIS, C. W.

Dear Sir:

Having read several instructive articles in our valuable *Monthly* on the interesting subject—Native and Foreign Grapes—the distinctness of their foliage, cross-breeds, &c., I have felt my inquisitiveness considerably excited, and at the same time have felt a strong desire to communicate to you the apparent result of a few of my experiments in these matters. Pardon, then, my simplicity when I ask, are there really more than one distinct species of the grape? and, if there are, what are their distinguishing features? Is the *downiness* on the foliage indicative of a native? If so, where, for instance, do you place Miller's Burgundy? and does the absence of down and the distinct division of the leaf into lobes constitute a foreigner? Then what do you say to our wild Frost Grapes? and if the downiness on the leaf is supposed to prevent mildew, or the smoothness of the leaf to be favorable to the reception of mildew, then how is it that Miller's Burgundy is liable to the attacks of mildew, and that our frost grapes always resist it?

I have no trouble whatever, Mr. Editor, in distinguishing the Hamburg, Chasselas, Syrian, &c., from the Fox Grape, and its supposed descendants, such as Isabella, Concord, Diana, &c.; but when I come to compare Miller's Burgundy with some of the Foxy descendants and Black St. Peter's and some other foreign varieties with some of our wild Frost Grapes, and their grandchild, the Clinton, I feel nonplussed, and very much inclined to believe in only one distinct species, and innumerable varieties, unless the division into different species is to be decided by the sense of smelling and tasting, rather than by seeing.

But, Mr. Editor, supposing there are a number of species, is there any thing to prevent the crossing of them? If there is not, what will be the best for the female parent—one that is early and perfectly hardy, and one whose anthers do not burst until some hours after the calyx or cap has fallen, and thus afforded an opportunity of cutting out its anthers, and dusting the pollen of some other desired variety upon its pistil? But, sir, I fear you will think I am occupying too much of your valuable space with my simple questions, and it may be that you will say of some of them that they are much easier asked than answered.

Therefore, sir, I will now beg to introduce to your notice the foliage of some of my interesting family of seedling grapes, and when I assure you that No. 1 is the leaf of the female parent of all the other numbers, (unless you have yourself experimented in the cross breeding of the grape,) I shall not be surprised if you doubt my veracity.

No. 1 female parent (Canada Wine Grape.) From No. 2 to No. 15 seedlings of No. 1 dusted promiscuously with the pollen of Black Hamburg, St. Peter's, Syrian, Victoria, and I believe also with Golden Chasselas.

Will you have the kindness to give your opinion as to what species they belong, and what variety they most resemble?

And oblige, yours, respectfully,

CHARLES ARNOLD.

P. S.—I have been experimenting this season on the Clinton by removing the cap of the flower prematurely, cutting out the anthers and crossing with St. Peter's. I shall be happy to communicate the result, and compare notes if desired. C. A.

[One of the most valuable contributions on this interesting subject, illustrating the value of trying what really *is* than what *may be*. Two-thirds of the leaves sent have the characters of the *Vitis vinifera*, or European species, while the remainder are referable to some one of the twelve species into which our native grapes are divided. The absence of down on the leaves is no evidence that a grape may not be a native. The *Vitis pullaria*, the parent of the Clinton, and the *Vitis rotundifolia*, the parent of the Scuppernong, both have leaves smooth and green on both sides. The *flatness* of the leaves, as opposed to *rugose* or wrinkled, and the sharpness of the dentations along the margins of the leaves, are the only unvarying and peculiar characteristics of the foreign species that we have been able to discover. Absence of pulp, thinness of skin, and many other points in the foreign grape, all have their counterpart in some one of our native species. Our correspondent's experiments do not prove that the species are identical, but that they certainly will hybridize freely together. If different plants, usually considered two species, were produced from seed, which had certainly not been originated by hybridization, that would show that they were but varieties. There have been frequent discussions whether certain grapes are of native or foreign origin. In future, we shall have to discuss a third class, namely: hybrids between the other two.—Ed.]

THE FILLMORE STRAWBERRY.

BY JUSTITIA, WARREN, MD.

Having seen an article in the August number of the *Monthly*, in which the author seems to call in question the high character of the Fillmore Strawberry as described in a recent number of your paper by Mr. Feast, its originator, I deem it but justice to say something regarding the matter, having had several opportunities of seeing and comparing it with other kinds during the strawberry season. The soil in which this berry, together with other varieties, are cultivated, is poor, of Micaceous and Silicious character, and Mr. F. assures us it has never received any other fertilization than lime. We there saw the Fillmore cultivated promiscuously with Hovey's, McAvoy's Superior, Longworth's Prolific, Keene's Seedling, Peabody's, and other varieties not now remembered, and we were surprised at its great superiority in point of size, beauty, and flavor, over the varieties grown on the same soil with it; and we have no hesitation in asserting that under more generous cultivation it can be grown one-third larger than we there saw it. It is well worthy the attention of amateurs and market gardeners, commanding as it did the high price of 50 cents per quart in the Baltimore market.

JUSTITIA.

[Some will say communications of this character look best with the name, or at least initials, of the writers attached. In this instance, we may observe that the author is an amateur cultivator, in whose judgment we have the highest confidence.—Ed.]

To Clean Green Currants.—An expeditious way of cleaning green currants from stems and grit, is to rub them well and hard in a handful or more of flour, then rub them in a sieve, wash them well in several waters, spread on papers to dry, stir frequently if not drying in an oven; but they are better dried on folded cloth in the sun.—*Pioneer Farmer.*

GARDEN SEATS.

BY SCHUYLKILL.

Mr. Editor:

I send you drawings of two Garden Seats that I have recently made, and which I think possess three very important and desirable qualities, viz: durability, simplicity and comfort. Any one who can handle a hatchet, saw and chisel, can make one of the single seats in about an hour. The drawings will of themselves almost explain the principle of them, which is the substitution of a post or posts, settled in the ground for the ordinary legs.

Fig. 1.

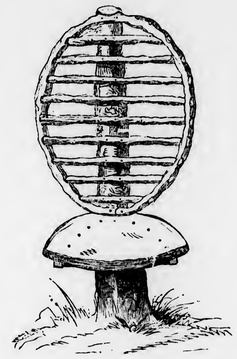


Fig. 1 is a single seat, supported by one post, which should be of cedar or some durable wood, and settled in the ground at least two feet. In doing this the earth should be well rammed around it to keep it solid. It makes a more comfortable seat to plant the post in a slanting position in the ground, as shown in fig. 2. The post should be notched in with a saw,

Fig. 2.

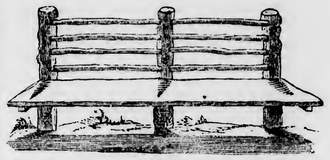
and two pieces of oak or other strong wood nailed into these notches or grooves, so as to form with each other an angle of about 45°, see fig. 3. These pieces

Fig. 3.

support the seat, which should be of common inch board, covered with smooth bark. The back is formed of small pieces of wood with the bark on, set into grooves cut into the post and well nailed. Then finish with a hickory or oak sapling, well soaked to make it bend easily, as shown in the drawing; but this is is not necessarv, except for ornament.

The long seat or Settee is made on the same principle, only that there is but *one* strip set in a groove and nailed on the sides of each of the three posts to support the seats. See fig. 4.

Fig. 4.



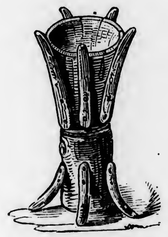
These seats are very comfortable and durable, and I would recommend them for our public parks or other grounds where a considerable number are required.

While on the subject of rustic work, I send you a

Fig. 5.

sketch of a simple Hanging Basket (see fig. 5) for for trailing plants, which is an improvement on the

Fig. 6.



ordinary square basket of the same style. Also two Orchid stands of simple construction, see figs. 6 and

Fig. 7.

7. They need no explanation, and probably are not new to many of your readers.

Yours respectfully, SCHUYLKILL.

Peaches in Pots.—In the orchard house of D. T. Coit, Norwich, Conn., (says the *Homestead*,) peaches are cultivated in sixteen-inch pots, or in boxes about the same size, kept in the grapery during winter, and removed to the open ground in June. Of course the trees are severely headed-in, and kept within small compass. They will bear about two dozen peaches each, and when thus managed are as sure a crop as any other fruit. In this sized pot they are easily managed, and a large number may be wintered in a small house.

LANDSCAPE GARDENING.

BY W. ROGERS, CLEVELAND, O.

YOUR correspondent E. D. asks for instructions to form a Landscape Gardener. He might, with equal propriety, wish for a receipt to make a painter or a poet.

"Canst thou describe a sunbeam to the blind,
Or make him feel a shadow with his mind?
So neither can we by description show
The first of all the sciences below."

True there are certain set rules for laying out grounds, which any architect or engineer can achieve, but the composition of the landscape by grouping of trees, lights, and shadows, &c., &c., requires an innate idea of the beautiful in nature, such as none but a painter, poet, and, I had almost said, a good man, can create.

The poet Shenstone was a landscape gardener. The description of Leasowe's shows the true pastoral, that is poetic feeling. An utilitarian might consider that he carried his refinement a little too far in purchasing cows, not with reference to their good points for milk and beef, but from the beauty of their spots to adorn his park, and also selected small ones in order to give greater apparent extent by comparison to his grounds. Such cattle, however, of fine form, with a choice flock of South Downs in this country, would be preferable to deer.

A high degree of refinement is necessary for the enjoyment of rural life. The man of taste, who delights to study nature in her various guises, can alone appreciate our gentle art.

Yours, truly, WM ROGERS.

[THE Leasowes, the residence of the poet Shenstone, is famous in the history of modern landscape gardening, but very little is known of the details of the place. The following from the polished pen of Whately, and now out of print, is well worth preserving:

"Near the entrance into the ground this walk plunges suddenly into a dark narrow dell, filled with small trees which grow upon abrupt and broken steeps, and watered by a brook, which falls among roots and stones down a natural cascade into the hollow. The stream at first is rapid and open; it is afterwards concealed by thickets, and can be traced only by its murmurs; and gliding then between little groups of trees, loses itself at last in a piece of water just below. The end of this sequestered spot opens to a pretty landscape, which is very simple; for the parts are but few, and all the objects are familiar; they are only the piece of water, some fields on an easy ascent beyond it, and the steeple of a church above them.

"The next scene is more solitary; it is confined within itself, a rude neglected bottom, the sides of which are over-run with bushes and fern, interspersed with several trees. A rill also runs through this little valley, issuing from a wood which hangs on one of the declivities; the stream winds through the wood in a succession of cascades down a quick descent of an hundred and fifty yards in continuance; alders and hornbean grow in the midst of its bed; they shoot up in several stems from the same root, and the current trickles amongst them. On the banks a.e some considerable trees, which spread but a chequered shade, and let in here and there a sunbeam to play upon the water; beyond them is a slight coppice, just sufficient to screen the spot from open view; but it casts no gloom, and the space within is all an animated scene; the stream has a peculiar vivacity, and the singular appearance of the upper falls, high in the trees, and seen through the boughs, is equally romantic, beautiful, and lively. The walk having passed through this wood, returns into the same valley, but into another part of it, similar in itself to the former; and yet they appear to be very different scenes, from the conduct only of the path; for, in the one, it is open, in the bottom, and perfectly retired; in the other, it is on the brow; it is shaded, and it overlooks not only the little wild below, but some corn-fields also on the opposite side, which, by their cheerfulness and their proximity, dissipate every idea of solitude.

"At the extremity of the vale is a grove of large forest trees, inclining down a steep declivity; and near it are two fields, both irregular, both beautiful, but distinguished in every particular; the variety of the Leasowes is wonderful; all the enclosures are totally different; there is seldom a single circumstance in which they agree. Of these near the grove, the lower field comprehends both the sides of a deep dip; the upper is one large knoll; the former is encompassed with thick wood; the latter is open; a slight hedge, and a serpentine river, are all its boundary. Several trees, single or in groups, are scattered over the swells of the ground; not a tree is to be seen on all the steeps of the hollow. The path creeps under a hedge round the one, and catches here and there only peeps of the country. It runs directly across the other to the highest eminence, and bursts at once upon the view.

"This prospect is also a source of endless variety; it is cheerful and extensive, over a fine hilly country, richly cultivated, and full of objects and inhabitants; Hales Owen, a large town, is near; and the Wrekin, at thirty miles distance, is distinctly visible in the horizon. From the knoll, which has been mentioned, it is seen altogether, and the beautiful farm of the Leasowes is included in the landscape. In other spots, plantations have been raised, or openings cut, on purpose to shut out, or let in, parts of it, at certain points of view. Just below the principal eminence, which commands the whole, is a seat, where all the striking objects being hid by a few trees, the scene is simply a range of enclosed country. This at other seats is excluded, and only the town, or the church, or the steeple without the church, appears. A village, a farm house, or a cottage, which had been unobserved in the confusion of the general prospect, becomes principal in more contracted views; and the same object which at once place seemed exposed and solitary, is companied at another with a foreground of wood, or backed by a beautiful hill. The attention to every circumstance which could diversify the scene has been indefatigable; but the art of the contrivance can never be perceived—the effect always seems accidental.

"The transitions also are generally very sudden; from this elevated and gay situation, the change is immediate to sober and quiet home views. The first is a pasture, elegant as a polished lawn, in size not diminutive, and enriched with several fine trees scattered over ground, which lies delightfully. Just below it is a little waste, shut up by rude steeps, and wild hanging coppices; on one side of which is a wood, full of large timber trees, and thick with underwood. This receives into its bosom a small irregular piece of water, the other end of which is open; and the light there breaking in enlivens all the rest, even where trees overhang, or thickets border upon the banks, though the reflection of the shadows, the stillness of the water, and the depth of the wood, spread a composure over the whole scene; yet the coolness of it strikes no chill; the shade spreads no gloom; the retreat is peaceful and silent, but not solemn—a refreshing shelter from the scorching heat of noon, without suggesting the most distant idea of the damp and the darkness of night.

"A rill much more gentle than any of the former runs from this piece of water through a coppice of considerable length, dropping here and there down a shallow fall, or winding about little pits, in which some groups of small trees are growing. The path is conducted along the bank to the foot of a hill, which it climbs in an awkward zig-zag; and on the top it enters a straight walk, over-arched with trees; but though the ascent and the terrace command charming prospects, they are both too artificial for the character of the Leasowes. The path, however, as soon as it is freed from this restraint, recovers its former simplicity, and descends through several fields, from which are many pretty views of the farm, distinguished by the varieties of the ground, the different enclosures, the hedges, the hedge-rows, and the thickets, which divide them; or the clumps, the single trees, and now and then a hay-stack, which sometimes break the lines of the boundaries, and sometimes stand out in the midst of the pastures.

"At the end of the descent an enchanting grove overspreads a small valley, the abrupt sides of which form the banks of a lovely rivulet, which winds along the bottom; the stream rushes into the dell by a very precipitate cascade, which is seen through openings in the trees, glimmering at a distance among the shades which overhang it; the current, as it proceeds, drops down several falls, but between them it is placid and smooth; it is everywhere clear, and sometimes dappled by gleams of light; while the shadow of every single leaf is marked on the water, and the verdure of the foliage above, of the moss, and the grass, and the wild plants, on the brink, seems brightened in the reflection; various pretty clusters of open coppice wood are dispersed about the banks; stately forest trees rise in beautiful groups upon fine swelling knolls above them; and often one or two detached from the rest, incline down the slopes, or slant across the stream. As the valley descends, it grows more gloomy; the rivulet is lost in a pool, which is dull, encompassed and darkened by large trees; and just before the stream enters it, in the midst of a plantation of yews, is a bridge of one arch, built of a dusky colored stone, and simple even to rudeness; but this gloom is not a black spot, ill-united with the rest; it is only a deeper cast of shade; no part of the fence is lightsome; a solemnity prevails over the whole, and it receives an additional dignity from an inscription on a small obelisk, dedicating the grove to the genius of Virgil. Near to this delightful spot is the first entrance into the grounds, and thither the walk tends, along the side of a rill.

"But it would be injustice to quit the Leasowes, without mentioning one or two circumstances, which, in following the course of the walk, could not well be taken notice of. The art with which the divisions between the fields are diversified is one of them; even the hedges are distinguished from each other; a common quickset fence is in one place the separation; in another, it is a lofty hedge-row, thick from the top to the bottom; in a third, it is a continued range of trees, with all their stems clear, and the light appearing in the intervals between their boughs and the bushes beneath them; in others these lines of trees are broken, a few groups only being left at different distances; and sometimes a wood, a grove, a coppice, or a thicket, is the apparent boundary, and by them both the shape and the style of the enclosure are varied.

"The inscriptions which abound in the place are another striking peculiarity; they are well known and justly admired; and the elegance of the poetry, and the aptness of the quotations, atone for their length and their number; but, in general, inscriptions please no more than once; the utmost they can pretend to, except when their allusions are emblematical, is to point out the beauties, or describe the effects, of the spots they belong to; but those beauties and those effects must be very faint, which stand in need of the assistance. Inscriptions, however, to commemorate a departed friend are evidently exempt from the censure; the monuments would be unintelligible without them; and an urn, in a lonely grove, or in the midst of a field, is a favorite embellishment at the Leasowes. They are, indeed, among the principal ornaments of the place, for the buildings are mostly mere seats, or little root-houses; a ruin of a priory is the largest, and that has no peculiar beauty to recommend it; but a multiplicity of objects are unnecessary in the farm; the country it commands is full of them, and every natural advantage of the place within itself has been discovered, applied, contrasted, and carried to the utmost perfection, in the purest taste, and with inexhaustible fancy."

New or Rare Plants.

RHODODENDRON WILSONI is a cross between *R. liliatum* and *R. glaucam*, raised by Mr. Nuttall. The flowers are in medium sized heads, and each one resembles *Wiegelia rosea*.

LINUM PUBESCENS, SIBTHORPIANUM. L. grandiflorum rubrum, is now becoming well known for its extreme beauty. This kind resembes it in habit, but the red is paler, and it has, besides, a yellow throat with purple eye.

VRIESIA PSITTACINA. *Rubro-bracteata*, Parrot-flowered Vriesia.—An old Brazilian plant, lately reintroduced. It is one of the Pine Apple tribe of plants, now so well known as amongst the most useful of winter-flowering stove-plants.—*Ibid.*

COLUMNEA SCANDENS (*Climbing Columnea.*)—This, merely from a variation in its leaves, has been also called *C. rotundifolia* and *C. speciosa*. Native of the West Indies. Flowers dark flesh-color. Grows well "in a basket suspended from the roof of a moist stove."—*Botanical Magazine, t.* 5118.

GOLDFUSSIA THOMSONI (*Dr. Thomson's Goldfussia.*)—Native of the Sikkim-Himalaya, at elevations of from 6,000 to 9,000 feet. Flowers violet-purple, abundant, and in succession for several weeks.—*Ibid, t.* 5119.

RHODODENDRON SMITHII (*Sir James Smith's Rhododendron.*)—Native of the northern slopes of the Lablung Pass, in Bootan. Blooms in March. Flowers red.—*Ibid, t.* 5120.

STANGERIA PARADOXA (*Fern-leaved Stangeria.*)—This remarkable plant was sent, in 1835, from Natal by Dr. Stanger. It was thought to be a "Zamia-like Fern;" but Mr. Moore correctly observed that it was more like a Cycad than a Fern. It has recently bloomed, and is now found to be a true Cycad. It has been called *Lomaria coriacea*, and *L. eriopus.*—*Ibid, t.* 5121.

AGAVE MACULOSA (*Spotted-leaved Dwarf Agave.*)—Native of Texas. Flowers in September. Not more than two feet high.—*Ibid, t.* 5122.

ADENANDRA UMBELLATA. *Willd.* Nat. ord. *Rutaceæ.* Native of the Cape of Good Hope.—Shrubby, compact, very handsome. Flowers terminal, nearly sessile, sometimes several together, then they are umbellate, but more usually solitary. Petals five, broadly elliptical, minutely ciliated, pink on the outside, white on the inside, with a narrow line of delicate crimson running from the base half way up the centre.

This may not be termed a free-blooming plant, but it is certainly a beautiful and highly interesting one.

NEW PELARGOMIUMS.—At a recent London show, a nice bank of Seedlings appeared to greatly interest growers of this popular flower, as well as the public. The best were Autocrat (Foster,) white centre, dark top, and richly painted lower petals; King of Purples (Turner,) rosy purple, spotted on the lower petals; Czar (Hoyle,) similar in character to Autocrat; Angelina (Hoyle,) a smooth flower, light lower petals, very dark top; Hero (Turner,) salmon spotted; Spark (Turner,) a small but vivid scarlet, much the brightest of its class; Fancy Arabella Goddard (Turner,) soft rose, white eye and edge, fine form. The Judges selected the above for prizes.—*Gardener's Chronicle.*

BRACHYCHITON BIDWILLI *Bidwill's Brachychiton.*—Sent by Mr. Bidwill, in 1851, from the Widebay district of north-east Australia. Blooms in a stove from autumn until spring. Flowers red. Greenhouse.

DENDROMECON RIGIDUM *Rigid Tree-Poppy*—Discovered by the unfortunate Douglas in California; but first imported by Messrs Veitch & Sons through their collector, Mr. W. Lobb. "It has proved quite hardy, and is really a handsome plant, flowering in the summer months." Color yellow. Hardy annual.

CYANOPHYLLUM MAGNIFICUM.

PLANTS with striking and variegated foliage, are now greatly sought after, and botanical collectors are contributing largely to our collections from every part of the world. M. Linden, of Brussels, has recently introduced a number of plants of this kind, amongst which is the *Cyanophyllum magnificum*. The leaves are about 9 inches long, and about 4 broad,* with 3 white nerves running lengthwise of the leaf, as shown in the engraving. These large nerves are connected together by a network of smaller nerves of a very light green color. The leaves underneath are of a blueish purple color, but on the upper side of a fine, rich, dark, velvety green, which shows out the white and light green nerves to great advantage, producing a charming effect. This plant was discovered in Central America, and grew in its native habitats in a hot, moist and rather shady situation, which shows that it requires the same treatment as most of the finely variegated leaved plants.—*La Revue Horticole.*

[* THIS must be a mistake, or else the plant must have been a very small one, as we see by a late number of the *Cottage Gardener*, that at the late Exhibition at Kirkstall Abbey, a plant was exhibited with leaves 30 inches long by 16 inches wide! It is said to have been the gem of the Exhibition.—ED. G. M.]

BORONIA DRUMMONDI. *Planch.* Nat. ord. *Rutaceæ.* Native of West Australia.—Evergreen, dwarf, erect. Flowers axillary and solitary; petals four; ovate, beautiful rosy purple. A very beautiful greenhouse plant, whose habit, naturally so good, requires little trouble to form it into handsome specimens. A compost of sandy peat, with a little light loam and small bits of charcoal, suits it best. The drainage must be kept in the most perfect condition to ensure success. The flowering of this, as well as many other Boronias, is much enhanced by being placed in a temperature a little higher than that of the greenhouse. Cuttings of the partially ripened shoots, in very mild heat, root freely. Flowers in April and May.—*Cottage Gardener.*

BORONIA POLYGALÆFOLIA. *Sm.* Native of West Australia.—Glaucous, erect, rather lax. Inflorescence cymose, terminal, and axillary. Petals four, bluntly ovate, pale rosy-purple. Very distinct from the above, but equally desirable. It requires a little more attention to stopping and tying out; but in other respects it should have the same kind of treatment as *B. Drummondi*. It comes into flower a little later.—*Cottage Gardener.*

DENDROBIUM ALBO-SANGUINEUM *White and Crimson Dendrobium.*—Native of Attran River, Moulmein, whence it was imported by Messrs. Veitch & Sons, of the Exeter and Chelsea Nurseries. It flowered at Kew during April. Stove.

ÆSCHYNANTHUS CORDIFOLIUS *Heart-leaved Æschynanthus.*—Imported by Messrs Veitch & Sons from Borneo, where it was discovered by their collector, Mr. T. Lobb. Flowers scarlet, streaked in the throat with black. Stove.

POINCIANA GILLIESII.—This beautiful deciduous shrub, so well adapted to our Southern gardens, is a native of Paraguay, where it is found on the rich borders of rivers and swamps. The tribe to which it belongs is named in memory of De Poinci, Governor of the Antilles, and belongs to the class Decandria of the Linnæn system, and to the natural order of *Legumi nosæ*. It will grow almost anywhere and stand our hottest sun with impunity, but it delights in rich and moist soil, or, at least, a bountiful supply of water. In such a locality it will bloom constantly from the beginning of May until arrested by frost, producing large bunches of pale yellow flowers, with very long, bright scarlet stamens. It is raised from seed, and when sowed early in the spring in the open garden, will bloom and ripen its seed the first summer. Its growth, when left to itself, is apt to become a little straggling, which, however, is easily remedied by pruning. It grows about eight feet high.

Another tree of this family, Poinciana regia, is remarkable for its stately growth, (about forty feet high,) and for its bright, crimson scarlet flowers, but can probably not be raised north of 30° north latitude.—*Dr. Cloud's Cotton Planter.*

NEW ACHIMINES —The following new hybrids are just announced in the English papers, and are said to be very distinct in handsome foliage, habit, and beautiful flowers. They are named Adonis, Aurora, Comet, Denton Beauty, Delicata, Erecta multiflora, Mars, and Mazeppa.

NEW GLOXINIAS.—We have had sent us by a friend two new varieties, which are very beautiful. One—*Attraction*—has a very rich carmine throat, while the edge of the corolla is a clear white and singularly recurved. *Princess Alice* is one of the erect flowering varieties, and has a very circular form, and is of a rosy pink.

The Gardener's Monthly.

PHILADELPHIA, OCTOBER 1, 1859.

☞ All Communications for the Editor should be addressed, "THOMAS MEEHAN, Germantown, Philadelphia," and Business Letters directed to "THE PUBLISHER OF THE GARDENER'S MONTHLY, Box 406 Philadelphia."

THE Publisher particularly requests that Advertisements should be forwarded so as to be received before the 20th of the month, or otherwise they cannot be inserted.

PUBLISHER'S CARD.

THIS periodical has now triumphantly passed over its most critical period, viz: its first year; and as it is soon to enter on another year, the Publisher, as an inducement to those persons who cannot afford to devote their time gratuitously to extending its circulation, begs leave to offer the following PREMIUMS.

☞ FOR EVERY CLUB OF ONE HUNDRED FULL PAID NEW SUBSCRIBERS, whose address and subscriptions are forwarded to the office, TWENTY-FIVE DOLLARS IN MONEY, or a WILCOX & GIBBS FIRST PREMIUM THIRTY DOLLAR SEWING MACHINE. This Machine was recently, after a severe trial and close competition, awarded the *highest premium* by the Franklin Institute, and is now the favorite with the ladies; doing its work rapidly and noiselessly, and not liable to get out of order, and very easily managed. For further description of it, see our advertising columns.

☞ For every Club of Fifty full paid new Subscribers, whose address and subscriptions are forwarded to the office, TWELVE DOLLARS AND FIFTY CENTS IN MONEY.

☞ For every Club of Twenty-five Subscribers, under the same conditions as above, SIX DOLLARS IN MONEY.

☞ For every Club of Five Subscribers, under the same conditions, ONE DOLLAR IN MONEY.

☞ Full paid Subscribers, received after the 1st of October, will be furnished with the October, November and December numbers of this year gratis, in addition to the whole of the copies for next year.

The Publisher hopes that all lovers of Horticulture will exert themselves to extend the circulation of the paper, so as to enable him to add still further to its value and attractiveness.

Gardeners out of employment cannot employ their time more profitably or usefully than in getting up Clubs.

NOTE LITTLE THINGS.

FEW men are aware of the importance of trifles. Many ambitious young men start into life determined to do something great, or achieve some distinction before they die; but they fail, and they fail because they despise little things. The alphabet of success consists of trifles, without the knowledge of them the great works of nature are a sealed book. A lazy man is often more of a philosopher than an industrious one. He hates manual labor, and his brain is often racked in the study of "how not to do it." Sometimes he succeeds, and the world is the gainer. One man—a paragon of industry—takes his riddle and goes to the sand heap. His determination is strong, and, while the muscles of his back sustain the weight, his arms impart the oscillating motion, and by "the sweat of his brow" the whole heap goes sorrowfully through the meshes. By the time he gets through, his body forms a figure which, by a lover of natural principles in landscape gardening, would be styled a graceful curve; but which a lady lover of manly beauty would deem any thing but handsome. But lazybones does not believe in hard work. He goes to his heap determined to mitigate the rigor of the primeval curse, and he succeeds. He rests his riddle on a forked stick, and see-saws without exertion. The habit of observation is a power in such a man; with a little training, he would become distinguished, perhaps take rank as a philosopher.

All our great men are distinguished in such trifles. One will spend a whole week in accurately describing every point in a new tadpole, even to the wriggle of its tail; and another would think a full year well spent if but a solitary fact in the anatomy of a spore of fungus was the sole result. We—the outside public—laugh at the infatuation, while we are actually reaping the benefit of their study of little things. Two thousand years ago there lived, in ancient Greece, a man called Thales. So great a reputation did he achieve for learning and wisdom, that his knowledge became a proverb, and in the old Roman empire no higher compliment could be paid to a meritorious pupil than to be compared to him. "*Plus sapil quam Thales*," wiser than Thales, has brought the smiles to many a young Roman's face; and what think our young readers was this wise man's great discovery? Why he simply noticed that when his shadow was ten feet long and his own height perhaps five feet or more, the heights and shadows of other things at the same moment of time bore the same relative proportions. And this was all—a simple fact which any one might have noted thousands of years before, but it was too trifling. Who would stop to take notice of such little things?

But "great oaks from little acorns grow;" and from this trifle a stream of knowledge flowed. His first application of the fact was to measure the height of the pyramids of Egypt, much to the amazement of Amasis, the King, and the learned men of the time, and subsequently the sixth proposition of the first book of Euclid, one of the most interesting and useful theorems to the practical geometrician, was built upon the fact. The blowing of a soap bubble, the rising of a tea-kettle lid, the flying of a kite, and the playing with a magnetic needle, have led to the most astounding developments in physical science, and the end is not yet.

We want horticulturists to profit by these hints. Thousands of facts are daily occurring to some one or other of our readers that would be of incalculable benefit, as positive knowledge, did not the observer think them too trifling. Horticulturists ought to produce a greater number of philosophers than any other art, as every branch of science can be made to serve its turn. Its influence that way has already been great, as it is a singular fact that nearly all our great men have ranked amongst the best patrons of gardening. Good gardeners are themselves noted for their general intelligence, and in Europe where there is a wide distinction between certain classes, the gardener who springs from the lower is generally the associate and companion of the other.

Sir Joseph Paxton is a well known instance of honors to a gardener. Originally a garden laborer in the Horticultural Society's garden at Chiswick, near London, he commended himself to the attention of the late Duke of Devonshire, while one day visiting Chiswick, by singular good taste in the arrangement of a bouquet, and was soon after engaged as gardener to the Duke for such commendable knowledge of little things. But his path to fame was destined to indicate still more clearly the habits of the man in his observation of trifles. The great World's Fair at London—the conception of which grand idea, too, by the way, is due to another horticulturist, J. Jay Smith, Esq., the talented editor of the *Horticulturist*—this grand idea was to be embodied, and all the architectural talent of Great Britain failed in inventing a proper building for the exhibition. Our gardener came to the rescue. In growing the great Lily of the Amazon—the *Victoria regia*—he noticed a singular peculiarity in the arrangement of the veins of its leaves, which gave them the peculiar strength they are famed for possessing. It was but a trifling fact. Many another would have looked, wondered a moment, and then forgotten; but to him it was a great idea gained, and he conceived the plan on the faith of the fact, of making the great Crystal Palace, which has since been, and will for ages be, read of in history as one of the wonders of the world. The poor gardener is now one of the "proud Barons" of England, and, as a member of the British Parliament, is one of the sovereigns who rules the world; and all owing, from first to last, to his habits of noting little things.

Dear reader, young friend more particularly, consider no fact beneath your notice. Value no one's "opinion," not that of even the editor of the *Gardener's Monthly*, any further than as it may serve you as a guide to positive facts. "Opinions" have been the bane of horticulturists. They originate the quarrels, the bad spirit, and the bitter feelings that some few writers indulge in occasionally; all of which may be avoided by a rigid endeavor to seek after facts. "And what would you do," once said a rigid duellist to an opponent of the code, "if a person told you to your face you lied?" "I should regard it as his opinion," was the reply, "and ask him to prove it. If he succeeded, I should deserve all I got. If he failed, then he would prove himself the liar, not me." Our literary duellists may profit by the anecdote, and, instead of preparing so much paper ball and pen-inspiring powder, look a little closer into "little things."

FLORAL DECORATION.

ALTHOUGH flowers are much more used for decorative purposes than formerly, yet their use might be greatly extended.

What, for instance, has a more beautiful and pleasing effect at an entertainment, than the decoration of the rooms, passages, and staircase with flowering plants in tubs and pots? Many persons who have large collections of plants, could, in this way, with little trouble and expense, add greatly to the beauty of their apartments. We are pleased to notice that several gentlemen in this city, who have conservatories connected with their dwellings, have lighted them with gas, thus affording at an evening entertainment a delightful and interesting retreat from the crowd and heat of the other apartments. Another very graceful use of flowers is in the decoration of dinner-tables at formal dinner parties; a pyramid bouquet of the hand size being placed at every plate. This is a very prevalent fashion in Europe at the present time, and is also becoming so in this country, particularly at Washington at the Presidential and diplomatic prandial entertainments. The supper-tables at balls or evening parties are very generally and profusely ornamented with flowers disposed in a centre piece or design composed of an immense number of small bouquets, which at the conclusion of the supper are distributed amongst the company.

Flowers might be much more used than they are for personal adornment. How seldom do we see natural flowers used in the hair? Yet how much more graceful is a plain white camellia than all the unmeaning and costly specimens of the jeweller's art! During the past winter we have seen some wreaths which were perfect models of good taste. They were made mostly of small and fragrant flowers, and were narrow in front, gradually increasing in size at the sides until they fell, so to speak, in a perfect shower of small flowers down the back of the neck.

Flowers have been for some time much used in Paris and on the continent at full dress balls and parties, for ornamenting the fronts and skirts of ladies' dresses, and produce a charming effect. They are arranged in small nosegays, sprigs or sprays, and sewed on at regular distances. For this purpose flowers should be selected that do not wither soon, or what the French call "*persistent*."

The opera gives full employment to our bouquet-makers during "*the season*," and the favorite prima donna is frequently in danger of being overwhelmed by the floral tempest which beats on her devoted head. In the language of a respected contemporary, we cannot but reiterate the wish "that these flingers of bouquets could know *a little* of the structure of a flower, and appreciate the glory which they cast away."

Flowers and evergreens are also much used in decorating churches and dwellings at Christmas, and in passing through our rural cemeteries one sees with pleasure the floral tributes of affection clustering around every tomb; and as the funereal procession passes us, we see the chaplet of white flowers thrown out into strong relief by the sable pall on which it is laid. We cannot close this article better than by adopting the beautiful language of Mrs. Hemans:

"Bring flowers, fresh flowers, for the bride to wear;
They were born to blush in her shining hair.
* * * *
Bring flowers, pale flowers, o'er the bier to shed
A crown for the brow of the early dead.
* * * *
Bring flowers to the shrine where we kneel in prayer,—
They are nature's offering; their place is *there*."

NOTES MADE ON RAMBLES.

Mr. CHARLES DOWNING, Newburg, N. Y. About the middle of July, we made a short call on our friend, Mr. Downing, the well known pomologist.

Newburg itself is a flourishing town, of about 12,000 inhabitants, situated on the west bank of the Hudson, about sixty miles from New York. Its chief dependence is on its surrounding agricultural population, and much of its prosperity is doubtless owing to its being one of the main feeders of the New York and Erie Railroad. The town is beautifully nestled amongst the hills that surround it, and which may here begin to assume the dignity of mountains—some of them being over 1200 feet above the level of the river. The buildings possess in the main peculiarly marked features, and, to one acquainted with the works of the late A. J. Downing, bear evidence that here in his own home his fine genius and taste were appreciated as highly as they are in all other parts of our great country. The beautiful dwelling he built for himself is now in the possession of —— Alger, Esq., and, by an opportunity kindly afforded us of a walk through the grounds, we were much gratified to find them maintain a high character for taste and keeping.

Mr. Charles Downing's place is about a mile from the business part of the town, and his grounds seem to be the terminus for all the lines of fruit—good, bad, and indifferent, that flow through the country, in the testing of which Mr. D.'s chief pride and pleasure seem to consist. We were too early to be able to note to any advantage any of the innumerable kinds of pear that Mr. D. cultivates, though Doyenne d'Ete was just about ripe, and which we find here as elsewhere maintaining the reputation of being one of our best Early Summer Pears. Zoar Beauty, an Ohio Seedling, was approaching maturity, and, if only equal in its character for good flavor to that of its singular beauty, will be a very popular kind. In the Grape line, Mr. D. seemed to have every kind together to fairly test their conflicting claims.

The Currants were about in their prime, and in Mr. D.'s rich, light soil seem to thrive much better than is usual, though the altitude and moist atmosphere of a wide river will, of course, be also in their favor. The Caucasian and La Versaillaise seemed here very much the same thing, as did also the Black Naples and Common Black. A new white kind from France, called Attractor, had a very promising appearance. The Gondoin is one of the sweetest and best whites grown, and was here in perfection.

Mr. D. spends much of his time in raising seedlings. The Downing's Seedling Gooseberry is a well known result of his skill in improving our native kind, known as Houghton's Seedling; for there is little if any difference between it and the wild form known botanically as the *Ribes rotundifolium*, or round, smooth leaved Gooseberry. This variety was the produce of one thousand seedlings. Mr. D. has four others, very different from each other in color and appearance, and, to our mind, equally good and worthy; but our friend, with a characteristic modesty worthy of imitation, "does not think them good enough to name," though in this instance we differ from him.

We must not forget the Everbearing Mulberry, which was then loaded with ripe fruit, and had also an abundance in embryo for the supply of many weeks in the future. As a fruit for kitchen use, we were enabled, by the kind hospitality of Mrs. Downing, to speak of it in the highest praise. With an equal knowledge of the culinary art bestowed on it, we are sure that the daintiest epicure, after tasting thereof, would go on his way rejoicing.

The many beautiful kinds of herbaceous plants, which, in the rage after the French fashion of planting in masses, have become so sadly ill-used, and in many cases neglected, have found a friend and protector in Mr. Downing; and, as if reciprocating the kindness of his heart, they were blooming in the wildest luxuriance. We noted particularly, as well worthy the little care they ask for, Monarda Kalmianum, Pentstemon Wrightii, Callirhoe digitalis—another name for Nuttalia papaveracea, which is not after all its two names very different, if at all, from Malva—double white Lychnis chalcedonica and Lobelia aurea, a trailing kind with yellow flowers. Amongst the "bedding plants" were some pretty orange colored Portulacca, and two very free flowering shrubby Calceolarias—Prince of Orange and Beauty of Montreal, Lady Seymour Verbena, and Cuphea Danielsiana.

One of the finest specimens of *Caragana arborescens* we ever saw—about 12 feet high—is here, and must be a beautiful object when covered in early spring with its beautiful yellow pea-shaped blossoms. A *Magnolia conspicua*, 8 years old, had 2000 blossoms on last spring. One need not wait an age to see this fine plant in perfection. As a surprising instance of rapid growth, we may also mention an Elm only 20 years old, that was about four and a half feet in circumference.

THE WEEPING LARCH.

THIS plant is commonly considered in nurseries as a variety of the common American Larch, but when seen in fruit, and the cones observed to be nearly as large as the European species, many doubts often occur as to its identity. It is not generally known that in our mountains are found two distinct forms, which with some botanists have been made two species.

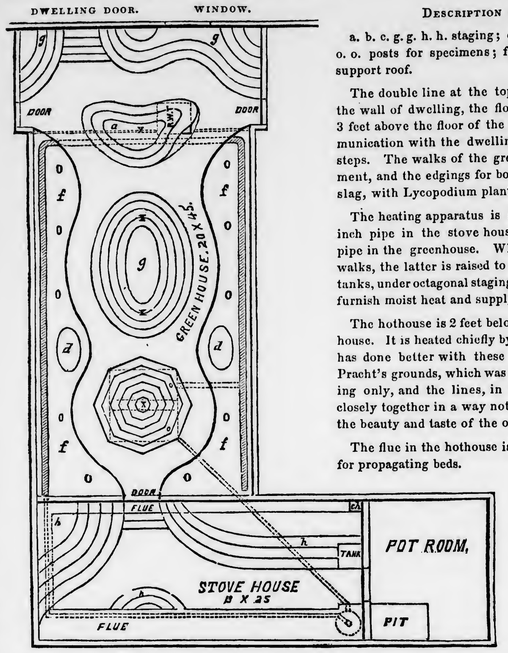
The small fruited is the kind most generally seen in nurseries, and was called *Larix microcarpa* by Lambert, and is commonly known as the Red American Larch. The large fruited—which is also the weeping kind—was named *L. pendula* by Salisbury, and is called the Black American Larch. Gordon says this last is the "Tamarack," but this is a mistake. The Red Larch is the variety so known.

European botanists still retain them as distinct species, but Dr. Asa Gray considers them but as varieties of one form, and adopts for both Michaux's name of *L. Americana*. To get the best effect as a Weeping Tree from the Black Larch, it should be grafted high up on the strong growing species. We recently noticed a pretty specimen with cones at Mr. Sargent's at Wodenethe.

CRYPTOMERIA AND HOT HOUSES OF A. C. PRACHT, ESQ., BALTIMORE.

WE have, in an early number of our journal, noticed the fine and peculiar specimen of this beautiful hardy tree on the grounds of A. C. Pracht, Esq. At our request, Mr. Pracht has obligingly furnished us with a photograph, from which the annexed engraving has been taken, and we are sure our readers will think with us, that it is one of the most beautiful things that has appeared in our paper. Probably there is not a finer specimen in the States.

We have also before alluded to the excellent arrangement of Mr. Pracht's Plant Houses. We now present our readers with a ground-plan, showing the details.



DESCRIPTION OF PLAN.

a. b. c. g. g. h. h. staging; d. d rustic flower-stand; o. o. posts for specimens; f. f. borders; x. posts to support roof.

The double line at the top of the plan represents the wall of dwelling, the floor of which is elevated 3 feet above the floor of the greenhouse. The communication with the dwelling is by a door and a few steps. The walks of the greenhouse are laid in cement, and the edgings for borders formed of foundry slag, with Lycopodium planted between.

The heating apparatus is a conical boiler, with 2 inch pipe in the stove house connected with 4 inch pipe in the greenhouse. Where the pipes cross the walks, the latter is raised to cover pipes. Two open tanks, under octagonal staging, and connected together, furnish moist heat and supply the boiler.

The hothouse is 2 feet below the level of the greenhouse. It is heated chiefly by the flue. Our engraver has done better with these than in the cut of Mr. Pracht's grounds, which was taken from a rough tracing only, and the lines, in some instances, run so closely together in a way not at all complimentary to the beauty and taste of the original design.

The flue in the hothouse is covered with soapstone for propagating beds.

NEW NOTIONS—RINGING AND PUDDLING.

WHEN we sometimes find a party who has, perhaps, half a dozen kinds of fruit of poor quality in his orchard, going into ecstacies over some foundling as the "very best he ever saw," and wondering why the world does not join in with him in pronouncing it the "best ever grown," we are most of us inclined to smile at the fun. It is well worth while enquiring whether we do not sometimes make ourselves as ridiculous in "new ideas" as our friends do in new fruits. Very often ideas and practices, so common amongst American cultivators, that it would be a chance if even every tenth man we meet had not heard of it,—this common fact gets into a foreign periodical, and straightway it comes back to us as one of the new discoveries of the age.

At the present time the ringing of the Grape vine is one of the wonders; for, lo! has it not been recently alluded to in an English paper! We will not speak in the indicative for other cities; but, so far as Philadelphia cultivators are concerned, it is, in many instances, a regular practice. To our knowledge, large and magnificent Grapes have been annually exhibited for the past ten years before the Penn. Hort. Society, produced by ringing, to the wonder of the children and outsiders generally.

Thinking that we could make this note to better advantage, with positive facts before us, we sent to Mr. Felten, of this place, to know if he had any so treated, as from his well known skill in fruit growing for market he would be quite likely to have. The answer is now before us in the shape of half a dozen bunches of Isabellas, of such size and beauty that if any one could tell them from Black Hamburg at ten paces, we should like to see him placed on some of our fruit committees. The quality of the Grapes, however, though good, are certainly not improved, nor has any bunch we ever tasted so grown been equal in flavor to one naturally produced.

Much of this, however, depends on the time of ringing—the later it is deferred, so long as it is not too late to increase the size of the berry, say up to the time the Grape is about to put on its sable color—the sweeter does it become.

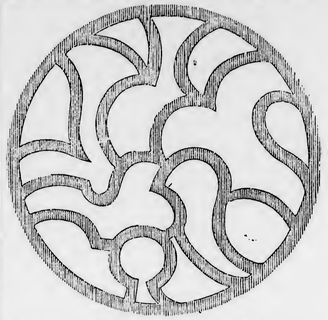
Another "novelty" is puddling the roots of trees. Make a hole in a clayey piece of ground, mix a little manure, cow-dung, for instance, add water to the consistency of paint, and then dip in the roots of trees before sending them away and re-planting. Such is the receipt, and so novel, to be sure; for, lo! was it not written, &c.? and straightway the tablets are carried to the uttermost ends of the earth. The *Scientific American* even gets a glimpse of the new philosophy, and transfers it to its columns, and we all hold up our hands, and look at each other in blank amazement.

To be sure, every nurseryman here of any note practices and has practiced it for years and years; but what then? Can any new idea come out of America?

All this is a good deal our own faults. Our practical men, and men who observe, seldom put pen to paper, and make a record of what they know. They are too intent on "going ahead" to care much what kind of a general reputation their profession stands in before the world. Could the knowledge and intelligence diffused throughout our country be so methodized and brought to light, as it has been in others, though in some points we should certainly be found wanting, yet on the whole the result in our favor would astonish even some of ourselves. But a brighter day is dawning, and we hope for better things.

PLAN FOR A ROSE GARDEN.

ROSES require to be bedded by themselves, and o have peculiar kinds of forms set apart for them, so as to enable their admirers to get in and about them to examine, compare notes, and see all their little charms and beauties. The annexed pretty little design is from the *Cottage Gardener*. The original plan



is sixteen yards in diameter; has a clear space thirty yards wide around it; and is in a hollow, so as to be well seen. It is laid out in sod, so as to have grass walks between the beds, which plan is much the best for a Rosary. Where objection to the labor of keeping grass walks neat is made, box edging and gravel walks may do; but the box is liable to breakage while young by the frequent crossings examinations of the pretty flowers invite from fair fingers.

CRAB APPLE CHAMPAGNE.

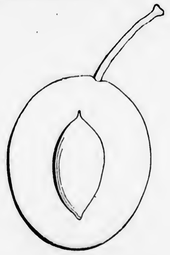
"A WINE Drinker," of Cincinnati, in a short note, writes that "from the Hughes Crab Apple, a sparkling wine, well worthy of the name of Crab Apple Champagne, may be made." Gooseberry Champagne is world renowned, and, with so vast a variety of subjects from which to make *sham* pain, we are afraid our old friend "Chemist" will prophesy in our next a vast amount of real pain.

New and Rare Fruits.

RICHLAND PLUM.

IN an early number of our paper, we alluded to this variety and the singular reputation it had acheived in its locality, of being avoided by the curculio. We have recently received a box of fruit, and, curious enough, nearly the whole of them are full of the marks of the insect. The inference, therefore, is that this fruit is more capable of resisting the injury than other kinds, and capable of coming to perfection in spite of it. An amateur of our acquaintance, of good observing powers, insists that the curculio does not produce rot; that it is, in fact, a separate disease, and if he saw these specimens, he would doubtless feel confirmed.

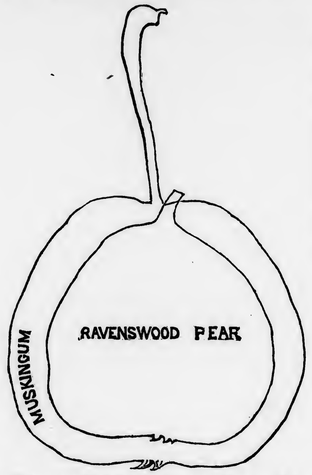
However, the Richland is a good market fruit. Hundreds of bushels have been for sale in the Philadelphia market this season. As it is little known, elsewhere, we append a cut and description. The specimen from which our cut was made, was one of eighteen on a branch six inches long, showing its habits of productiveness.



Fruit of medium size, ovate, suture scarcely perceptible. Stalk ¾ inch long, very slender, inserted in a slight cavity. Skin greenish yellow, covered with thin bloom, becoming of a brownish purple on the sunny side. Flesh yellowish green, firm, adhering somewhat to the stone. Flavor agreeable, but second rate.

RAVENSWOOD PEAR.

IN the Proceedings of the late Pomological Convention, page 196, is a notice of this pear. We have engaged our friend E. F. Erhard to send us a few specimens, and find them so excellent, that we have made the annexed illustration.



The original tree was found growing in a wood near Ravenswood, and is a strong and upright grower and good bearer.

It is a small fruit, with yellowish green skin, covered with numerous small brown specks. The flesh is slightly aromatic, with a rich vinous flavor. Ripe middle of August.

MUSKINGUM PEAR.

ABOVE with the Ravenswood we give a cut of this, which is becoming very popular in the North. Further South it loses its rich, juicy character, and becomes mealy and dryer.

Mr. Chitty, of New London, Conn., from whom we received the specimens, says of it:

"It is esteemed by many here as little, if any thing, inferior to the Bartlett. Downing, in his last edition, gives it a very good character, but does not give its origin or history. Elliot places it among those unworthy of cultivation, which leads some to suppose that there are different varieties under the same name, or else the fruit must vary greatly in different localities. The specimens I send are only ordinary ones in regard to size. They were grown on the Perry stock, and I am informed that the original grafts were procured from Marietta, Pa. I hope you will get the specimens in good condition, and any facts you may possess in regard to this pear will, doubtless, be acceptable to many readers of the *Monthly*. Yours truly, H. E. CHITTY."

The description in Downing accurately describes the specimens before us, except, perhaps, it may be said to be very juicy.

EUREKA GRAPE is a variety found on the grounds of Mr. W. R. Prince, of Flushing, Long Island, New York. Mr. Prince informs us that it is a very strong grower, hardy, and free from mildew so far, and the fruit in appearance as handsome as any foreign grape.

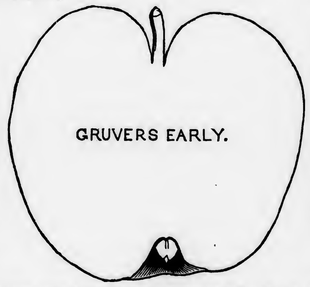
THE MATHER PEAR.

THIS is described in the *ad. interim* reports of the Pennsylvania Horticultural Society, and quoted in Downing, with the following description: Fruit below medium, obovate. Skin red, with occasionally a mottled cheek, and russeted around the stem, which is obliquely inserted by fleshy rings without depression. Calyx medium; basin very small. Flesh a little coarse, but buttery. Flavor delicate and pleasant. August.

We have received some specimens of the original tree from our friend S. W. Noble, on the farm of John Mather, Jenkintown, Pa. From them it appears the above description is inaccurate. The stalk is depressed in the insertion, as our cut represents; while the skin rarely, if ever, becomes red. In our specimens it is of a clear light yellow, much resembling Dearborn's Seedling, It is, however, rather larger than this well-known kind, and being equal to it in quality, is on that score worthy of attention.

GRUVER'S EARLY APPLE.

OF the many seedling apples we have received from our friends in the interior of Pennsylvania this season, this is one of the best. It originated on the farm of Mr. Mayers, in Springfield Township, but is very generally disseminated under the name given. Though not better than the Red Astrachan by any means, it is sufficiently good of that class to be worth propagating.



Skin greenish white on the sunny side, having a beautiful blush tint, and usually covered with deep rosy streaks. Flesh white, fine grained, mealy, and of good flavor. August.

NEW ENGLISH STRAWBERRY, OSCAR.—The *Cottage Gardener's* report of the British Pomological Society says: "The *Oscar* is a large fruit, ovate and angular, and sometimes wedge-shaped. The seeds are rather large and deeply imbedded. Skin dark shining red, assuming a blackish hue when it is highly ripened. Flesh red throughout, very firm and solid, juicy, and richly flavored. It ripens four or five days after *Black Prince*. This was considered a variety of first-rate excellence. Its great recommendations are its earliness, the extreme firmness of its flesh, which enables it to bear carriage well, and to preserve its freshness for several days after being gathered, and as being of first-rate flavor among the *Keens' Seedling* race. It was ascertained by comparison to be a superior variety, in these respects, to *Sir Harry:* and the foliage which was exhibited showed that the plant is a robust and healthy grower, while it was stated that it is also an abundant bearer. The members present having each given their opinion, it was pronounced to be a variety highly worthy of cultivation, and was adjudged the prize of ONE POUND. We may state that the fruit received from Mr. Bradley, had been gathered some days, and while the stalks and calyx were quite withered, the fruit remained quite plump and firm, and preserved all its flavor.

TAYLOR GRAPE.—From Mr. Samuel Miller, a small white variety of the Clinton section apparently, with thin skin, little pulp, and very large seeds. The flavor was quite pleasant, but not, we think, equal to the Rebecca, but, of course, it would be unfair to make a general comparison from a single specimen partially dried. It is a true native, having been found in a wood.

ATHLETE STRAWBERRY.—We missed the opportunity of seeing this in fruit last season on the ground of the raiser, Dr. W. M. Uhler, but we hear it highly spoken of by all who saw it. One of our friends assures us that some of them the past season have measured six inches in circumference.

SCHÆFFER'S EARLY APPLE, from Lehigh County, Pa., resembles Early Strawberry, called Richard's graft in the Northern States. It is rather smaller, skin paler, and is well distinguished by the very small and closed calyx. Though an excellent apple, judging from the specimen sent, it so much resembles other kinds in every respect, as not to be worth naming and disseminating.

THE KING GRAPE is described in the *Horticulturis* as a new white grape of excellent quality, hardy about Rochester, where it originated. From the description, we suppose it to be a seedling from a foreign kind.

NABOURS PEAR.—We have thus far been unable to find out where or when this pear originated, with any degree of certainty; it seems to have come from South Carolina into this section of the country, and is pretty extensively disseminated over the State of Georgia. Size from medium to large; form elongated turbinate; stem from one and a half to two inches in length; basin shallow; calyx of medium size; color greenish yellow, thickly covered with grey russet specks and tracery; flavor buttery, juicy, and sweet; flesh white. Ripens during September. Quality nearly best. Tree a vigorous grower on either pear or quince stock; shoots stout and greyish purple in color; leaves very large, coarse, and nearly round; in appearance, the tree resembles the Rostiezer very much.—*J. Van Buren, in Horticulturist.*

NANTEHALEE APPLE, &c.—As we had the honor of naming the Apple with the above name, it may not be amiss in us to give our reasons for the selection. In the first place, the specimens of fruit kindly sent us by Dr. Baldwin of Montgomery, was very beautiful, being of a translucent waxy yellow color with a very faint blush on one cheek, hence we deemed the name an appropirate one, Nantehalee, being, when rendered in our vernacular, Maiden's Bosom.

2d. As a large portion of our seedling fruits have been derived from the various tribes of Indians who in times past inhabited the country we now occupy, we have thought it but right to attach either the names of places where they originated, the names of the originators when known, or such words or terms used by them as appeared appropriate, not only ourselves, but to others who have been engaged in bringing to light our Southern fruit, and amongst all, none have made larger or more valuable accessions than our worthy friend S. McDowell, of North Carolina.

It may not be amiss in us, as we are on the subject of Indian names, to give the history of another of

our renowned Apples as related to us by Mr. McDowell. *Junaluskee;* "The original tree of this variety was owned by a Cherokee Chief of the above name, residing in Macon or Cherokee County, N. C., we do not now recollect which; when the State purchased the right of the Indians to this portion of the territory, Junaluskee refused to part with his lot on which grew this favorite tree; and to induce him to part with it, the Commissioners or those having the matter in charge, agreed to allow him fifty dollars for his Apple tree."

Nantehalee is also the name of a beautiful valley and tributary stream of the Tennessee River, which rises in Macon County, N. C. A more wild, romantic and picturesque spot cannot be found within the United States; that is, if mountains, rocks, gorgeous flowers, and brawling and sparkling waterfalls, thrown together in the most amiable confusion can form one. —*J. Van Buren, in Southern Cultivator.*

New Blackberry.—The *Homestead* says: "The *Holcomb* is a variety introduced by Mr. E. A. Holcomb of Granby. It ripens earlier than the others, and delights in shady places. The fruit is abundant and well flavored, and continues through the month of August.

New Foreign Grape.—The *Chasselas Napoleon*, a large and beautiful white Grape which I noticed last year, is well worthy of being mentioned again, and it is the finest variety in this Exhibition, says a French correspondent of the *Cottage Gardener.*

Another Promising Seedling Strawberry.—Chancy Miller, of the Church Family of Shakers in Watervliet, presented us last week, a basket of strawberries, from a seedling raised by E. A. Buckingham, of the same family, with which we are so well pleased, and with his account of its productiveness, that we rode out to the Shakers to examine it. We found the plant a very vigorous grower, and fully equalling Wilson's Albany in productiveness, while the berries were of a larger size and brighter color, but less solid, and not so acid as the Wilson. Should it, upon further trial in different localities, fulfil the anticipations excited by its present appearance, it cannot fail to be a valuable addition to the number of our really choice varieties. The plants, we believe, will not be for sale until after another year's trial.—*Country Gentleman.*

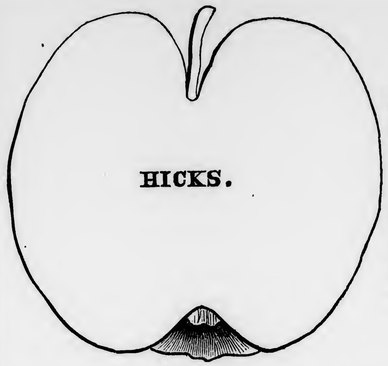
Oskaloosa Apple.—Mr. James Smith, Chairman of the Fruit Committee at the Iowa State Fair, thus speaks of this variety in the report:

Of the Oskaloosa, Mr. Seevers, nurseryman, says: "This is a seedling from Pennsylvania, introduced here by Mr. Fletcher, of this place. I had trees of this sort of every age, from one year in the nursery to bearing trees in the orchard; but not one of them was the least affected by our memorable winters—the wood and bark were cut, not revealing the slightest discoloration. The tree is a moderate grower, forms a handsome head, and is an early and good bearer. Fruit medium to large, round, somewhat flattened; color yellow; flesh quite juicy, mild sub-acid, and excellent. In season from November to April. If confined to one variety, with my present experience, I would without hesitation take the Oskaloosa."—*N. Western Farmer.*

Gen. Totleben Pear.—Mr. A. Papelieu describes it as follows:—Size large, about four inches long and three in diameter. Pyriform shape; skin yellow, traced, and spotted with brown. Flesh rose color, very melting, slightly gritty, perfumed; juice very abundant and very sugary. Tree of medium vigor, productive; growth pyramidal; wood, brownish red; buds short; leaves ovate, lanceolate, finely serrated.

It was raised in 1849, by M. Fontaine of Gheling, and produced fruit in 1855. It ripens from December to February.

The fruit resembles somewhat a large Marie Louise. Its rose-colored flesh is peculiar, like the Josephine de Malines. It is a very handsome pear, and from its lateness will be a fine addition to our winter varieties.—*Horticultural Magazine.*



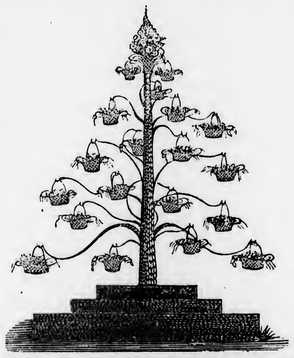
HICK'S APPLE.

This variety is noticed by a correspondent in another part of our journal. It is a showy fruit, and sufficiently good to become popular. We give below a description that we have made from the specimens before us.

Fruit large, roundish oblong, flattened on the crown. Skin when ripe, fine yellowish green, frequently striped with crimson on the sunny side. Calyx coarse, in a wide plaited basin. Stalk three-quarters of an inch long, not projecting above the fruit. Flesh yellowish white, coarse, sweet, mellow, and rather dry. Apparently an excellent market fruit.

Questions and Answers.

Floral Design. Lady Subscriber, Niagara, N. Y.—We annex a design that will make a pretty object for an ornament for public fairs and festivals, and also serve a good utilitarian purpose.



The frame is made of wood, and the spiral arms of wire. These are covered with nice green moss from the woods. At the ends of the arms small baskets are suspended and filled with flowers, which at the end of a fair can be sold separately, or at the end of a party presented to the guests. These baskets are made of wire, and covered with moss, which is sewed on. The base is covered with moss, which is fastened on by carpet-tacks, which are tacked in about one inch apart, and green cotton drawn backwards and forwards so as to become hidden by the moss, and still retain the moss in its place. We did not get your inquiry in time enough to enable us to make the drawing and get it engraved for our last issue.

Palm.—In Tennyson's recent poems, "Idyls of the King," occur the following lines:

> "A robe of samite price, that more express'd
> Than hid her, clung about her lissome limbs,
> In color like the satin shining palm
> On sallows in the windy gleams of March."

Now, I understand "sallow" to mean a willow, but will Mr. Meehan have the kindness to explain what is meant by "palm," and greatly oblige an admirer of the *Monthly?* Elaine.

["Palm" alluded to here is the male flower of *Salix caprea*, or Goat Willow. It is of a beautiful golden color, and has a delicious fragrance. In some Catholic countries it is distributed to the congregation on "Palm" Sunday, from whence its name is doubtless derived; but how it first came to be employed as such,—whether or not it is supposed to be the kind alluded to by the ancient writers,—we are unable to inform our fair correspondent.—Ed.]

New Weeping White Pine.—In our February issue we gave a cut of the new *Pinus strobus pendula*, which we obtained through one of our correspondents. The *Deutsches Magazin* of Stuttgard, as we learn from the *Horticulturist*, furnishes an illustration evidently taken from the specimen a few years older, from which we gather that it is well sustaining the high character we formed of it at the time.

H. N. S. No. 21.—The pear you send us is evidently an unnamed kind. It is, however, too near the Bartlett, and yet inferior to that standard variety, to be worth naming.

Albany Seedling Strawberry.—*Hovey's Magazine* takes exception to our remarks, that the Albany has worked its way into cultivation without comparatively extra puffing; will not advise its extensive culture without some better evidence than it has yet had, and presents, on the other hand, the superior claims of Hovey's Seedling. Our experience on this latter point has already been given at page 105 of our journal; and in regard to the first, we have only to say, that so far as this locality is concerned, until Mr. Sherwood exhibited the fruit here two seasons ago, though it was already in the hands of others for two or three years before, we question whether one in a hundred of those who fruited it last year ever heard of it.

Entire-Leaved Strawberry. A. S. Fuller.—Enclosed you will find a strawberry leaf of one of our seedlings, which I have christened *Fragaria unifolia.* It is no freak of one leaf, but the entire plant is the same. We have two seedlings from one seed-bed like this. Do you know of any variety like it?

[We have never seen a variety with an entire leaf in the strawberry, though the phenomena is common with other pinnate-leaved plantt. The Ash and the Service Berry (*Pyrus torminalis*) are instances. There is a strawberry with five leaves raised by Myatt, and called Quinquefolia.

Apples. J. Royle.—No. 1 is Gravenstein, No. 2 Æsopus Spitzenburg, 4 Yellow Bellefleur, 6 Baldwin, 7 Porter, 8 Swaar, 10 Pennock, 11 Smokehouse, 12 Roxbury Russet, 15 Hawley, 16 Yellow Bough, 17 Newtown Pippin [poor specimen], 18 Fameuse. 3, 5, 9, 13 and 14 we do not recognize with certainty. The Pears are: 1 Beurre Bosc, 2 Dix, 3 Flemish Beauty, 4 Giffard, 5 Glout Morceau, 6 Crassanne, 7 Onondaga, 9 Gouboult. 8 appears to be Beurre Langelier, but is not ripe enough to say decidedly. If your Grape is not Isabella, as your friend says, it is not sufficiently distinct to be worth another name.

Ground Cherry. B. Losee.—We have a plant in cultivation here, commonly called Ground Tomato, Ground Cherry, or Cape Gooseberry, bearing a small fruit the size of a cherry, and yellow. Used for preserving. It appears to be of the nightshade family. Its fruit is at the axils of the stalk, a single fruit wrapped in a husk like which covers the fruit. Please give its true name. [*Physalis tomentosa.*—Ed.]

Knots on the Plum. Subscriber, Pittsburg, Pa. —Our own *opinion* has always been, that these are caused by some species of fungus, similar to those which are known to originate the knots on the Cedar, Quince, and Thorns. Entomologists, however, believe that they are caused by the puncture of the Curculio on the young wood. The finding of the larvæ in the "knots" is no proof, as the larvæ of many other kinds of insects have been found in them. However, it is a well-ascertained fact, that similar knots are produced in some trees by some species of insects. In the Black and Pin Oaks, for instance; and it is quite possible the Plum knot may be traced to the Curculio, after all. If we could only see his marks on the wood! Well, it is said some of our best entomologists have already traced him that far; but we can give our correspondent no further information.

Acknowledgment. Mr. Isaac Pullen, Hightstown, N. J.—Our thanks are due to Mr. Pullen for his reference of the readers of his recent Catalogue to the *Gardener's Monthly* for information on horticultural topics. Our Nursery List being published freely, as information for our readers, does not, of course, entitle us to a corresponding effort on the part of our nursery friends to make our journal known; so that where it is done, we feel obliged.

Democrat Pear. From Mr. J. G. Youngken.—We have already figured this variety. The present specimens are larger than those from among which our cut was made, and the quality is in every respect up to what we have already said of it. We have on hand some specimens of Seedling Apples, and other fruits from the same "unknown" region of country—German Pennsylvania—which we will report on as they ripen.

Another Letter from Chemist.—We are not displeased with our unknown correspondent's criticisms. On the contrary, his present letter contains so very many hints that we are sure will please and interest our readers, that we are glad our remark sent him again to his racy pen. In our next we will give his communication in full.

E. B. J. Madison.—Pot Vines, of the size and age you speak of, would probably be about $2 each. The prices, however, differ with different growers, in different cities, and according to the quantity and the quality of the stock. Any of the parties advertising in our columns could give you more precise information. Mr. Fergusson and Mr. Bright both advertise them. We think any of the principal nurserymen have, or could get for you Delices d'Automne Strawberry.

Common Names of Plants.—I am acquainted with many kinds of common names, but not so well with the *botanical.* What work on flowers, trees and plants would you recommend me to get? and where can it be had? That will help me in this respect.

Truly, yours, B. F. Transon.

[We know of no work that will help you. Common names vary in every town. What is "Sweet Absalom" in one town is "Sweet Alyssum" in another, and we know at least one nurseryman who has been puzzled by an order for "Horse Leeches." Ed.]

Rose Cuttings. Novice, Newport, Rhode Island. —They should be taken from nearly ripe wood, made into lengths of two or three eyes, according to the length, cutting the shoot cleanly and closely under an eye. They should be set one-third their length in either sand or sandy soil, and the pots or boxes set in any airy or shady place where they will get plenty of air, but will not get dry enough to require frequent watering. Under the shade of shrubbery, or the wall of a house, is a very good place. Nurserymen who propagate largely, strike them in frames from which the frost is carefully excluded, but which are never allowed to become warm or damp. Close confinement and dampness are fatal to rose cuttings. *Tuberoses* for forcing should be potted singly in five or six inch pots, preserved from frost, and in every other respect treated as Hyacinths.

Bigert's Everbearing Mulberry.—A friend sends us some specimens under the above name, which he says continues in bearing from June till frost. It is very much in size and appearance like Downing's Everbearing, but the leaves are very different. If it continues bearing "till frost," it will be an acquisition. Please send us a few along about the first week in October, when we can form a better opinion of their merits.

Apple Seed. R. Reeves.—They are obtained from the pomace of a cider mill. The cheapest way to separate the seed is to put the pomace into shallow wooden boxes, having one of the four sides a few inches shallower than the other, and then work it under the breast work of a small dam over which water flows into the box; the pomace will be worked over the shallow edge, and the seed remain at the bottom.

Where running water cannot be had, set a barrel of pomace under a pump, and while one man keeps the pomace stirred with a rake or dung fork, let the other pump the water. If pomace is plenty, one man should clean a bushel per day.

Schuman Pear.—We have received from a friend fine specimens of a fruit, known under this name, in Bucks County. It is a handsome fruit, said to be very productive, but is rather coarse and pasty, and we should not think it worth dissemination, as there are so many better ones like it.

Selected Strawberries.—We have received from Mr. Prince a communication read by him before the American Farmers' Club, in which he recommends as the best for field culture, where they ought to be allowed to run together, Scarlet Magnate, Ariadne, Diadem, Eclipse, Minerva, Imperial Scarlet, Perfumed Pine, Hovey, Globose Scarlet, Florence, Scarlet Climax, Prince's Globose. Six staminate for field culture—Scarlet Prize, Sirius, Wilson's Albany, Primate, Montrose, Victorine. We believe the whole of these, with the exception of the Hovey and the Albany, are seedlings of Mr. Prince's own raising, and it is quite remarkable that the whole lot should be better than any of the hundreds now in cultivation. This illustration of the ease with which good Strawberries can be raised should caution Strawberry growers against speculating in new kinds until they have been proved to be of the highest excellence.

Books, Catalogues, &c.

Descriptive and General Catalogues.

J. T. Blois, Jonesville, Mich. Mr. Blois has about 20 acres in cultivation, which is good for that part of Michigan.

Isaac Pullen, Hightstown, N. J. Mr. Pullen's prettily got up Catalogue is particularly rich in fruits.

F. A. Mauge, Augusta, Geo. Descriptive Catalogue of Roses. 630 are described.

B. F. Transon, Brownsville, Tenn. Fruit Trees.

Hatch & Co., Vicksburg, Miss. One of the oldest Southern nurseries. Established in 1841, and carried on with energy.

Bissel & Salter, Rochester, N. Y. Hardy Native Grape Vines. It is beautifully illustrated, and is valuable for reference.

C. J. Ryan & Co., Rochester, N. Y. A pretty Catalogue, got up with care, and exhibiting rare accuracy.

S. Wood & Son, Smithfield, O. One of the oldest nurseries in the State.

J. W. Jones & Son, Chatham Four Corners, N. Y. List of Seeds grown.

J. Van Buren, Clarksville, Geo. Mr. Van Buren gives much attention to Southern fruits. His Catalogue is principally devoted to Fruits.

Howsley & Burr, Leavenworth, Kansas. We are very much pleased with the show of Horticultural spirit in the far West, which so fine a Catalogue indicates.

Samuel Miller, Lebanon, Pa. Grape Vines, Strawberries, and Small Fruits.

James Ford, Princeton, Ind. Sheet Catalogue.

Smith & Hanchett, Syracuse, N. Y. Nos. 2, 3, and 4. Fruits, Ornamentals, and Greenhouse plants, &c., &c.

A. Fahnestock & Sons, Toledo, O. Fruit Trees. A large Catalogue of 43 pages, on which much care has evidently been bestowed. The nurseries comprise 200 acres.

C. J. Mills & Co., Rochester, N. Y. Fruit and Ornamental Trees. The nursery occupies 40 acres.

Brooklyn Horticultural Society. Sixth Annual Address of the President, J. W. Degraw, Esq.—We have perused with much pleasure, and perceive by it one of the secrets of this Society's success.

Wholesale Catalogues.

Parsons & Co., Flushing, N. Y. One of the fullest we have received, occupying 15 large size duodecimo pages.

J. L. Darlington & Co., West Chester, Pa. Amongst other things, we notice Quercus macrocarpa, and we are anxious to see the oak "patronized."

Daniel Mahoney, Saco, Maine. Principally Evergreens and Flowers.

Williams, Ramsden & Co., Dansville, N. Y. Fruit Trees and Stocks.

S. Moulson, Rochester, N. Y. The kinds of Fruit offered wholesale are separately named.

A. Frost & Co., Rochester, N. Y. A very complete Catalogue. The choice of Foreign Grapes is very extensive.

Lewis Ellsworth & Co., Naperville, Ills. A first-class Catalogue, including Bulbs, Bedding plants, &c.

T. C. Maxwell & Bro., Geneva, N. Y., "call particular attention to their Cherry and dwarf Pear trees."

William Day, Morristown, N. J. Peach Trees and Evergreens are strongly presented.

D. S. Manley, Buffalo, N. Y. Amongst other good things, Magnolia acuminata by the 100.

Wright's Colored Plates of Fruit for Nurserymen, Syracuse, N. Y.

O. B. Maxwell, Dansville, N. Y. Particular attention given to Fruit Stocks.

E. C. Frost, Havana, N. Y. Fruit and Ornamental Trees, Stocks and Seeds.

Ingersoll, Murphy & Co., Dansville, N. Y. Particularly heavy in Seedling Stocks.

A Braman, Ithaca, N. Y. Principally Fruits.

S. T. Kelsey & Co., Great Valley, N. Y. Principally Small Evergreens and Ornamental Trees.

James Pentland, Baltimore, Md. Trade List of Roses.

Communications.

HICKS APPLE, AND OTHER NOTES.

BY ISAAC HICKS, NORTH HEMPSTED, LONG ISLAND.

I ENCLOSE a few apples of about an average size. They are the last gathered, and I have had many larger ones. I think their value will be in their good quality generally, their thrifty growth and productiveness. I have three trees, grafted four years ago, 3 to 4½ inches in diameter. I have sold over 4 bushels to Brooklyn, besides eating and giving away many more. The Summer Paradise, Alexander, Northern Spy, Jonathan, Jersey Sweeting, older trees from nursery, have not produced or grown one-fourth as much, and growing near them. But I know too much, by my disappointments in procuring highly recommended apples that proved worthless, to recommend any new apple to other sections only on trial. This new variety may meet the condemnation that Elliott gives the Willis Sweeting, "unworthy of cultivation," when it originated here seventy years or more ago, and is the very best baking sweet apple we have, but not good for the desert until the last are ripe.

[WE found the fruit remarkably showy; and though not first-rate in quality, yet so very good as to deem it well worth a cut and description, which we give this month under our regular Fruit column.—ED.]

PERPETUAL STRAWBERRIES.

BY E. B. QUINER.

MADISON, WIS., August 6, 1859.

Mr. Meehan:

DEAR SIR:—I noticed, in a recent number of your "*Monthly*," an article in regard to "Perpetual Strawberries." I wish to mention a fact which may possibly enable your wish to be realized, at least by the propagation of the Strawberry, and fruiting it during the summer and fall with short intermissions.

Last August I discovered a half dozen plants in my Strawberry bed in bloom. On examination *the blossoms were found to be on the runners made the preceding month.* I watched them closely, and succeeded in getting a few berries, which were nearly the usual size of Early Scarlets. Hoping to secure a permanence in this second bearing quality, I sowed the seed, and have now plants growing from the same. Now I wish to know if this bearing upon the runners of the same year is characteristic of any variety of the Strawberry? How is it with Delices d'Automne? And what chance is there of perpetuating this extra bearing quality? Will this not prove the only manner of procuring perpetual Strawberries of the running sorts. The Alpines, I know, are continual bearers, but not sufficiently so to be termed perpetuals.

[IT is not unfrequent for Strawberries to produce a second crop. Some of the New Jersey fruit growers make these after growths pay handsomely. But this is caused by external causes. Just as if we strip off the leaves and flower buds of a Horse Chestnut in spring, it will make a new growth and flower in the fall. So a week of dry weather, succeeded by a wet one, will often make the Strawberry bloom, as well as other causes. To make a really perpetual Strawberry, we have to make what is now accidental become constitutional. You are going in the right track in sowing seed of these accidentals.—ED.]

TRENCHING.

BY H.

THE *Monthly* has become one of the things we could not do without—very useful and satisfactory. But I must say the trenching business is not left in a happy condition. My experience does not agree with the correspondent that the editor, in a measure, yielded to; and some have since trenched for Grapes, leaving the surface soil on top, which I think is not proper. The whole subject needs review. And consider what kind of soil is to be acted upon. Some subsoils are poisonous, while others are congenial, to vegetation.

[THE above is from a highly intelligent correspondent. We have only to repeat that, as a rule, our experience is against bringing the subsoil to the surface in the valuable operation of trenching, and we think this would prove the general view of most practical men. We have seen, in many instances, vegetable gardens rendered useless for three or four years after the operation, and until the surface soil had become thoroughly imbued with the fertilizing gases from the atmosphere and other ameliorating sources. The feeding roots are near the surface, and there the good soil should be. The subsoil should be made loose, and be fully disintegrated, and made so as to perpetuate those advantages. But is it necessary to sacrifice the advantages of a good surface soil to obtain this? In worn-out surface soil the case is different. Nevertheless, our columns are open to those who differ from us.—ED.]

FULLER'S BUDDING-KNIFE.

BY A. S. FULLER, BROOKLYN, N. Y.

IMPROVED Budding-knives seem to have taken hold of our readers' attention as a thing which must be brought about. Mr. Fuller recently called attention to the subject at a recent meeting of the New York Farmers' Club, and we have since received the following from that gentleman himself:

I SEND you a number of *Life Illustrated*, which contains a cut of the improved knife, and a report of what I said about it at the Club. We use the Barlow

handle, as it is small and suitable to the purpose, and certainly very cheap—only nine cents at retail. Any other would answer the same purpose if small enough, and of a shape suitable to the hand while budding. I will endeavor to get a blade put into one of these handles and forward it to you this week.

A. S. FULLER.

IT will be seen that the improvement consists in making the back portion of the point of the budding-knife of the same thickness and texture of the ivory blade usually fixed in the end of the handle, and by which that is dispensed with, and the continual reversion of the knife and consequent loss of time rendered unnecessary.

Domestic Intelligence.

THE CIDER AND THE BENONI APPLES.—Nicholas Longworth set out last spring 1,000 Smith's Cider Apples—the Benoni—some of our cultivators are seriously thinking of planting it out by the thousand, for the purpose of raising Benonis to be picked and sent to the northern cities in baskets the same as peaches. It is a very handsome and excellent apple, and the *trees* are good bearers and come *early* into bearing. They are upright growers, with compact heads, and they might be placed in an orchard as near as twenty feet apart, or at the rate of one hundred trees to the acre, while many kinds will admit of only forty to the acre.—*North Western Farmer.*

TO MAKE RED CURRANT JELLY.—Put your currants in a jar in the oven, and let them remain till the juice is all out of them. To a pint of syrup add a pint of white sugar, pounded, and made quite hot. Before the sugar is added boil the syrup very slowly for two minutes; then add the sugar and boil it ten minutes.

PREMIUM FOR TIMBER TREES.—Such has become the scarcity of timber in Massachusetts, that the Society of that State for the Promotion of Agriculture have offered $1000 for the best plantation of trees, of any kind, commonly used for and adapted to ship-building, grown from seed planted for the purpose, or otherwise, on not less than five acres of land; one white oak, at least, to be planted to every twenty square yards. Notice in writing must be given to the Secretary of the Society on or before January 1st, 1860, of the intention to compete for the premium, stating where the land is situated, the nature of the soil, and what has been done in relation to the plantation up to the time of giving notice. The premium will be awarded in 1870, in case the success of any competitor has been such as (in the opinion of the trustees, or of those appointed by them to adjudge the same) to give a reasonable probability that the plantation will produce eventually a fair supply of ship timber in proportion to the number of acres planted. The Society claims some further right to designate what trees may be cut and what shall be reserved for the leading objects of the plantation.

PEARS AT CINCINNATI.—Mr. R. Buchanan, the well-known cultivator at Cincinnati, gives some excellent remarks on his experience with pears at Cincinnati in the *Ohio Valley Farmer*, from which we extract:

"Twelve to sixteen years ago I planted eighty standard trees, comprising sixty-seven varieties.—Dwarfs were then but little known in the West. The trees were planted twenty feet apart, on the highest and dryest part of my orchard, and in sod, to avoid the disease called 'fire-blight;' as too rich a soil and high cultivation is said to expose the trees to that malady.

"I have, within the past few years, been covering with grafts of the better kinds those trees that bore inferior fruit; thus reducing the varieties from sixty-seven to thirty-one. It is better to cultivate twenty five to thirty choice kinds, than a greater variety, and of these at least one-fourth should be Bartletts, the most reliable pear we have.

"Among the first to yield fruit are the Bartlett, Summer Doyenne, Louise Bonne de Jersey, Dearborn's Seedling, Madeleine and Belle Lucrative; and the last, Urbaniste, Vicar of Winkfield, and Dix; medium, White Doyenne, Napoleon, Bloodgood, Seckel, Julienne, Washington, &c.

"Within the past eight years I have been experimenting with Dwarf Pears, and have been so much pleased with them as to increase the number from a dozen, at first, to two hundred, planting a few every year. Of these I have about sixty varieties. Some of my dwarf trees, planted six years ago, are now twelve feet high.

"Last year the average price was $4 per bushel, and some of my trees produced from five to six bushels each. With me, thus far, the Pear has been as reliable as the Apple, and last year more so.

"The only cultivation I give to pear trees planted in sod, is to scatter a little manure around the roots every third year, early in winter, and turn it under with the spade in spring, sometimes adding wood or coal ashes and pulverized charcoal.

"I can recommend the following list from my own knowledge, as best suited to this vicinity, both for dwarfs and standards. Other varieties are, no doubt, good; but these are the best that I have tested:

Madeleine,	*Louise Bonne de Jersey,*
Dearborn's Seedling,	Golden Beurre of Bilboa,
Summer Doyenne,	*Urbaniste,*
Bloodgood,	Beurre Deil,
Julienne,	St. Ghislain,
Oswego Buerre,	Tyson,
Belle Lucrative,	*Napoleon,*
Bartlett,	Heathcott,
Seckel,	Andrews,
White Doyenne,	*Steven's Genesee,*
Flemish Beauty,	Rostiezer,
Onondaga,	Glout Morceau,
Dix, (on the pear stock,)	*Vicar of Winkfield,*
Jaminette,	*Lawrence,*
	Buerre D'Aremberg.

Were I confined to half the number, I should prefer those in *italics.*

"The celebrated *Duchesse D' Angouleme* is not to be relied on in this climate, though some seasons it does well."

RIVERS' MODE OF KEEPING APPLES.—In a letter to the Secretary of the British Pomological Society, Mr. Rivers writes:

"March 3rd, 1859.

"DEAR SIR,—I forgot to add to my notes on Apples sent, that they have been kept in a very old, dry, arched cellar, under my packing-shed, the average winter temperature of which is about 50°. Air is constantly admitted at one end, through a wire grating, and flows gently through by the crevices in a very old, ill-fitting door at the end opposite to the wire grating. I daresay you observed the remarkably fresh state of the apples. I have kept Hawthornden apples quite sound till May, in this cellar. The fruit is gathered, and, without any preparation, placed in small wooden compartments, in double and single layers, and never touched till wanted.

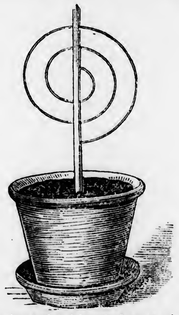
"The pears were kept in a greenhouse (with Camellias) in new flower-pots, covered with pieces of slate. I am, dear sir, yours truly, THOS. RIVERS."

The pears were firm, handsome, and well colored, but generally unripe.

Foreign Intelligence.

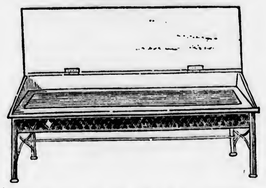
FLOWER TRELLIS.

A VERY pretty foreign way of training a creeping plant for a window is by means of an upright flower-



stick, with a wire twisted in circles, as given in our diagram. These form very ornamental shades for windows, and are quite inexpensive.—*Englishwoman's Domestic Magazine.*

GARDEN SEAT.



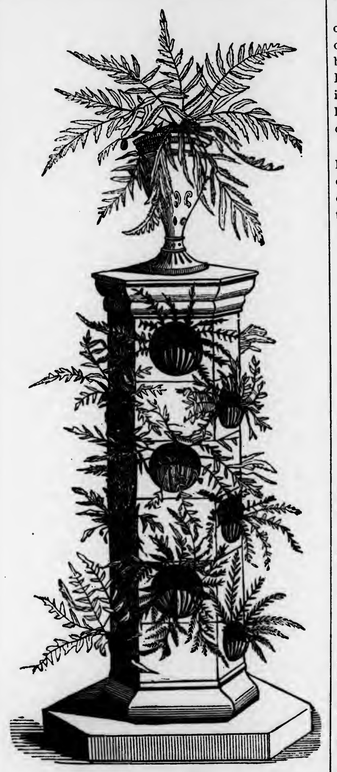
M. BARBEAU, of the Quai de la Megisseric, Paris, has invented this new form of garden seat, which admits of being effectively covered in bad weather. It has some resemblance to a long, low writing-desk closed; the lid or cover opening upwards, and forming a back. By this contrivance, the seat may always be kept perfectly dry, even in winter.—*Cottage Gardener.*

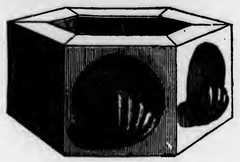
FERN PILLARS.

WE find in the London *Cottage Gardener* the following pretty idea, from the pen and pencil of our friend Mr. Tyerman, whose contributions have also on past occasions enriched our own pages.

Hollow trunks of trees may be used in the same way, and very pretty parlor ornaments be obtained by their use.

"I am very desirous of calling your attention to a Fern-brick, the invention of Dr. Watson, a medical gentleman of this city. I have inclosed a few pencil sketches, showing the adaptability of them to variou purposes of ornamental Fern-growing. The origina





intention of the inventor was to form a temporary wall or pier with square bricks, so that they might be taken out and replaced at pleasure; but I consider their greatest merit is to adapt them for ornamental conservatory or greenhouse decoration. A few explanations will give you my meaning.

"A square brick, nine inches by four inches and a half, having its centre scooped out, a scollop-shell pattern is moddled to fit the lower part of the hollow. This forms the front, and has a very ornamental appearance. They can be built one over the other for a pier or a wall at pleasure. A hole in the bottom of the hollow cavity is made, sloping to the back of the brick, for drainage.

"The invention appears to me to possess the most merit when constructed into pillars of any convenient height, and cemented together or not at pleasure. The hollow space in the centre (as shown in the accompanying sketch) could be filled with damp moss, hay, &c.; the vase on the top containing water, which could be contrived so as to slowly percolate by adjusting a cork to the hole in the bottom; and the water, supplying the roots of the Ferns by passing into the centre of the pillar, would always maintain a regular and an abundant moisture, so as to insure a healthy growth in the driest atmosphere.

"I consider it a matter of small importance which of the Ferns are planted north or south in the sides of the pillar; certainly the most fragile fronds would be benefited with all possible shade. The chief point I consider is to arrange them so that the erect-growing ones occupy the part of the pillar beneath the level of the eye; and the drooping ones on a level, or above the level of the eye.

"In the subjoined list I have marked those for the lower half with E, the upper half with D, and named only those that are cheap, readily obtained, and easy of cultivation. Those marked F are fragile in texture, and would be benefited by a little shade.

"E. Polypodium pectinatum.
D. " vulgare, *var.* Cambricum.
E. Goniophlebium loriceum.
E. Phlebodium aureum.
E. Phymotodes longipes.
D. Niphobolus lingua.
E. Campyloneurum ensifolium.
E. Drynaria diversifolia.
E. Struthiopteris Germanica.
D. Phegopteris calcarea and vulgaris.
D. " dryopteris.
F.D. Mynopteris lanagera and myriophylla.
D. Cryptogramma crispa.
D. Platyloma Brownii, falcata, and rotundifolia.
D. Adiantum pedatum, affine, and formosum.
F.D. " hispidulum and Ethiopicum.
F.D. " cuneatum, assimile, and Capillis Veneris.
E. Pteris longifolia, umbrosa, and semipinnata.
D.E. " tremula.
E. Litobrochia vespertilionis.
E.D. Blechnum occidentale and gracile.
D. Doodia aspera and caudata.
D. Woodwardia radicans.
D. Asplenium lucidum and marinum.
F.D. " trichomanes, fontanum, & flaccidum.
E D. " bulbiferum, polyodon, and adiantum nigrum.
F.D. " filix-fœmina, *vars.* crispum and multifidum.
F.D.E. Ceterach officinarum.
E. Onoclea sensibilis.
E.D. Cyrtomium falcatum.
E. Nephrodium Hookerii and molle.
F.D. Cystopteris bulbifera and fragilis.
E. Lastræa podophylla montana.
E. " filix-mas, *vars.* cristata and pumila.
E. " marginalis and Goldiana.
E. Polystichum pungens and Capense.
D. Davallia bullata and Canariensis.
E. Cyathea dealbata.
"The above are all adapted to greenhouse culture."

A CORRESPONDENT of the English *Cottage Gardener* (which paper copied the article and cut of the Bouquet-holder made of China cups in our paper,) says: "The Bouquet-holder described at page 290 of the *Cottage Gardener*, would be improved if, instead of 'placing under the bottom of each cup a circular piece of wood to separate them,' the interstices were filled up with wet sand, serving the better purpose of raising the cups, and of steadying them, as well as supporting the flowers. A nest of flat-bottomed gallipots, diminishing in size upwards, will do."

RETURN OF AN ENGLISH PLANT COLLECTOR.—We announce with pleasure the return of our esteemed friend Mr. Milne after an absence of eight years on a botanical mission, during which period he has explored nearly the whole of the South Sea Islands, including the Society, Feejee, Navigators', New Hebrides, Sandwich, and many other islands and groups, besides a considerable portion of Australia and New Guinea. In one of the islands, we believe in the New Hebrides, whose inhabitants are very ferocious and addicted to cannibalism, he nearly lost his life through the jealousy and murderous disposition of the people, who viewed his object—collecting plants—in any thing but a favorable light Mr. Milne brings home a number of fine plants aud specimens, seeds, etc., most exquisite Hypnums, and other mosses. After a short stay in England, onr enterprising friend will proceed to South Africa on another expedition for collecting plants in that imperfectly explored district.—*Floricultural Cabinet.*

NEW HORTICULTURAL GARDEN.—The Horticultural Society of London, which was supposed to be all but defunct, has surprised the world by a vigorous rattling of its dry bones. It now proposes to establish a grand Horticultural Garden at Kensington, London, which it designs to make something of another Sydenham Crystal Palace affair.

Horticultural Societies.

KENTUCKY HORTICULTURAL SOCIETY

EIGHTEENTH EXHIBITION.

This was held on the 1st of September, and we have been favored with an Official Report. It appears to have been one of the most successful ever held, and we congratulate the Society on the career of usefulness so evidently before them.

List of Awards.

CLASS A.—FRUITS IN SEASON.

APPLES.

Best 25 varieties of Apples, 3 entries, Lawrence Young, Jefferson co., Ky., premium.
Best 12 varieties, 3 entries, C. A. Page, Jefferson co., premium.
Best 8 varieties, 3 entries, Carey, Peter & Carey, Jefferson co., premium.
Best single variety, 7 entries, James Stivers, Jefferson co., premium.

PEARS.

Best 12 varieties of Pears, 2 entries, Lawrence Young, premium.
Best 6 varieties, 2 entries, Hobbs, Walker & Co., Jefferson co., premium.
Best single variety, 6 entries, Lawrence Young, premium.

PEACHES.

Best 12 varieties, 2 entries, Lawrence Young, premium.
" plate of white-fleshed Clings, 5 entries, H. S. Duncan, Jefferson co., premium.
" plate of yellow-fleshed Clings, 2 entries, L. Young, premium.
" plate of white-fleshed Freestones, 3 entries, H. S. Duncan, premium.
" plate of yellow-fleshed Freestones, 5 entries, H. S. Duncan, premium.

QUINCES.

Best dozen, 3 entries, Colby Shrader, Jefferson co., premium.

GRAPES.

Best Native Grapes, 3 varieties or more, 6 entries, Ormsby Hite, premium.
" Foreign or Greenhouse, 3 varieties or more, 1 entry, W. Heaver, Cincinnati, premium.
" plate or basket of Catawba, 6 entries, A. Pennington, Jefferson co., premium.
" plate or basket of Isabella, 2 entries, Carey, Peter & Carey, premium.
" Grapes, Native and Foreign, W. Heaver, Cincinnati, premium.

MELONS.

Best Watermelon, 4 entries, C. K. Redman, Clark co., Ia., premium.
" Nutmeg Melon, 2 entries, Ormsby Hite, premium.
Finest display of fruits in season, Apples, Peaches, Pears, Plums, and Grapes, 1 entry, L. Young, premium.

CLASS B.—VEGETABLES.

POTATOES.

Best half bushel sweet red, 3 entries, J. L. Kalfus, Jefferson co., premium.
" half bushel yellow sweet, 1 entry, Woerner & Brown, premium.
" half bushel Yams, 1 entry, Godfrey Stilz, Jefferson co., premium.
" 6 heads of Cabbage, 1 entry, J. O. Ross, premium.
" peck of Tomatoes, 1 entry, J. O. Ross, premium.
" dozen roots Salsify, 3 entries, Woerner & Brown, premium.
" dozen Parsnips, 3 entries, J. O. Ross, premium.
" dozen Carrots, 2 entries, Woerner & Brown, premium.
" dozen Beets, 2 entries, J. L. Kalfus, premium.
" Pumpkin, 1 entry, O. Hite, premium.
" peck Onions, 3 entries, H. S. Duncan, premium.
Largest general display of Vegetables, containing the best specimens, 1 entry, J. O. Ross, premium.

CLASS C.—FLOWERS.

Best 20 Roses in pots, 2 entries, E. Wilson, Jefferson co., premium.
" 12 Roses in pots, 2 entries, W. Heaver, Cincinnati, premium.
" 24 named varieties of Dahlias, 2 entries, E. Wilson, premium.
" 12 named varieties of Dahlias, 3 entries, W. Heaver, premium.
" display of bedding-out plants in variety, 3 entries, Moore & Serb, premium.
Best Ornamental Flower Stand, 4 entries, Mrs. J. O. Ross, premium
" Floral Design, 3 entries, Henry Nantz, premium.
" Table Bouquet, 5 entries, Henry Nantz, premium.
" Hand Bouquet, 7 entries, Henry Nantz, premium.
" collection of Cut Flowers, 1 entry, W. Heaver, Cincinnati, premium.
" general display of all kinds of Flowering Plants, in tubs, pots, etc., 4 entries, premium divided between Wm. Galetly, gardener, John P. Morton, and F. Moret & Bro. Premium, $30.
" dozen Greenhouse Plants, 3 entries, Elwanger & Fox, premium.

HONORABLE MENTION

Is made by the Judges on Fruits, of very superior Grapes entered for exhibition only, by Dr. Clute, H. S. Duncan, J. Sackstedor, (bunches of Ohio or Cigar-box Grape of almost fabulous size,) and Anton Kehlert. Also, of Burgundy, Cigar-box, and White Sweetwaters, contributed by a gentleman whose name became displaced. Like mention was also made of a very fine sample of Yellow Egg Plums, shown by Mr. George Herr.

LAWRENCE YOUNG, President. W. D. GALLAGHER, Sec'y.

In reference to this Exhibition the *Louisville Journal* says:

"The peach crop has for some years been so uncertain in this part of the Ohio Valley, and the fruit of this kind upon the tables of the Society at the present Exhibition is so really superb, that it becomes a matter of no little public interest to know what varieties those are that have set all tongues in motion and kept all mouths watering for the last forty-eight hours. We have, therefore, been to the trouble of procuring the names of some of the more prominent lots that were honored with premiums.

Best 12 varieties of Peaches—Lawrence Young, premium—consisted of Grand Admirable, Yellow Grand Admirable, Robinson Crusoe, Tippecanoe, Stump the World, Crawford's Late, Leopold, Pavie Pomponne, Lemon Cling, Red-cheek Melacoton, Red Pine Apple, and Columbia.

"H. S. Duncan took the premium on the best plate of white-fleshed clings, with the Grand Admirable. Lawrence Young on best plate of yellow-fleshed clings with the Leopold. H. S. Duncan on the best plate of white-fleshed freestones, with the Red-cheek Melacoton. H. S. Duncan on the best plate of yellow-fleshed freestones, with the Columbia.

"A list of the Pears that took premiums will also be interesting to many of our readers. For the best 12 varieties, Mr. Young took the premium with the Bartlett, Flemish Beauty, Seckel, Buffum, Louise Bonne de Jersey, White Doyenne, Eastern Beurre, Lawrence, Columbia, Glout Morceau, Vicar of Winkfield, and Beurre d'Aremberg.

"Hobbs, Walker & Co. took the premium on best six varieties, with the Seckel, Bartlett, Belle Lucrative, Duchesse d'Angouleme, Swan's Orange, and Glout Morceau.

"Mr. Young took the premium for the best plate of Pears, with the Bartlett.

"This morning the doors of the Exhibition Room will be thrown open to the public at half-past 9 o'clock, and the sale commence at 10 o'clock, precisely."

CINCINNATI HORTICULTURAL SOCIETY.

JUNE 18th.

Mr, Ernst warned cultivators against the injury of too severe pruning of large limbs.

Dr. Warder remarked that it took several years to develop fully the peculiarities of a Seedling Grape.

FRUIT COMMITTEE'S REPORT.

Raspberries from Judge Markland—Allen—Fine specimens of Catawissa; good.

Wm. Heaver—Brinckle's Orange, very fine, pre-eminent in favor.

Col. Wilder—Kirtland—soft and tender. Common Red Antwerp, named Ontario. Yellow Antwerp, tender. Large Fruited Monthly. One other variety (procured for true Red Antwerp,) resembles the Kirtland.

Wm. Addis—Raspberries—Allen, very large, bright and fine; promises to be valuable for market.

A. H. Ernst—Raspberries—Knevett's Giant, very large, handsome, very fine flavor; one of the hardiest of the tender varieties. Franconia, fine, bright red, large and handsome. Fastolf, large, handsome, rich flavor. True Red Antwerp, (Queens,) with its peculiar rich Raspberry flavor; fine specimen.

E. J. Hooper—Yellow Antwerp, Catawisa, Ontario, Ohio Ever Bearing, Black Cap, Allen, Native Yellow, Kirtland, Red Cane, American Red, synonymous with Dr. Warder's Purple Cane.

By John A. Warder—twelve varieties—Brinckle's Orange, very delicate flavor, salmon color, fine for preserving, beautiful; Native Yellow, like the Black Cap; Catawissa, ever bearing, firm enough for market, very prolific; Yellow Antwerp, very delicate, finely flavored; Large Fruited Monthly, (Rivers',) fine flavor, ever bearing; Belle de Fontenay, monthly, delicate flavor, quality questionable; Kirtland—this firm, prolific, good, conical, promises, to be a fine market variety; Fastolf, very delicate, highly flavored, fruit soft; Cincinnati Red Antwerp, or American Red—suggested that this be called the Ontario; Purple Cane, or "English," very early, very prolific, very rich, and altogether a valuable and satisfactory variety; Seedling Black Cap, very prolific, very large, and less seedy than the common Black Wilding; Black Cap; Allen, very fine flavor, very handsome, bright red, hardy, bears carriage; Double Flowering, sprout from Yellow Antwerp.

Premium for best plate of raspberries awarded to Wm. Addis for fine plate of Allen.

Second premium was awarded to William Heaver for Brinckle's Orange.

For best display, to E. J. Hooper; eight varieties in competition.

For second best display, to Dr. Warder; twelve varieties.

First premium for best seedling, to Dr. J. A. Warder; for an improved variety of Black Cap, named the North Bend.

E. J. Hooper—Cherries—Late Duke, fair, handsome specimens. Currants—Red Dutch, fine, handsome samples; White Dutch, (?) English Black.

F. G. Cary—Currants—Red Dutch, very fine. White Grape—very handsome. Cherries—handsome bunches, showing evidence of fine cultivation; Black Naples—quite superior to the Black English Victoria.

The committee recommend that the premium for Currants be awarded next Saturday, and members are requested to be present for competition.

Moved by Mr. F. G. Cary, and resolved, that that portion of the above report on fruit relating to the "Cincinnati Red Antwerp," or "American Red," be laid over until next Saturday's meeting, and that it is made the order of the day for discussion.

REPORT OF FLOWER COMMITTEE.

Exhibited by Sayers & Hutchinson—New Verbenas; Buist Crimson Perfection; decidedly the best crimson now in cultivation. Also, Evening Star, Monarch Celestial, Giant Battales, Mrs. Beecher Stowe, Rose, Lord Raylaud, New Hybrid Perpetual; one of the finest Roses known to us; color more brilliant than Giant Battales.

By Mr. Mullett—seven new seed Picotees, several of them very fine, worth perpetuating; Larkspur, new.

By William Heaver—Delphinum Hendersonii, Delphinum formosum, Delphinum sinensis, seedling, two varieties.

WILLIAM SANDERS.
THOMAS KNOTT.

JUNE 25th.

Dr. Warder remarked that the Ontario Raspberry was a native and not Red Antwerp, but the same as the American Red of Downing.

A letter from Mr. Ernst explained that the five raspberries exhibited by him at the last meeting, had no premium, because they were not in the quantity required for competition.

Dr. Warder regarded the Allen and Kirtland of the red varieties as likely to become pre-eminent as market fruit, and all the very fine and also large kinds, exhibited by Mr. Ernst, for instance, last Saturday, for amateur use. He was informed that Mr. Slack, in Kentucky, has the true Hudson River Antwerp, for which he obtains $4.50 per drawer for all he has to dispose of.

Mr. Slack stated that the Hudson River Antwerp was known to him where he was born. It was very fine when under high cultivation. It required most a heavy, rather wet soil. His neighbors' berries were rather mixed up. He thought none could compare with his, which he called and considered the Hudson River Antwerp.

Mr. Sayers doubted Mr. Slack's having the true Hudson River Antwerp.

The Committee on the habits of fruits reported:

Class First—Of an Upright, Conical Growth.—Benoni, Early Strawberry, Golden Russet, Early Sweet Bough, Lady Apple, Pryor's Red, Northern Spy, Talman's Sweeting.

Of an Upright Growth, but with a Round Head.—Red Astrachan, White Pippin, Alexander, Kaighn's Spitzenberg, Michael Henry Pippin, Drap d'Or, Bohannan, Belmont, Rawle's Jannette, Fall Wine, Rambo, Rome Beauty, Summer Rose, High-top Sweet, Myers' Nonpareil, Fall Pippin, and Porter.

With Spreading Limbs and Round Head.—Smith's Cider, Maiden Blush, Baldwin, Roxbury Russet, Newton Pippin, Tulpehocken, Winesap, Broadwell's Sweet, Prince's Early Harvest, Cooper, Early Joe, Wine Apple, Golden Sweet, Gravenstein, Jersey Sweeting, Hubbardston Nonsuch, Belmont, Vandervere.

Of a Drooping, Pendant Form—Head Symmetrical.—Yellow Bellefleur, Pinnock, Rhode Island Greening, Newark Pippin, and Fall Pippin.

Of a Pendant, Drooping Form—Head Loose, or Straggling and Open.—Ortley, White Winter, Pearmain, and Newton Spitzenburg.

Mr. Nyce then proceeded to give a plan, on the blackboard, of his house for preserving fruits, etc., with some very clever and interesting explanations of his process, with the following principles, viz:

1. Coldness, as cold as possible, so as not to freeze.
2. Exclusion of light.
3. Dryness—different degrees for different things—so dry that moisture should not enter, and yet not too dry.
4. Purity, or freedom from noxious gases.
5. Equality, not warm at one time and cold at another—equal in all parts of the room.
6. Economy in regard to ice, and durability of cold and of the ice.

Room may be any size—the larger the better; thermometer 32 deg. or 33 deg.; walls three feet thick—non-conducting of heat materials between walls, as charcoal, wheat chaff, etc.; ceiling iron or zinc, on which, in upper room, is laid the ice to keep the iron, etc., as cold as ice. A room twenty feet in the clear would contain five hundred and fifty bushels of fruit, etc. Building above ground. Expense about $600. This plan is patented.

A vote of thanks was passed to Mr. Nyce for his lecture on the subject of Long Preservation of Fruits, etc.

Mr. William Addis exhibited two splendid and very firm heads of Ox-Heart Cabbage, measuring twenty-five inches in circumference.

AUGUST 20th.

From J. T. Warder, Springfield, Ohio, Stewart's Nonpareil, supposed to be a seedling in that locality; but we have the same variety from Mr. B. Stanford, fruit dealer, grown in the neighborhood of Vanceburg, Ky.

Exhibited by William Orange, Esq., from J. B. Orange, nurseryman, Edward county, Illinois—No. 1 Seedling, somewhat resembling the Summer Queen—about equal to that variety in quality; but the specimen was past its prime. No. 2, a large, yellow fruit, flattened at the base, tapering to at the calyx; flesh white, tender and good flavor, resembling the Early Pennock. No. 3, Summer Pearmain, very fair and handsome, possessing the fine quality of that esteemed variety.

From T. V. Petticolas, Porter, fair and handsome; Lowell, delicate and fine, superior to preceding; Maiden's Blush, handsome as usual.

Grapes.—Mr. Buchanan presented a number of samples, showing the result of different modes of summer pruning in its effects on the fruit, proving that when the grape is well shaded from the sun by ample foliage, that the fruit is both larger, sounder and better color than when exposed directly to the sun, as was frequently the case under the European system of pruning.

Grapes.—By Anthony Pfeiffer, some few bunches of the Zinfindal, grown in the open air; large, handsome specimens, nearly ripe. This is grown as a house variety by most cultivators. The present success, perhaps, only proves the mildness of the past winter.

On motion of Mr. Stoms, John H. Gerard was requested to read Paper of Statistics about Strawberries, etc., which he accordingly did, as follows:

Statement showing the amount of Raspberries and Strawberries grown in the southern precinct of Anderson township, and sold in the Cincinnati market during season of 1859, to wit: 7,985 bushels of Raspberries; 2,128 do; Strawberries, 10,113 do., at $3.40 per do., amounts to $34,384.20.

Deduct $1 per bushel for picking, marketing and selling, and leaves balance of $24,271.20. Now add the amount sent from Kentucky, Indiana, etc., including Blackberries, and it will be a safe estimate to say that double the amount raised in the southern precinct of Anderson is sold in the markets of this city. Amount sold from southern precinct of Anderson, 10,113 bushels; amount from Indiana, Kentucky, etc., 20,226 bushels; amount of all kinds of berries sold in market, etc., and brought to this market, 30,339 bushels, which, at $3.40 per bushel, will amount to $103,788.

This, to many, may look like a large sum to be realized from the sale of small fruits. Many persons cultivate from two to ten acres of this fruit, and the past has been a paying season to those engaged in the business. Can any portion of this vast republic equal the southern precinct of Anderson in the berry line? Imagine the vast amount of labor it must take to gather these small fruits. Each berry is picked and handled separately by persons having small baskets girt around their waists, so that both hands may be used in picking. An expert hand will pick from one to two bushels per day. It requires time, patience and perseverance to accomplish the end.

Mr. Stoms remarked that he had no doubt Kentucky contributed 20,000 bushels.

Mr. Horner remarked that Campbell county sent 8,000 bushels.

On motion of Mr. Sanford, it was ordered that competition at the Annual Meeting should be open to all the world.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. NOVEMBER 1, 1859. VOL. I.---NO. 11.

CALENDAR.

11th Month, November, 1859, 30 Days.

Moon's Phases		Boston.		Philad'a.		Baltimore		Charl'ton	
	d	h m		h m		h m		h m	
First Quarter.	2	11.35 mo		11.18 mor		11.12 mor		11.00 mo.	
Full.	10	9.21 mo		9.04 mor		8.58 mor		8.46 mo.	
Last Quarter.	17	8.22 mo		8.05 mor		7.59 mor		7.47 mo.	
New.	24	8.59 mo		8.42 mor		8.36 mor		8.24 mo.	
Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	2	6.31	4.54	6.30	4.58	6.28	5.00	6.17	5.10
	10	6.44	4.45	6.39	4.49	6.37	4.52	6.25	5.03
	17	6.53	4.38	6.47	4.43	6.45	4.46	6.32	4.59
	24	7.01	4.33	6.55	4.38	6.52	4.41	6.39	4.56

This Calendar will answer for the sun at any place in the same latitude.

Hints for November.

In our Specimen Number, issued last season at this time, the following hints appeared. We have promised to reprint in our present form, as occasion offers the principal matter that appeared in it, and these hints are just now applicable.

FRUIT GARDEN.

Preparing, planting, protecting, pruning; who would think so much could be found to employ us in November? Either for pleasure or profit, nothing is more interesting than fruit growing; and if what is worth doing at all is worth doing well, it is more particularly so at the hands of the orchardist. As to whether fruit growing will "pay?" that question is very easy of solution. Anything will pay for which there is a demand, and which none of our neighbors can raise cheaper than ourselves. When fruit growing once becomes a regular business, prices will rise and fall with the abundance and scarcity of the crop, —and except in cases of total unproductiveness, it will be the consumer instead of the producer who pays the difference. Will Pear growing pay? is like asking, will the Ice crop pay? More danger I judge should be apprehended from its superabundance than its scarcity. Still, we would all rather split on the rock of superabundance, and, with this view, now is the time to prepare for next Spring's operations.

First and foremost, an orchard should be thoroughly underdrained, in order to obtain a moist subsoil—should your trees escape a late frost in a bad season like the last—if the subsoil is dry, the fruit will fall in a drought, or if the fruit does not fall, the leaves will, when the fruit may as well—for as soon as the leaves fall, or in any way become extensively injured, the fruit will be worthless, if it even seems to ripen. Whatever is added to the soil in the shape of manure, should be done as much with the view of affording a moisture-retaining property to it, as of supplying any mineral or gaseous element; heating or excessively stimulating manures are very injurious, especially to the pear, and many failures in its management have originated entirely in this mistake. All fruit trees require a soil which is deep and dry in winter, but cool and retentive of moisture in summer,—and if not so naturally, must be made so, before much success can be hoped for. It "pays" better to have but half an orchard thus well done, than a whole one as we usually see it. Agriculturists now lay down the rule, that "there are few soils not improved by under-draining," to which I will add, "especially for fruit orchards."

When drained, subsoiled, and moderately manured, the ground may be left rough all winter, when it will be lighter in the spring than if smoothed off at once. For an orchard of Pears, Plums, Cherries or Apples, twenty feet apart is a good distance to set the trees, which should be in straight lines. Peaches or Apricots may be planted between these if on a south or warm aspect, as they are there short lived, and will be about done when the others come into bearing; on a north or northwestern aspect, however, especially if the trees are clothed with branches to the ground, they will often live to a great age, but they may be cut away when the others grow. Dwarf Pears are sometimes planted between standards; but these require rather higher culture than orchard trees, and are best grown by themselves. The ground for an orchard, if prepared as above advised, may be sown down after planting next spring with orchard grass. Immediately about the trunk of the trees, the grass should be kept away, the better to guard against harboring the larvæ of borers. Every second year, the orchard under the trees should have a good top dressing of guano or very well rotted manure. I mention this here because it is so often recommended to keep an orchard under culture in order to supply manure to the trees. The system I recommended is better.

Established orchards, on thin or impoverished soil may be renovated in the following manner:—If a tree has been planted say fifteen years, and attained the size we might expect in that time,—get, say ten feet from the trunk, and dig a circle two feet deep all around it, and fill in with a good compost, the effect the next season will be quite marked. If the tree is older or younger, the distance to start with the circle from the trunk will of course be proportionate. A top dressing will also be of great assistance, as well as a vigorous pruning out of all weak or stunted branches. Moss and old bark should be also scraped off, and if the trunk and main branches can be washed with a mixture of sulphur and soft soap, much advantage will follow. Old decayed bark on fruit trees is always a sign of a want of vigor. When a tree is growing thriftily it cracks this old bark so freely, as to make it easily fall off; but when the tree is weak and enfeebled, the bark often becomes indurated before it has got cracked, and in this state the tree becomes what gardeners call "hide bound," and artificial means must be afforded to aid the tree to recover. In the cherry and plum trees this is easily done, by making longitudinal incisions through the bark with a sharp knife. In the Peach and Apricot also, I have employed this process with advantage, in spite of learned theories which have attempted to show up the absurdity of the practice.

Sometimes fruit trees are unproductive from other causes than poverty of the soil, or neglect of the orchardist.—They often grow too luxuriantly to bear well. In this case root-pruning is very effectual, and is performed in a similar way to that described above by digging a circle around the tree, except that the circle is made closer to the trunk of the tree. A fifteen year old tree for instance, may be encircled at five feet from the trunk. No rule can be laid down for this. Judgment must be exercised. If cut too close, the tree may be stunted for years, and if too far, it will not be effective. The aim should be to reduce the roots about one third.

Almost all established orchards should have an annual visit from the pruner at this season. Weak growing trees or those which have over-borne, will be benefitted by a vigorous application of the pruning knife. Free growing trees on the other hand, will need only those branches taken out that are likely to cross and interfere with others.—Many recommend cutting off large branches in summer, because the wounds heal over at once; but if the wounds are painted, as they should be, no injury will accrue from that source; while the injury to the tree from the sudden loss of a large mass of foliage will not occur.

In planting fruit trees, the Pear, Apple, and Cherry, invariably do better fall-planted, than when deferred till spring, north of Philadelphia. The Peach, Plum, and Apricot, should not be planted till spring, if not done before the first of November. All fruit trees when set out should be vigorously shortened in. Trees should not be planted deep—no deeper than they grew before removal. It is better to draw a mound of soil about them for the winter, to be removed early in spring; it preserves from frost and throws off superabundant moisture. Dwarf Pears must be set below the Quince stock—and in selecting these, choose those that are budded near the ground—where a long-legged quince stock has to be buried so deep, the tree makes but a poor growth for some seasons afterwards, and is in other respects injured. In severe climates, Cherries of very luxuriant growth are liable to be winter-killed. To obviate this, the weaker growing kinds, as the Duke and Morello, and the Mahaleb, are used for stocks to graft them in. This checks their vigor, and renders them hardier. It however, always keeps them dwarf,—and superior sized fruit is not so probable. Where danger of winter-killing exists, these strong growing kinds should not have a highly manured soil, and where they yet grow very vigorous when young, they may be root-pruned as already described. If they can be got through the first ten years of their life, till they loose their youthful vigor, they will not suffer in severe winters afterwards.

Much attention is now given to small fruits. They who have depended the past year on their orchards, have been driven for fruit, to green Tomatoes and Elderberries, and will now plant Currants, Gooseberries, Raspberries, Strawberries, and Blackberries. These can generally be depended on—and near a large city are always a source of profit.

The three first named like a moist subsoil, and a situation not exposed to drying winds. The Strawberry and Blackberry will do in a drier soil, and warmer situation. The Blackberry has now become an important fruit, but should not be planted where its creeping roots will be an objection. There are always "odd corners" where such plants become just the required thing to fill with. The Strawberry, Blackberry, and Raspberry, should be protected in winter, north of Philadelphia,—most kinds are hardy enough to stand without this care, but it is better to employ it nevertheless. Strawberries may have leaves or straw litter thrown over them, and a little

soil, thrown over to keep the wind from blowing them away. Raspberries and Blackberries should have their last seasons bearing shoots taken out, the young canes pruned so that three or four of the strongest only are left, and then laid down and covered with soil. To do this without breaking them, dig out a spade full of earth on one side of the hill, and with the heel press the stock over. The inclination will be sufficient to prevent breakage.

Fig trees may be preserved in the same way. Sometimes they are taken entirely up, and placed in a moist cellar, secure from frost.

I cannot close this chapter without the advice to the orchardist, that when he can spare time from any other pressing occupation, his pastime should be to "hunt" insects. Not nearly as much time is spent in the pursuit as there should be. It is not worth while to stop to enquire which is the *best* mode of dealing with them. Employ all modes—every emeny killed is so much gained, and practice will soon show which is the best. Whatever borers may have been permitted to get into the trunks of peaches, plums, apples or quinces, should be at once looked after. Some use a wire, running it down the hole to the end where reposes his grubship; but my favorite plan is to follow him with a jack-knife The wounds should be afterwards painted well to keep out the wet, till the new bark grows over next year. After they are all got out and painted, oiled canvas, or leather, or brown paper, to be afterwards tarred, should be tied around the trunk, some four inches above the ground, and two or three below; gas tar is preferable. The trees will then be ready for the borer next June, who will hesitate to storm so formidable a defence.

This part of "pomology" is very important, and with each month, as the season arrives for such precautions, much valuable information will be given not generally known, whereby many orchards and trees, now utterly worthless, will be a source to their owners, both of pleasure and profit.

HOT AND GREENHOUSE.

The Greenhouse will now begin to look more natural, after having had the stock housed last month. With many plants having probably been taken up out of the open ground, many dead leaves will daily appear, requiring frequent removal, neatness is one of the chief beauties of a greenhouse. Acacias, and Australian plants generally, with hard wood and delicate roots, should be placed at the coolest end of the house, where little water will be required. These plants should not be watered often, but when they are, it should be thorough. Frequent waterings soon render the roots of these plants unhealthy, when it is very difficult to restore them to vigor. Whenever the foliage becomes of a sickly yellow hue, the best plan is to plunge the plant in a larger pot, filling the space with moss,—and when the plant requires water, give it only through the moss, unless the plant seem to become so dry as to suffer, when it should receive one thorough watering. Very little fire should be applied to a greenhouse; just sufficient to keep it at about 45 degrees. Unless very far north, but little fire heat will be required this month.

The Hot House will now be reaching its most attractive season. Begonias, Bouvardias, Justicias, Aphelandras, and so on, will now be a blaze of beauty till spring. Happy they who can afford the luxury! The temperature should be maintained at from 55° to 65° and frequent syringing be employed. Mealy bug will now begin to be troublesome, and the various remedies should be vigorously employed. It is scarcely necessary to remark, that if orchidæa are grown, those which are inclined to grow now should have the shadiest and dampest end of the house to themselves.

Windows, Cellars and Frames.—Many of my readers who have no other than the above means of preserving plants through the winter, will be glad of a few hints how to manage them.

A cellar is a very useful place to an amateur. Not only Dahlias, Tuberoses, and other summer flowering roots may be effectually preserved therein, but a great many of the evergreens and deciduous plants that thrive in the open air in summer. Roses, Pittosporums, Oranges, Oleanders, Bays, Myrtles, and others do very well. Even the Camellia and Daphne may be made to do pretty well, if a little light can be given at times. But a cellar, to be of use, must be *cool*. While no frost must, on any terms, be admitted, the thermometer should never rise above forty-five degrees. If the cellar is warmer, more light must be given. Some keep plants very well in warm cellars by having glass doors beneath the wooden ones. The latter are then only closed when necessary to keep out frost. Plants may be kept in pits or frames in the same way, a pit may be sunk six feet in the ground, and a glass frame raised over it, or even one of boards; and if the thermometer can be kept at a point ranging from thirty-five to forty-five degrees, most kind of hardy greenhouse plants can be preserved, without even the admission of light or air for two months at a time. The cellar is also a good place for preparing bulbs intended to flower through the winter. If not already potted, they should be done so as soon as possible. For Hyacinths, procure some four or five inch pots, and some rich, turfy soil, from a pasture, if it can be obtained, and plant the bulbs just under the soil, surrounding the surface of the bulb with sand. As soon as planted, plunge or bury the pots completely in sand or soil in the cellar, covering the pots about an inch. Here let them remain till the crown of the bulb appears above the soil, if the finest flowers are to be obtained; or, if it is desired rather to have them bloom early, let them remain long enough to push out a few roots before being brought into a warm room. Hyacinths are usually spoiled by forcing them before their roots are well developed. The same remarks apply to all other bulbs which are planted at this season.

Window Plants should not be kept very warm at this season. They should have all the sun and air, and as little of the artificial heat of the room as possible. These remarks apply especially to Mignionette, which is very impatient of in-door confinement. Succulents, such as cacti, are excellent window plants in this respect, as the dry air does not affect them. To keep the air about the plants moist, is one of the secrets of window culture. Some who have very fine windows well stocked with fine plants, make glazed cases with folding-doors of them, by which, when the room is highly heated and very dry, they can be enclosed in an atmosphere of their own. In such cases, ferns and mosses can be grown to perfection, and pendant plants in hanging vases, gives a Brazilian forest appearance to our happy Christmas homes.

Aquariums are now so well understood, as to be in a fair way to become essentials in the room gardening of all persons of taste. Growing plants, fishes and water reptiles are placed in the same globe or tank of water, and the gases which the fish reject are the food of the plants; while the plants, on the other hand, prepare the elements necessary for the health of the fish. By this beautiful principle of reciprocity, both plants and animals remain in perfect health, without the water scarcely ever being changed. A tank for plants and animals might form the base of a pretty parlor ornament, a central portion consisting of a case for ferns and similar plants, and a cage for birds on the top.

VEGETABLE GARDEN.

In no department of gardening is a deep and rich soil more important than in this; and at this season we could not give better advice than to lose no opportunity of improving it in this respect. Trenching may be carried on whenever the ground is not frozen over an inch in depth. I am not in favor of that species of trenching which throws the surface-soil to the bottom, and brings the subsoil to the top, in the preparation of a new garden. This should only be adopted for worn-out soils. The proper plan is to throw out the surface soil on a strip three feet wide, then breaking up the subsoil thoroughly, to the depth of one or one and a half feet. On this broken subsoil the surface-soil from the next trench is thrown, and so on until the whole be finished. The manure should be so applied, as to be worked in with the surface-soil, as the work proceeds. It is little use to attempt to grow vegetables well unless the soil is so treated. They may be and are grown on thin soils, not only at a great expense for manure, and at a great risk of dying out in a dry season, and of having the roots rotted out in a wet one. In those parts where the frost has not yet been severe enough to injure the celery crop, it may have another earthing up. Care must be exercised in the operation not to let the earth get into the hearts of the plants, or they will be liable to rot. Where the plant has evidently finished its growth for the season, measures should be taken to preserve it through the winter. For family use, it is probably as well to let it stay where it is growing, covering the soil with leaves, litter or manure, to keep out the frost, so that it can be taken up as wanted. Where large quantities are frequently required, it is better to take it up and put it in a smaller compass, still protecting it in any way that may be readily accessible. It always keeps best in the natural soil, where it is cool and moist and free from frost, and whatever mode of protection is resorted to, these facts should be kept in view. Beets, turnips, and other root-crops, will also require protection. They are best divested of their foliage and packed in layers of sand in a cool cellar. Parsnips are best left in the soil as long as possible. If any are wanted for late spring use, they may be lef tout to freeze in the soil, and will be much improved thereby. Cabbage is preserved in a variety of ways. If a few dozen only, they may be hung up by the roots in a cool cellar, or may be buried in the soil, heads downward, to keep out the rain, or laid on their sides as thickly as they can be placed, nearly covered with soil, and then completely covered with corn-stalks, litter, or any protecting material. The main object in protecting all these kinds of vegetables is to prevent their growth by keeping them as cool as possible, and to prevent shrivelling by keeping them moist. Cabbage plants, lettuce, and spinage sown last September, will require a slight protection. This is usually done by scattering straw loosely over. The intention is principally to check the frequent thawings, which draw the plants out of the ground.

In making new vegetable gardens, a south-east aspect should be chosen, as far as practicable. Earliness in the crops is a very great desideratum, and such an aspect favors this point materially. Too great a slope is objectionable, as inducing too great a run of water in heavy rains. The plots for the crops should be laid off in squares or parallelograms, for convenience in digging, and the edges of the walks set with box edging. If water can be introduced, it is a great convenience.

Sometimes Broccoli does not head before there is danger of frosts, especially if growing vigorously. If taken up with small balls of earth, and set in a damp cellar they will still perfect themselves.

Asparagus beds, after the tops have been cleared off, are better covered with litter, or stable manure. The plants shoot easier for it next season.

When the ground becomes frozen, or no other work offers, preparation can always be made for advancing prospective work when it arrives. Bean poles may be made, and if the ends are charred, and then dipped in coal tar, the commonest material will be rendered nearly equal to the best cedar.

NURSERY.

The hints given for preparing the ground well, in other departments, applies with tenfold strength to this. If a nurseryman has not capital enough to manure and trench all his ground well, he had better do only a part, even though he has to leave the balance lie waste and in weed.

Ground can be trenched by laboring men in the slack time of winter, for from forty to fifty dollars an acre,—and it is money well spent.

Almost all kinds of tree seeds may be sown now except Pines, unless there is any danger from mice or other vermin. It is on the whole, best, as soon as the seeds are to hand, to place them in boxes with more than an equal bulk of sand, and set them out to the weather to freeze. They must be sown out in the spring as early as the ground will work. Some seeds will not germinate till the second year. If they do not appear early in the season, they should be examined to see if the kernals are sound, and if so they should not be disturbed. Many seeds that usually come up the season after sowing, will not do so if the shells are allowed to dry and harden first. Cherries, Peaches, and most fruits will often lie so, and Halesias, Roses, and Thorns, occasionally stay three years. Seed beds should be selected in a deep, warm, and rich soil; and one tolerably free from the seeds of weeds—on any other it will not pay to raise seedlings. In States where the frosts are severe, seedlings of all kinds that have not attained a greater height than six inches, should be taken up, "laid in" in a sheltered place thickly, and covered with any thing that will keep frozen through the winter. If left out they are liable to be drawn out and destroyed. Young seedling stock, received from a distance should be also so treated.—In the more southern States they may be set out at once,—and as much planting as possible be accomplished that will save spring work. Many cuttings will not do well unless taken off at this season and laid in the ground under protection, like seedlings,—the Quince, Syringas or Lilacs, spirea prunifolia, and some others. In the "mild winter States," evergreen cuttings should be made now, and set out thickly in rows. The leaves need not be taken off, but short, thickset branches laid in under the soil. When rooted next fall they may be taken up and divided into separate plants. In more northern States, Evergreens may not be so struck at this season, unless protected by greenhouses and frames. Where these are at hand, evergreens may be put in, in boxes or pans all through the winter.

FORCING.

Few subjects are better worth the attention of nurserymen, market gardeners and amateurs, than this very interesting branch of gardening; but it has been strangely, and unaccountably, neglected. Whether as a source of pleasure or profit, it is an equally delightful occupation; and the considerable space we intend to occupy with the subject, will, we trust, be the means of awakening some enthusiasm in its behalf.

Potatoes, Peas, Beans, Cauliflower, Radishes, Lettuces, Tomatoes, Asparagus, Rhubarb and Parsley, are the chief vegetables usually forced; and, among fruits, the Apricot, Cherry, Fig, Grape, Nectarine, Peach, Plum and Pine.

Grapes, every one wishes to grow. For early forcing, they are the best grown in pots, that is, where fire heat is used; when a "cold grapery" is employed to produce them, they are usually grown in the open ground. This is a good season to prepare for the latter mode of culture, so as to have everything ready to plant out the vines next spring. Houses can now be constructed from one to three dollars per running foot, and capable of growing grapes to perfection, and, in many places, from fifty cents to one dollar a pound, can be very readily obtained for the fruit. The borders for the vines need not be expensive. A dry bottom is essential, which must be obtained either by draining, or, what is better, elevating the borders above the surrounding soil. A very durable and substantial border may be made by taking out the soil two and a half feet deep, and filling in with bones and broken stone, lumps of charcoal, brickbats, or any coarse material, to the depth of one foot, then filling in the remaining three inches deep with sods from an old pasture, to which, about a third of well decomposed cow or horse manure has been added. The border may extend under the vinery, and some ten or fifteen feet beyond. Pot vines are usually fruited the year following that in which they are raised. Plants struck last spring, and grown all summer, will now be ready, either to put away till wanted in spring, or started at once, where sufficient heat is at command. They should be at once pruned to the desired length, usually about six feet, the laterals taken off, the canes painted with a mixture of sulphur and soap, to destroy insects; and those not just now required, either put into a cellar or shed, secure from frost to avoid danger to the pots. Those desired to fruit early, should be at once placed in a temperature of 55 to 60 degrees, and the canes bent down to aid in causing all the buds to burst equally. This, however, depends on the condition of the cane itself. A vine with badly developed buds will not break well, no matter how well managed. The buds will only swell under the above temperature; but it is not well to start with much heat.

In a house of this character the Fig may also be started at the same time, and the Pine grow very well. The other fruits named will not do so well started with these, unless in the hands of greatly experienced gardeners, as the heat necessary to ripen the grapes so early, is too much for them. Dwarf Beans, Tomatoes and Cucumbers, would, however, do very well. These may be sown at once for this purpose. Peaches, Nectarines and Apricots, do very well planted at the back wall of vineries, and especially do they do well in tubs and pots. For the latter mode it is best to grow them one season before forcing, as better and handsomer specimens can be made from one year grafted plants. Now is the time to select those that we may desire to force the next spring. They should be lifted and potted very carefully, and afterwards placed in a cool cellar till February. Those that were potted last spring, and have a good growth, and are established sufficient to warrant an early forcing, may at once be started in a heat of from 45 to 50 degrees, and the heat increased to 55 deg. in the course of a few weeks. They should be previously cleaned, as already recommended, for grapes. Plums and Cherries do not do very well forced. The difficulty is in getting them to ripen well. I have usually had the best success when started with peaches at this time. Strawberries force easier than any fruit, and in my opinion, when gone into properly, will pay even better than grapes. They may be had all the year round when a heat of 60 deg. can be maintained, simply by bringing forward a few every two weeks. The pots of plants should be prepared in September, six inch sizes being employed. They should be started in a heat of 50 deg., till the flowers are set, and ripened in one of 60 degrees. They must be kept near the glass, and the Red Spider carefully watched. Those who have not command of heat, may have them very early by potting good plants, keeping them in a moderately dry place till February, and then setting them in frames. A house fitted up for strawberry forcing, is just the place to force Asparagus, Rhubarb, Radishes, Peas and Potatoes, which do not do well with much heat. Any of these may be started now either in pits or boxes. Peas are scarcely worth forcing, except as a luxury. They will not bear freely unless very near the light.

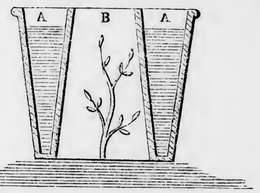
A Cauliflower pit should be in every garden, where leaves or manure can be had. Radishes and Lettuce can be forced at the same time, and will be in use before the Cauliflower grows in their way. Pits of stone or brick, about six feet under, and one or two above the ground are usually employed, with glass sashes over. The leaves should be filled in as early as possible, so as to get their most violent heating over, before the plants are set out. A watering as they are filled in assists this, which may be known to be effected by the sinking it exhibits. It is important to have the plants set as near the glass as possible, a few more leaves should therefore be added before the six inches of soil required is placed on. The plants, sown in September, should be planted fifteen inches apart, and Lettuce and Radishes may be sown broad-cast between. Asparagus, Rhubarb, and Parsley, are prepared by taking up the old roots at this season.

Communications.

NEW PLANT PROTECTORS.

BY C. G. PAGE, WASHINGTON, D. C.

These consist of a double earthenware pot, open in the centre, and clearly shown in the figure annexed, by a vertical middle section through the pot.



The annular space A is to hold water, and the central opening B to admit the plant. The gradual percolation of water through the porous earthenware moistens the earth about the plant, and the evaporation from the surface of the pot, keeps the air cool and moist, especially within the space B, while the pot is generally a sufficient shade from the sun. The most tender and difficult plants to manage may be transplanted with success, even in dry weather by the aid of these protectors. From a long experience in patent business, I may safely say that inventions and improvements are very seldom introduced on their merits, and that the only ready way to promote the use of new improvements, is to secure them first by letters patent, and then proceed to the manufacture. I have yet another, and very valuable improvement, which I reserve for your next number; and I desire for the sake of bringing these inventions into the market, to dispose of the right to them to those who can undertake their manufacture. C. G. Page.

Washington, Sept. 13th, 1859.

HISTORY OF THE DELAWARE GRAPE.

BY CHARLES B. OTT.

Pleasant Valley, Bucks County, Pa.

Mr. Thomas Meehan:

Dear Sir.—You will remember that when I was at your place, you gave me a bunch of the Delaware Grape to taste. You will remember that I remarked that I thought we had the same grape growing about us in abundance. The public has been humbugged long enough, and I think it no more than just to make its true character known. I believe the history of the Delaware Grape is, that Mr. Prevost, a gentleman living at Frenchtown, N. J., received some grape vines from Italy, and this is a supposed seedling from those grapes. We have had this wonderful grape growing in our neighborhood at least thirty years,—long before we had the Catawba and Isabella. Mrs. Derr, an old German lady, first got them at Mr. Prevost's *at least* thirty years ago, and introduced them in our neighborhood. I have two large vines growing in my garden as thick as an arm, which were planted about eighteen years ago, and never bore scarcely any thing until last year, when I had about half a crop. I always thought, from the quality of the

grape, and from its being a poor bearer, that it did not deserve a place in my nursery.

Not long since there was a nurseryman, I think, from Jacksonville, N. Y., trying to sell fruit trees. When he found out that we had the Delaware Grape, he was for buying all the young vines he could get. If any person wants cuttings, I could supply him with a cart-load for merely the price of cutting.

Yours truly, CHARLES B. OTT.

[WHILE making some botanical trips on the upper portion of the Delaware some years back, we recollect a casual notice of a grape which we have often thought had a strong resemblance to what later years had taught us to call the Delaware; and throughout the discussions on the native and foreign origin of this variety, we have often wished we could call to mind the exact spot, or that our duties would admit of another few weeks' trip in this romantic region. However, we have done the next best thing. We have tried to put others on the track; but though we have got the grape from near a score of localities, on close investigation we cannot assure ourself with confidence that they are entirely wild. One thing, however, is remarkable,—none of the grapes are *exactly* the same. Some have the bunches loose, some compact, some shouldered, some with short bunches, and some above the average length; but yet in every essential quality they are Delaware, and nothing but Delaware. From one bunch we selected a portion and sent them to Mr. Garber "for a name." Mr. Garber replies, "Judging from the berries alone, they are the Delaware, and nothing else."

Those sent to Mr. Garber we got from Quakertown, Bucks County, and in reply to our inquiries, our correspondent says:

"The grape sent you is called in this neighborhood the *Ruff* Grape, as it is supposed to have been originally brought from New Jersey by a party of that name."

At our recent Horticultural Exhibition we presented four bunches, all from different localities, and selected for their varied forms, to our regular Fruit Committee "for name," without explaining any of the circumstances. They were pronounced "Delaware." One of these bunches came from Frenchtown, the place to which our correspondent also refers.

In our own mind, we have no more doubt about the Delaware being a native grape,—both pomologically and botanically,—than we have about our own existence; and, did not true courtesy demand otherwise, would alter the old couplet, which says that

"When Bishop Berkeley says there is no matter,
It is no matter what the Bishop says,"

into a pomological construction. However, if any one will take a few bunches of Delaware, and confine them for a few days in a close box, and then suddenly open the cover in the vicinity of his nasal organs, it will be saluted with that peculiar odor which may be classed with the Mus-cat or *pole*-cat order, according to the peculiar tastes or prejudices of the owner; but which is universally suggestive of an American origin.

With regard to its leafy characters, our friend, John Sherwood, at Bristol, Pa., will show any visitor a Delaware grafted on a Black Hamburg in his grape house, the which amongst the hundreds of foreign vines, if any hundred of our farm laborers do not at once pronounce it a "Fox" grape, we will "hold our tongue for evermore."

The variations in the bunches we have noticed, point to different seedling origins,—just as we have amongst us many varieties of the Isabella. We have travelled on foot over nearly every square mile in the State of Delaware, and in the woods and swamps of that State, many forms of Isabella are frequent,—the main difference only being that they are not quite as good as the cultivated. We have very little hesitation to infer from the above personal histories and our own observations on wild grapes, that the Delaware's home is on the hills and headwaters of the Delaware river, and that if the woods and wilds of those localities were searched, many similar varieties would be found, all referable to the same form, which might indeed result in its being considered a distinct species.

Our correspondent's ill success with it is quite exceptional; our own experience is, that when cultivated, few grapes will excel it in productiveness and general qualities.—ED.]

HYBRIDIZING.

BY DANIEL BARKER.

WEST MERIDEN, CONN.

The points to be gained by hybridizing hardy and greenhouse plants is the combination of the good qualities of one plant with another—or to combine the colors of an ill habited kind with one of good style with inferior flowers. Generally this comprises all that can be gained.

The mixture of color has been accomplished to some extent upon the garden Antirrhinum (flowers of which I forward for your inspection). You may see the result of what can be done by hybridizing this useful and beautiful plant.

The female plant was an imported one, named "Purity," (color white) grown in a pot, and the pollen applied was from the best yellows and crimsons, the result you have in the flowers.

For upwards of twenty years we have been deeply interested in hybridizing many kinds of fruits and flowers, and in contradistinction to the assertion of a great florist of the present day, that there is "nothing in crossing, as any one can do it." I have found some difficulty in the hybridizing of the Antirrhinum for seven years, and have never succeeded until now.

The hybridizing of plants and flowers I regard as amongst the most interesting and important of all horticultural pursuits—but unlike my good friend who "considers it nothing," I often find discouragements.

Being anxious for information I should be pleased to see the subject discussed in the *Monthly*.

[Mr. Barker's communication was accompanied by sixteen very distinct and beautifully marked blooms. —ED.

RUSTIC FLOWER BASKETS.

BY H. W. D.

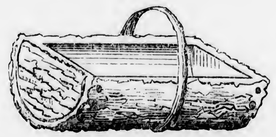
September 29th, 1859.

Mr. Editor:—

In your last number, a correspondent furnishes some designs for orchard stands and hanging baskets for trailing plants, which are quite pretty and easily made. But I have used, for some time, another kind, which I think are even more simple, and almost as pretty. I have never seen any made like them, although some of your readers may have done so.

These baskets are made of the bark of trees, of from 12 to 18 inches diameter. The bark should be taken off of a growing tree if possible, as it can be removed more easily. The bark of the tulip poplar (Liriodendron tulipifera,) I have found the best for the purpose, as it is very beautiful, and the trunks are straight and free from knots. With a hand or wood saw, divide the bark into circular rings or cylinders of, say 15 or 18 inches in length, then with a chisel divide these cylinders into two equal parts. Then strip off the bark gently with the chisel, taking care not to break it. It is better to make it up immediately into baskets, but if you cannot do so, it will answer to soak it well before using it. Be careful that the bark preserves the semi-cylindrical shape in drying.

Figure 1.



To make a basket like the drawing, Fig. 1, take one of these half cylinders of bark, curved just as it comes from the tree, and fill up the two ends with semi-circular pieces of bark, securing them with nails. The handle is formed of a piece of flour barrel or keg hoop, nailed at each side.

Figure 2.

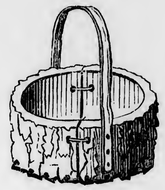


Figure 2 is made of two short half cylinders of bark, joined together with wire at the top. The bottom is formed of a circular piece of bark or common board, painted lead color, and secured with nails; the handle, same as figure 1.

Figure 3.

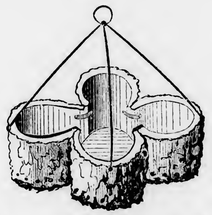


Figure 3 is formed of 4 pieces of bark, of a smaller size than that used in the other kinds. I have found the bark of the dog wood very suitable for this purpose. These pieces of bark should be nearly three-fourths of a circle in shape. The bottom is formed of a piece of board, cut with a compass saw, into the shape of what an architect would call a *quatre-foil*, or *four-leaf*, and the bark is nailed around this at the bottom, while the top is secured by wire, as shown in the drawing. These designs, I conceive, have the merit of adhering more closely to nature than most designs for rustic work, and this I believe to be the true criterion of taste.

In conclusion, allow me to say that I am pleased that your periodical devotes so much space to the *ornamental* department. Anything that serves to render our homes attractive is a positive blessing.

I am very respectfully yours,

H. W. D.

STRAWBERRY PLANTS.

BY ALBANY.

Dear Sir:

ALLOW me to call the attention of your numerous readers, (who, like myself, peruse your columns with pleasure and profit,) to the great difference there is in the quality of strawberry plants. A few weeks ago I got from a celebrated grower a few hundred plants of the Albany Seedling, which were taken, as their appearance showed, from a very thickly grown bed. The leaf stalks were from four to six inches long, and they appeared to be very fine, well-rooted plants.

A neighbor of mine got a lot from another grower, but a few days difference from the time I did. They seemed very small plants, and the leaves were very green. Instead of the fine long red roots mine exhibited, his had but a few white fibres. Both his and mine were planted with the best care by the same person, whom we both occasionally employ. My neighbor was very angry at the nurseryman who sent him his little wee bits of plants; while I confess I felt well pleased with mine. Well now, the result is, that I have not five per cent. of mine alive, while my friend has not lost a like proportion of his, and

now your servant doth mourn while he is being comforted.

But I have learned a lesson; for I think I can see that weak, drawn-up plants from the middle of a bed, are not so much calculated to do well, as a sturdy little runner that has already been hardened by the sun and air on the outside of the bed; and, moreover, that the little white roots they exhibit, are precisely *the* roots required. Am I not right? And do you not think that those advertisers who could say of their plants that they are not from crowded beds, would add considerably to the market value of their plants?

ALBANY.

[WE fully endorse what you say.—ED.]

NEW HOES.

BY L. J. T.

LAMBERTVILLE, N. J.

Thomas Meehan, Esq.:

DEAR SIR:—Your welcome messenger, the "*Monthly*" has safely arrived, and on glancing through it on its arrival to get a peep at the pictures—boy like—my attention was attracted to the "two Forks," which are doubtless very useful implements. I use my spading fork—without which no tool-house is furnished, as I would sooner be without spade and shovel—in the manner and for the purpose described by your neighbor L. B.; and it works admirably. And while on the fork question, please allow me to express my high appreciation also of the "Ladies' Garden Fork." Blessings on the man who invented each of these instruments, so essential, to me at least, in the management of my fruits, flowers and vegetables.

Thanking you most sincerely for introducing the Drag Hoe—I had one made of an old manure fork, flattening the ends of the tines and putting on a long handled shovel handle to increase the weight; so you perceive I got one up cheaply.

I wish to describe to you a couple of hoes, premising that I like them very much, being light, working easily, and doing their work well.

The first is four-tined, about the size of an ordinary broad hoe, being seven inches wide, and the tines four and a half long and two-thirds of an inch wide; this gives three spaces of one and a half inches each. The back is a part of, but thicker and of the same width of the tines, which are 3-16ths thick to give them strength, and bevelled on the back like those of the spading fork. To it is a handle $4\frac{3}{4}$ feet long, though I would have preferred one 5 feet, as one need not then stoop in hoeing unless he chooses, and can reach farther if desirable.

Its advantages are, that there is not so much danger of cutting the roots of plants and bushes—a very bad practice—enters the ground far more easily, is much better adapted to straightening up and clearing the plants from the earth thrown on them while plowing or harrowing, while it draws up dirt as freely as the broad hoe, and works so much easier, that it is greatly to be preferred. Mine is made of spring steel, and is, as all hoes should be, bright as a mirror.

The second is a smaller affair, made out of a mill saw blade, triangular in form $8\frac{1}{2}$ inches long, 3 in width at one end tapering to $\frac{1}{2}$ inch at the other. The blade part is toothed like a wood saw, the teeth being $\frac{3}{8}$ inch in length and bevelled on the back side to an edge, though not made sharp, the design of which is to *pull up* and not cut off the weeds that will steal in even the best vegetable gardens. The sides are bevelled, one left rather blunt for pulling, and the other made rather sharp for cutting, and using either of these sides you have quite a wide hoe.

The teeth do not in the least prevent the hoeing properties, as they are bevelled and made sharp all round. To it, I also have a long handle, and find it a very useful and convenient implement. I have now quite a family of hoes, comfortably and conveniently located in my tool house, named as follows: Broad-hoe, Tined-hoe, Tooth-hoe. Bayonet-hoe, Drag-hoe, and Scuffle-hoe. You may think I have enough, but if there are improvements show them up, as I am one of those who *go in* for labor saving machinery, and making work easy.

Yours truly,

L. J. T.

HISTORY OF THE DOUBLE WHITE POMEGRANATE.

BY G. C. THORBURN.

NEWARK, N. J.

[The following extracts from a private letter, with no thought of publication, we have been kindly permitted to publish. It was "brought out" by a notice in some foreign journal that a *new* Double Pomegranate had been detected in some garden in Illinois!

American Horticulture is grateful to those "old mortalities," who like "The Old Florist" and Mr. Thorburn, are making intelligible the nearly obliterated readings on its tablets. Will they not continue their worthy labors on other points?—ED.]

Its history is this—some twenty years since, one of the U. S. Ships of War was at Canton—the surgeon of which attended one of the Mandarins on the occasion of a severe illness, and was the providential means of his restoration to health, and feeling very grateful offered him handsome pay for his official services. The surgeon declined on principle and *rule* any remuneration. The Mandarin, however, who had an elegant garden "a la Chinois" was determined the generous American should be paid in some way, asked what he should do in return for such a valuable service—he replied that he would accept a few plants of such as were rare in his garden and could be spared, which he would present to some of his lady friends in Brooklyn. To this proposal "his Highness" gladly assented, and made up a case of beautiful plants, among which was this Punica, and with one other plant all that survived the voyage. The lady to whom they were presented turned them over to the late Mr. Parmentier to recruit from the voyage, and was finally given to him altogether. Probably the original owner finding it *slow* to flower (after so long a voyage), on Mr. Parmentier's death, it then being quite bulky, and the family selling their place to go into retirement, offered it to me for $50, which I paid cash down and took it to the cove, and kept it through all the *helter kelter* that befell my greenhouses, plants, &c., since 1845, down to last year, when, after many hard freezings, contrary to my orders, my foreman left it at a temperature of 10°, which so shook its constitution that I lost it, much to my regret, for next to my famous "Cockatoo" it was my *pet*. The Cockatoo, however, survives. He came from Sydney, N. S. W. in 1839, was presented to me by Mr. Robt. Gracie, and is in his prime yet, and will be, barring accident, some half century of the future. He was two years old when I got him. But this is a digression from a too long yarn—but it is early morning and the day's work not infringed to conclude the tiresome *yarn*. I propagated many of this pretty Pomegranate, and sold them at $3, $2, and finally $1 50, but never lower, and have now but two, no thanks to my gardeners, who seemed to be bewitched to neglect so rare a shrub, and glorious out of doors, south of Virginia.

THE MUSTANG GRAPE.

BY J. N. VANZANDT.

NEWTON HAMILTON, Mifflin Co., Pa.

Editor of the Gardener's Monthly:

DEAR SIR:—Having seen notices in the periodicals relative to the Mustang Grape of Texas. I wrote last year to J. Elliot, of Corsicana, Nevarro County, Texas, and in the fall received twenty-eight vines, which are now fine and thrifty, and promise to do well.

Mr. Elliot states in his letter to me that this grape grows so plentifully in his district that the whole population could not gather them. He says, "the Mustang is probably the most prolific grape in the world, I have seen enough on a single vine to load a wagon, the branches spreading twenty-five yards in every direction, and are filled with large bunches of these dark grapes, which are about the size of a red Morella Cherry. Its expressed juice is of a deep red color. I have no doubt it would improve under cultivation and become an extraordinary wine producing grape; it has been tried and yields an abundance of the juice. It grows wild in Texas, ripens in August, remains on the vine about six weeks, and gives ample time for gathering. It is much relished by the people."

The Mustang Grape is becoming very popular in the localities where it succeeds, and who are "in the secret" of its merits. At the present moment Mr. Affleck is setting out 30,000 on his Texas estate.

FRUIT GROWERS SOCIETY OF EASTERN PENNSYLVANIA.

[We extract from a private letter the following in reference to the above object, and are quite sure that it will not be necessary for us to urge on our Pennsylvania readers the necessity of sustaining such a laudable association. From the well known eminence in Pomological enthusiasm and knowledge of the chief officers, all of whom are amateur cultivators on quite an extensive scale, it is safe to predict for the society a wide career of usefulness.—ED.]

"Well, we met in Lancaster, and had a very interesting time—organized a society of fruit growers, and talked over many things. We have great reason to regret that no printed call was made for the meeting; one did not, and another thought he was not authorized, and so it was omitted—wholly through neglect or want of authority. It was the first attempt, and we hope to do better in future, and hope no one will take offence.

"I think you understand our object. We do not aim at exhibitions, or giving premiums; but to bring together the observations, experience and knowledge of all that we can enlist into a common stock for the benefit of all. We have committees at work all the time, making observations and recording facts. We have many diseases, insects and other maladies to understand; it is one of the most important items to try to discover the cause and apply the remedy. We do hope, by perseverance, that the day will come when we can prevent our pear trees from blighting; the fruit from cracking; grapes from the fungi, and rotting, &c., &c. The selection and preparation of soil—the best varieties, and almost every other feature is embraced. This is a business that will require labor, and much of it, and I do hope we can enlist the interest of the *Gardener's Monthly* to assist in encouraging and stimulating those who have ability to lend us their aid, and the readers generally to take more interest in growing fine fruit. By a multitude of observations we may arrive at facts."

LETTER FROM "CHEMIST."

PHILADELPHIA, September, 1859.

DEAR SIR:—You were certainly TART on my remarks, but still not as tart, I am sure, as your Rhubarb wine, though you did now and then dip your sugar spoon in it. I am glad I was not alone in noticing your article. Sharp Buck-eye lad—maybe he makes Champagne too—Longworth's Isabella Champagne *is* good and no mistake, and some of it as good as the very best Pink Vernay.

A man must mind his p's and q's with you, and end with a P.S. to pop his *Eyes* and cross his *Tees*, and excuse bad spelling—also to mind his stops—for the life of me I cannot look after these things (1)—nevertheless I must write you again. I like you, young man! I like your *Gardener's Monthly*. I wish it success and prosperity, and I see it is going ahead—ten pages of new advertisements, good! and I will do myself the pleasure one of these days and take a glass of your Rhubarb wine—*quand je suis malade!* Oh, that beautiful Weeping Spruce of Mr. Wales'! It stands next to the *Pinus patula*, or Fountain Pine.

Do give your subscribers a wood cut of this ornamental tree; I doubt if it is known here—nor am I sure that it is in Loudon's Arboretum—but you will find an account of it in the *Farmer's Magazine*, in an early month of this year. It grows in boxes or large pots, and would be very ornamental on a lawn or plat. It is not quite hardy, but you know more about

it than I do; all I know is that it is a lovely tree for the purpose.

Blackberry wine is good: so is Elderberry wine—the latter much resembles Port, and is far better than much sold under that name. Both would be much improved by dissolving two or three ounces of Red Argol of the shops, in boiling water, for every twenty gallons, and mixing if possible before setting to ferment,—at all events before bringing up to fine and settle in the cask; when in the cask, it is to remain until spring before bottling. *En passant*, bottled wine should not be drank before two months, as it gets what is called sick in bottle, and will not be recovered before that time. Grind the argol in a mortar, and wet it as you grind. It is not very soluble. This is much better than Cream of Tartar (the refined argol). In England they put it into all their fruit wines; it gives them a briskness and vinous smack, and takes off the flat and mawkish taste which fruit deficient in aroma and sweetness generally has. I hope to see the day when a glass of good home-made will cheer our evening parties, in addition to the other good things. Ladies will have as much credit for producing a good glass of currant wine as a good currant cake, a glass of currant jelly, or a plate of preserved fruit. A wife's glass of her home-made to her poor worn out "Pap" after his day's work, would be grateful and refreshing. Tomato wine; what of it? I hear it is on the *tapis*. Why not, when Rhubarb stalks are? no oxalic acid in that.

Do write us a recipe yourself, or get Mrs. M. to construct one. Tomatoes, water, sugar, flavoring, red argol, casking, fermenting, bottling and drinking, the beginning and the end. Now claret is good on tomatoes; epicures will thank you for the hint, not known to many.

I must not forget to notice your Peach Poison; what is in the Peach wont harm you if you drink the juice of a score, and your comparison of Peaches to Rhubarb is as unhappy as your comparison of the Bible to Holloway's Pills (2.)

Tomato Figs, I read of; they are done up and saturated with syrup. They make excellent figs; when dried slowly in an oven, pressed and boxed, will keep well. The pear-shaped are the best.

How did the Horticultural Society decide on the Hand-bouquet question? You did not finish your article—it was a weighty one. Splitting straws: there are more ill-matched unions in the world than bouquets, and many a trial, Brains *versus* Brains. Our friend Kilvington knows as well as any man what a pair of bouquets means; the lady with four hands might like to have her pair similar, but Lizzie and Elizabeth would like some little change, all special pleading.

Now to come to an end. I want to ask you how this flood of native grapes is to be stopped. What machine will separate the wheat from the chaff. E. & B. advertise in your paper thirty varieties, and yet many are left out, and more to come from others. You can at this time do much for us. Many are fruiting; many are reliably ready to be reported on, and you have the talent and means of condensation. Do let us have an article that we can confide in next spring, and not spend money and time for a humbug. $2 to $3 is asked by men for leave to grow one of their chickens. Are we to find out for ourselves and buy them at a cost of $200, and in three years find we paid too dear for our whistle? Money, patience, labor, gone—and a fresh supply of new ones to start again—so enlighten us, and save us from disappointment, if nothing else. The mania for native grapes is very like the *Multicaulis*, and indeed I am a little touched; and many of my friends. Do lend us a helping hand to go along right.

The Strawberries had, and still have their day; but they are nothing; in a few months we can get at least a *view halloo* of them, and the investment can be moderate; something under $3 will prove a score of kinds and they may go to the manure heap in a few months. But three years before we can taste those precious golden fruits is too bad for Yankee go-aheadism. Do give us a true, reliable and *fearless* report as far as you can. Your subscribers will thank you; and indeed they have some right to demand it of such a journal as yours (3).

Rose lists, too, want pruning. The Bourbons and Dailys, which kept our yards in a perpetual blaze, are now replaced by long stemmed H.P., not a flower. Now and then there smiles a beauty to say it is not their fault—"ill dressed, ill fed, badly brought up, what can you expect from us; we are a royal race, and require more attention in our education than those more lowly born."

Shall I write you something about roses? (4)

I never write a regular article for publication, (perhaps I can't,) but for a chat, all in the round with men like you, it amuses me to see how they take it; if they like it well and good, and if they don't—I care not, "I'm of the same opinion still."

[(1) We bore hard on "Mallie" with no malic-ious intention; but to illustrate accuracy in severe criticism.

(2) "Chemist" is unjust. The reference of Rhubarb stalks to the Bible was his own; we only added Holloway's pills to his own comparison.

(3) We stated last spring that up to that time, with the exception perhaps of the Diana and Delaware, we had not met any kind that *for general purposes* would enable us to dispense with a well-grown Catawba or Isabella. Some may be earlier, some hardier, and some better for peculiar soils or situations. As soon as we get through with the present seasons experience, we will again report.

(4) Nothing would please us better than to hear from you often.—Ed.]

STRAWBERRIES.

BY I. H. G.

Harmony Grove, September 13th, 1859.

Friend Meehan:—

I notice in the last issue of the "*Monthly*" that A. W. H., in his communication on Strawberries, writes Germantown as a Hermaphrodite plant. With us in this neighborhood, it is purely pistillate. Again, he recommends Hovey's Seedling and Germantown, which would infer that they are distinct varieties. I have fruited these two varieties, side by side, for three years, and cannot perceive any difference between them. I thought it had been settled, by public opinion at least, that they are identical. A. W. H. is mistaken, or the genuine variety has not been given to the public.

Let us hear from you on the subject, and have the matter righted.

FRUITS IN INDIANA.

BY W. G. BRISTOL, ROCHESTER, N. Y.

Lafayette, Indiana, September 15th, 1859.

Ever since the establishment of your interesting Journal, I have felt a strange interest in its welfare, and yet perhaps, I should not denominate it strange, since it is only natural that one should feel interested in anything which affords him as much pleasure as the reading of the "*Gardener*" always gives me. I should have taken some way of manifesting this interest before, but that I could never see how anything I could contribute would be any improvement on the excellent matter your paper always contains. I send you, enclosed, a list of a few nurserymen, whose names I do not find in your published lists.

And now that I have broken the ice by "these few lines," permit a few rambling remarks on other things, and first a word or two about Everbearing Raspberries, that is to say, about "Catawissa," and "Ohio Everbearing," for I think they are the only two that are worthy the name.

The Catawissa is an immense bearer, not only at its summer fruiting, but produces an abundant crop in the Fall. This character, I find, it maintains as well at the west as the east. The flavor is peculiar, and peculiarly good. The only objection to which it is liable, so far as my observation extends, is that the berry is too soft to bear transportation to market for any long distance. In this respect, the Everbearing is very valuable, as it preserves its form and flavor as well as the American Black Cap, and continues during the whole season to produce fruit on the ends of the young growing canes.

I expect that, in a few years, raspberries will be offered plentifully in market in the months of October and November.

I know it is an old story, to say that the Delaware grape is a great favorite, but really I was unprepared for the universal esteem with which everybody speaks of it. Apparently, every nurseryman in the country, cultivates it now, and no one who has fruited it can help praising it. It will soon be as well known as the Catawba or Isabella.

Yours respectfully,

W. E. Bristol.

[We hope Mr. Bristol will turn again to his Note Book of Travels for us. We are sure it contains much that will interest "our circle."—Ed.]

THE YOUNG CREATION.

No. 1.

BY JOS. AMRAM.

If a man is an enthusiast for trees, does that give him a right to step into the *Gardener's Monthly*? I denied this proposition to myself. I saw you, Mr. Editor, on a high stool—it was a three-legged one, representing Justice, Science, and Discipline—surrounded by rejected contributors; wielding pen, knife, and scissors, sternly dealing with the effluvia of the daily mail, and dropping sheet after sheet into the abyss below your feet.—An awful vision! Still, I believe, not far from wrong. Anyhow, editors have in our country succeeded in surrounding themselves, their pen and their sanctum with a mystic halo; they are intangible, invisible, all powerful, and the weak-minded can not help being impressed with something akin to awe. I am sure you will not print me, or I would not have run on in that way. Why then address you at all? Bless your editorial soul, do you not know that you are the representative of the public, and that it is a pleasure, a satisfaction, and with many, often a necessity, to write to the public; though the public may never see it in print. The public! vast amphitheatre of many-shaped heads, that want to be printed to!—let me compute you. There you are—on the front benches, 7000, perhaps 8000, subscribers, every one with a glad countenance, getting fat on the monthly meted-out food, and craving for more. Behind them, on the benches higher up, there you are, 3500, perhaps 4000 sons, daughters, wives, brothers, and otherwise immediate family of the before-mentioned and front benched subscribers, each of you showing the mark of the *Monthly*, which has got a little mussed up by your second-hand perusal. And there you are, belovedest of all the publics,—the accidental public, the chance readers,—sitting high up, till within the circle of the narrowing dome; friends, servants, borrowers, chums, male, female, and neuter appendices, of the before-registered people, you, who muster by the thousand, and perchance, by the tens of thousands, who relish a stray number of the *Monthly* as a man relishes a change of diet and a wholesome one—who are the pulp of new subscribers, the spawn of new enthusiasts—the multitude!

I bow low, and feel amazed. Still I progress, and if enthusiasm is an error, then ignorance is truly a blessing, and your charity will allow me to stammer forth my request.

Our *Gardener's Monthly* for September last, contained an editorial article on transplanting large trees. Nature was called an old fogy; people were lauded who wanted ready planted gardens as well as ready-made clothing, directions were given how to proceed, and not half enough stress was laid on the violence done to nature. Not half enough attention was drawn to the beauty of young trees, nobody was implored to let old trees alone, nobody was entreated, appealed to, *seu suaviter, seu fortiter*, to plant young ones instead. And the public was dismissed out of the amphitheatre, one-half groping back into darkness, the other half haunted by old trees, and stumbling over them sorely.

Has anybody lived with, studied, and lovingly raised young trees? (I plunge here at once into my young plantation.) Has anybody before me depicted and illustrated the young world of vegetation?—No voice answers.

Does anybody fully know all their beauty; can he *teach* others their infinite beauty? if so, let him step into this arena; let him lift his voice; all the peopled benches of this thronged amphitheatre are ready to listen. No man appears.

On me, then, small light of a glow-worm, the task of illumination. I have a small plot of ground, and I have planted it with trees. I have lived amongst them these fourteen years, and I have daily wandered amongst them and conversed with them. I know their inclinations, their aspirations, their physical constitutions, their divinity. I see them feed, and I see them sleep. There is as much variety in their countenances, as much variety in their ultimate usefulness or ultimate ornamental character, as there is variety amongst you, O Public! Nay, for every single poet, mechanic, statesman, bookworm, drudge, for every age, for the type of every profession, for each sex, for the expression of any character, from the tender to the cruel, from the merry-fellow to the stern man, which I see among you, I will, if you say so, find you its counter-type and its counter-expression, among my trees. This I say, to show that I know full well my trees, even to their secrets. But I have not the gift of classifying and noting down my observations; alas, I have not what is the first condition of the learned man, and the absolute condition of the teacher! Concentration I have not. Like unto the dried and compressed leaves of *Bohea sinensis*, I wish I could compress my knowledge like unto the same aromatic leaves, I wish I could put the infusion of the live word in it, and hand it round, though not in too weak a solution. As it is, I must restrain myself to the relation of simple facts.

Imprimis; I have planted evergreens from nurslings one year old, to sturdy boys fifteen and twenty years old. Any above six and eight years old, have shed the lower branches. Now what is an evergreen tree without its full green robe from top to bottom? Any spiral conifer is imperfect without the lower branches, whether you take the whispering White Pine the wild Larch tree, the stately Norway Spruce, or the graceful Hemlock. I enumerate these to show distinctivenes of character; still, *all* requiring their lower branches to be perfect.

Junipers and arborvitæs, the fastigate formed evergreens, get their lacework torn by the dying away of branches here and there—into first sickly green, then into coffee colored misery; generally on the off-side of the light, often on the cold northwest quarter. Cut them out—those branches—and all beauty will have departed with them. Plant the trees young, and they will ever smile at you.

The art of trimming evergreens,—a beautiful one—on which you, Mr. Editor, have given us many appreciable hints in your *Monthly*, that art is wholly inapplicable to large grown evergreens; since all coniferæ shed their old leaves forever, never to be replaced, the yearly leaves being always at the end of the branches. We may, therefore, in young trees, cut away crowding branches, or—with the view of promoting shoots in bare spots; with older ones, such shoots will not be coaxed out of the wood in that way; and, if we venture to cut away crowding shoots or try to round the tree off, the inner constitutional barrenness of the branches will be thrown forward into our eye.

With deciduous trees we can force an apparent thriftiness, bottom shoots, and general spray, by beheading and cutting-in severely. We attain that, though at the cost of the general look of the tree. But can we decapitate an evergreen? What is an evergreen without its head?!

May we then not look on evergreens as altogether unfit to be transplanted large, and so dismiss them? Do I see all heads nodding assent? Thank you, community and fellow-readers of the *Monthly!*

Let us now try the deciduous portion of my plantation. I must, however, begin anew, feeling that this else becomes too long. Disappoint me, Mr. Editor, print this, and of course the rest will follow.

Joseph Amram.

[Disappoint our respected friend! Of course we shall. To show his followers how weak he was, the good old king ordered the sea back, and to come no further. We shall not repeat the experiment, but profit by the example. Roll on pretty wave! And when the force of the next promised surge shall have been broken, on the shores of the *Monthly*, we may "describe our sensations" on the subject.—Ed.]

GAS TAR FOR THE PEACH BORER.

BY J. P. MERRIAM.

Sandusky, Ohio, September 2d, 1859.

Thomas Meehan, Esq.,

Dear Sir:—Feeling desirous to do any good in the way of assisting fruit growers in their hard job of fighting insects, &c., I wish to make public an experiment adopted by me last year to protect the peach, which is this:—About the time the borer was well enough commenced in his youthful progress to be easily found, I searched and cut all out of my trees, and trimmed and scraped off the bark, near, and in the ground, (after clearing away the dirt,) down to the collar of the root, and then rubbed the crevices of bark, &c., full of flower of sulphur, and mingled about a large heaping hand-full of sulphur with the dirt as I drew it up around the tree, and then replacing the dirt left it till spring. Then I cleared away the dirt close around the tree, and searched thoroughly again for the borer, and found only one large one left in full, undiscovered. I then painted from the collar up, six inches above the ground with gas-coal tar, and covered dirt back. I find the trees are almost free from the borer, except where the growth of the tree has opened cracks in the tar, in now and then a few scattering spots.

The trees have done remarkably also this season, growing vigorously, and seeming free from all disease, surpassing any previous year's growth.

I now shall see that all borers are out, and paint with tar again, and consider them free of all such troubles as borers, till spring sure.

Yours truly, Jos. P. Merriam.

[We have used gas tar this way on the Peach for the past eight years, with equal success. Some people complain that injury has resulted,—if so, there must be a difference in the strength of the tar in some localities, which it will be well to look after before using freely.—Ed.]

HERBACEOUS PLANTS.

BY HORTICOLA.

Washington Heights, New York.

Mr. Editor:—

At the close of your lists of Herbaceous plants in your last issue, you invite correspondents to add to the list, if there is anything good omitted. Being tolerably familiar with, and also very fond of this class of plants, I thought I would give you the names of a few more as a supplement to your already well selected lists:—

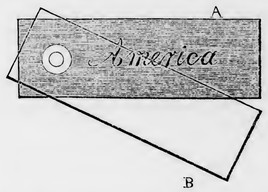
Lychnis viscaria rosea. Crucianella stylosa. Aconitum versicoler. A. volubile. Statice hybrida Euphorbia corollata. Funkia marginata. Coreopis lanceolata. Salvia azurea. Liatris spicata. Anchusa italica. Clematis erecta. Valeriana rubra. Lythrum roseum superbum. Delphinium sinensis. Veronica maritima variegata. To these I would add one or two Phloxes, which should always be seen in the herbaceous borders.—P. Van Houtti; Subulata; Madam Reudatter; Mr. Marceau; Madam Andreas; Empress and Heroine. Respectfully,

Horticola.

A NEW GARDEN LABEL.

BY C. G. PAGE, WASHINGTON, D. C.

Nurserymen have their own systems for labelling trees and shrubs—some map them, and a great variety of plans are adopted to preserve correctly the names. The reputation of a nurseryman is not a little dependent upon the accuracy of his labels. The propagation of error from bad labelling, is well illustrated by the following fact:—For ten years past I have tried to get a certain common old Rose, advertised by all nurserymen, and perhaps to be found in as many gardens as any other rose of its class. I have ordered it from three nurseries, and from each have received the same and the wrong rose. The error must have come from a common source, back of all of them. I was fortunate enough to get the genuine rose from Baltimore this spring. Lately I mentioned my trials to one of our nurserymen here, and he said he had been compelled to send to Europe last year for that "very rose."(1) I might expatiate upon the losses and the bad feeling growing out of bad labelling, but I forbear. The best of all labels is a strip of pine wood, painted white and marked with a lead pencil before the paint is dry or hard. These will last two years if the writing is strong, although many will fail before that time. It is not, however, always convenient to have fresh painted labels, and very often the writing upon a hard label is effaced in less than a year. Cheapness, durability, and convenience are the principal requisites of a label, and these I have combined in the following improvement.



A. represents a strip of pine wood about two inches in length, and from ½ to ¾ of an inch wide. This is joined to a strip of mica, B. of the same dimensions by a peculiar hinge which is made by a metallic eyelet such as in common use for fastening papers together, and also used for holes in shoes and other articles of dress. The work is all done with a small punch, by which the holes are made in the wood and mica, and the eyelet clenched. The cost of the punch is from 75 cents to one dollar, and the eyelets are 25 cents for a box containing 300. The eyelet draws the wood and mica closely together, and at the same time admits of free motion of the strips, while the hole serves for the string or wire; lead wire being by far the best for this purpose. Where mica is not at hand, both strips may be made of wood, but in this case you must open the label to read it, and this consumes time, and is not always convenient. When this label was first shown to some friends, fears were expressed that water would get in between the wood and mica, and wash off the marks. This point, however, I had carefully investigated before, and I can now bring the testimony of three years to prove that it is not necessary to make labels air or water tight to preserve them for a reasonable number of years. Labels are destroyed by the abrading action of dust, wind and rain. The lead paint and plumbago, or black lead from the pencil are both insoluble in water, and as long as the writing is screened from the mechanical abrasion or friction with the elements, it will last as long as the wood will endure. I have some labels in which the strip of wood is between two strips of mica, and thus the wood is thoroughly protected from the "*elements*."

Labels of this kind put out upon bushes three years ago, still exhibit the writing as fresh apparently as at first, and this seems to be a sufficient test of durability.

Chas. G. Page.

Washington, September 13th, 1859.

[(1) He might then have got the wrong name. Europeans are as careless as the others. In New York recently we saw some coniferæ from two of the first houses, wrongly marked; and in a collection of Cacti, some of the Mammillaria were labelled Echinocactus. —Ed.]

The Gardener's Monthly.

PHILADELPHIA, NOVEMBER 1, 1859.

☞ All Communications for the Editor should be addressed, "THOMAS MEEHAN, Germantown, Philadelphia," and Business Letters directed to "THE PUBLISHER OF THE GARDENER'S MONTHLY, Box 406 Philadelphia."

THE Publisher particularly requests that Advertisements should be forwarded so as to be received before the 20th of the month, or otherwise they cannot be inserted.

PUBLISHER'S CARD.

THIS periodical has now triumphantly passed over its most critical period, viz: its first year; and as it is soon to enter on another year, the Publisher, as an inducement to those persons who cannot afford to devote their time gratuitously to extending its circulation, begs leave to offer the following PREMIUMS.

☞ FOR EVERY CLUB OF ONE HUNDRED FULL PAID NEW SUBSCRIBERS, whose address and subscriptions are forwarded to the office, TWENTY-FIVE DOLLARS IN MONEY, or a WILCOX & GIBBS FIRST PREMIUM THIRTY DOLLAR SEWING MACHINE. This Machine was recently, after a severe trial and close competition, awarded the *highest premium* by the Franklin Institute, and is now the favorite with the ladies; doing its work rapidly and noiselessly, and not liable to get out of order, and very easily managed. For further description of it, see our advertising columns.

☞ For every Club of Fifty full paid new Subscribers, whose address and subscriptions are forwarded to the office, TWELVE DOLLARS AND FIFTY CENTS IN MONEY.

☞ For every Club of Twenty-five Subscribers, under the same conditions as above, SIX DOLLARS IN MONEY.

☞ For every Club of Five Subscribers, under the same conditions, ONE DOLLAR IN MONEY.

☞ Full paid Subscribers, received after the 1st of October, will be furnished with the October, November and December numbers of this year gratis, in addition to the whole of the copies for next year.

The Publisher hopes that all lovers of Horticulture will exert themselves to extend the circulation of the paper, so as to enable him to add still further to its value and attractiveness.

Gardeners out of employment cannot employ their time more profitably or usefully than in getting up Clubs.

TROUBLES OF FRUIT GROWERS.

MANY persons forget that Gardening is an *art;* and of those who do not forget this, there are many who think it one of very easy accomplishment. They act as if gardening were natural to a man, and go into it precisely as young ducks take to water. But not being ducks, they find the waters of Horticulture too warm for their delicate knowledge, and they retreat disgusted with it.

They tell you that this gardening business is not what it is "cracked up to be;" that they have done this and that, and the other, and have seen no profit, and reaped no reward. Their Dwarf Pears die, and their Standards blight; the borer attacks the Apple trees, and the curculio the Plums; the Strawberries prove all males, and the Raspberries get killed in the winter; and the Grapes—that valued fruit of the vine, which gave the chief coloring to the many day dreams of country life, that enchanted the citizen before his advent into the realities of rural affairs—why these either mildew, or rot, or what escapes these ills, never ripen at all.

He looks at his neighbor, and the same sight meets his eye. He takes up his daily paper and reads again of the same story. He is told that the soil is worn out; the "mineral matter" has been taken away and never restored; and that his only hope is in new soils and new climates, that have not undergone the depletory process.

And then he is told that if he cannot move his local habitation, he must take to glass, and fall back on the orchard house as his last resort.

No one values the orchard house more than we do, or is more in favor of its general adoption, both as a means of getting fruit early, and for the many points of interest connected with that mode of fruit culture, but that we shall ever have to resort to this as the only means of fruit growing is simply ridiculous and impracticable.

We repeat that the fault lies, in a great measure, in supposing a knowledge of gardening to be such a very easy thing to acquire.

There are of course, peculiar geniuses who can read of a certain matter, and straightway go and do it. Horticultural Tom Moores, or Sir Walter Scotts, who can imitate things the better for never having seen them. It is related of the latter, that when complimented on the surprising fidelity with which, in his works, he had described Melrose Abbey; he replied, that he was surprised himself, for up to that time he had never seen the place! But such talent, especially in the way of horticulture, is very rare, and for every hundred who try to be successful fruit growers without previous experience, and careful study, ninety-nine may expect to fail.

There is certainly no more difficult fruit to raise at the present time than the Plum, and yet we know of one firm, in the midst of a bad curculio district, who have this season, marketed eleven hundred bushels of this fine fruit; and this has been accomplished by sheer knowledge of their business, gained by a twenty years' experience, and by shrewd habits of observation and study combined therewith.

Anxious as we are to see cultivators of fruit increase, and the love of fruit growing spread far and wide, we feel that it is not just to citizens fresh in the country, to hold up such examples as so very easy of imitation. Fruit culture, as well as every other department of horticulture, is beset with numerous difficulties which require constant study and watchfulness to overcome, and to which it is the business of the gardener as a profession to address himself.

The great difficulty in fruit growing lies in the fact that circumstances are continually changing—new diseases—new insects, or the absence of favoring principles that once existed, call into play a varying knowledge. In all new countries, vegetation luxuriates. What is generally unfitted for healthy human existence, suits the vegetable department admirably. In California, with its ague and chills, and nameless disorders that shake the bodies and rack the bones of most of the new comers into her golden regions, fruits are produced of marvellous dimensions, and excellent quality. So it was at the original settlement of the Eastern States, and is still the case in all the new districts and territories that are being steadily opened to civilization. As fast as man renders these places healthy, he interferes with the most vigorous conditions of vegetable growth, and the plants, like the animals, become dependent on man—their conqueror—for whatever is to fully develope, and take care of them. A very little knowledge will raise fruit in a new country, but as it grows older, and the forests are cut down, marshes drained, and the whole atmosphere rendered drier and purer, other corresponding conditions of heat and electricity are changed also. Insects, favored by the same conditions that suit mankind also increase, and thus the very circumstances that smile on man's existence, compel him to employ his faculties to a severe extent to obtain the luxuries and comforts that once were so easy of accomplishment.

Our friends who fail in fruit growing must remember these things. "Eternal vigilance is the price," not only of "liberty," but of fine plums, large crops, and big pumpkins.

Do not be deterred by the cry that certain things "do not pay;" first succeed at any cost, and you will soon learn to reduce the expenses within a paying point if you so desire.

NOTES MADE ON RAMBLES.

WODENETHE, the seat of H. Winthrop Sargent, Esq. Our readers do not need to be told that this beautiful place stands second to none in the Union for the taste displayed in its arrangements, or the liberality with which its reputation is sustained by its worthy proprietor. We found so many things worthy of note, that we are sure will interest the majority of our readers, that we shall have to confine ourselves somewhat to the most prominent of the many items that struck us. And first with the evergreens. We were exceedingly fortunate in finding Mr. Sargent at home, and to the privilege of inspecting his many rare treasures, had the pleasure added of his kind guidance amongst them.

Every one, of course, has his own favorites; but to us few things that we saw afforded us more pleasure than the *Abies orientalis*. The specimen was about six feet high, very compact, and beautiful. We formerly believed this to be probably but one of the many varieties of the Norway; but so far as any one can judge of Conifers in the absence of seeds and cones, it seems very distinct. An *Abies Douglassii*, about six feet high, surprised us, as we supposed it would be too tender to luxuriate so well so far north. *Picea Nordmanniana*, one of the most expensive and beautiful of rare pines, was about 6 feet high. There was a beautiful *Picea pichta*, about 4 feet high. This is sometimes confounded with *P. Nordmanniana*, but is easily distinguished by its narrower leaves, which are of a pale green hue, and the leaves are longer towards the apex of the shoot, giving it a wedge-shaped contour. *Pinus Lambertiana*, was about 5 feet high, and spread about 5 feet in diameter. *Picea Pinsapo*, a beautiful specimen about 4 feet, we noted, but think we saw a finer one in some part of the ground. *Pinus strobus compacta*, a very pretty dwarf variety of the White Pine, is a beautiful thing for masses of evergreens. *Pinus ponderosa*, was growing rapidly, and we thought would be a fine object for growing in poor soil. *Torreya taxifolia* does very well here; and a healthy specimen of *Abies monstrosa*, was preparing to shoot away into its characteristic grotesque forms. *Picea cephalonica* was quite at home, and several very fine specimens were growing finely. A *Thuja filiformis* about 6 feet high, is probably the finest in the country, and a *Weeping Holly*, one of the things we have been recently reading about, but did not expect yet for a awhile to see. Here was a *Cunninghamia*, about 16 feet high, but had not, we believe, been yet exposed to the winter. We must not omit a beautiful specimen of the rare *Pinus patula*. Though, we believe, only in its third season of planting out, it is already 6 feet high. By the kindness of Mr. Moore, the publisher of Mr. Sargent's late edition of "Downing's Landscape Gardening," we have been enabled to present the annexed plate of this fine tree.

FIG. 95.—PINUS PATULA, at Wodenethe. Two years planted. Height, 5 ft.

Some specimens of *Taxus Dovastonii*, in tubs, were alone worth a journey to Wodenethe to see. This is the Weeping Yew, and they were grafted on the common upright English, and just now, in addition to their beautiful pendent shoots, were covered with berries of such a rich coral color, that even the privileged Holly itself might envy. For these, and also some fine aloes, sagos and other fine specimens, Mr. S. was then having constructed a handsome conservatory in addition to the several glass structures that already adorn the place. Amongst the deciduous trees, a very fine *Virgilia lutea* was very attractive, as was also a *genuine* purple leaved sycamore. Observing that many of the original trees on the place were at one time part of the forest, and in such cases have usually a very long-legged, disconsolate appearance; we inquired of Mr. Sargent for some solution of the difficulty in our mind. He cut them in very closely, which caused a new growth along the face of the old naked trunks, and thus produced the admirable results; information many of our readers will know how to profit by. A very interesting picture is a hedge of Norway spruce. We have never seen one so perfect before, and it illustrates the capability of the plant for the purpose to the fullest extent. It is not near as coarse as one would imagine. Indeed by a careful watching of the "times and seasons" of shearing, it may be rendered as fine as one can desire. The fruit and vegetable garden, possessed considerable interest to us, and reflected much credit on Mr. Walker, the gardener, as did, indeed, the keeping of the whole place. The Pears are mostly trained to trellises, *en espalier*, as the French call it, and were doing very well indeed under the treatment. On the grape trellis we came across a vine of the Shurtless seedling, a kind we thought was lost to the country, and about which several of our correspondents have recently inquired. It was, however, inclined to mildew, and seemed in a bad way altogether.

Mr. S. is going into the orchard house culture, and his young fruit trees in pots, were now plunged in the open border, under a mulching of coarse grass, bearing fruit pretty freely for the first season, and on the whole, highly encouraging.

Whoever visits Wodenethe will never forget the lawn. It is kept in order by a horse-mower, which goes over the whole three acres in about six hours. It has to be gone over about every ten days. The machine does not work well when the grass is long.

And on the opposite side of the river, and nearly opposite to Mr. Downing is the extensive nursery of M. SAUL & Co. We were unfortunate in not finding Mr. Saul at home.

B. A. FAHNESTOCK, Esq., Philadelphia. About the middle of the past month (October), we enjoyed the privilege of a short stroll through the plant houses and garden of Mr. Fahnestock, whose plants, as our readers remember, were mostly killed last winter, by an accident in the bursting of the gas-pipes, of which an account has already appeared in our paper.

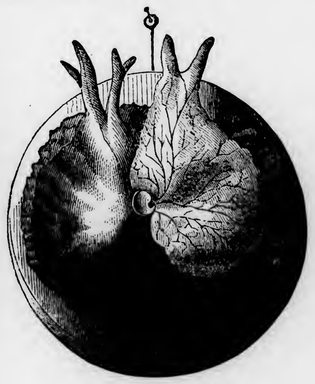
We were agreeably disappointed to find the house so well filled with finely grown specimens of rare and costly plants, and which amply testified to the liberality of the proprietor, and the skill of his gardener, Mr. Sutherland.

BEGONIA REX

The gem of the place is the Orchidæa House; and the gem of the Orchidæa House is a magnificent specimen of *Begonia rex*, which gives glory to a basket in its centre. The great beauty of this plant consists in its variegated foliage, and this is not of that miserable cast which oftener is suggestive of disease than beauty in some things, but rather of a lively combination of natural colors. It is an East Indian species, but does well in a greenhouse. We present a sketch above, and must compliment our artist on the faithfulness with which he has executed his difficult task. We think, a more beautifully executed wood-engraving has never appeared in any horticultural periodical in the world.

One of the beauties of Mr. F's orchidæa house, is in the arrangement. The walls are covered with different kinds of moss and creeping ferns, which are kept in a healthy growing state by the natural moisture incidental to a closely glazed house, and occasional syringings. Creeping through this diminutive vegetation was the very rare *Ficus barbata*. The small leaved *Ficus repens* is well known for its usefulness in similar circumstances. We counted no less than seven varieties of *Anæctochilus*, all of them amongst the most costly of plants. *Sonerilla Margaritacea*, the handsomest of all leaf plants,—if any are handsomer than others—was very fine. Mr. Sutherland says it succeeds better when allowed to creep somewhat than when tied up to stakes. It has puzzled the civilized world for years to know what the rice paper of the Chinese is made from,—and here is the real plant, in the shape of *Aralia papyracea*. The house itself is double-glazed—that is, having two roofs, one a few inches above the other. Mr. Sutherland does not find green mucus grow in the confined spaces, as has been objected to in the use of double sash.

The collection of Ferns is magnificent, probably embracing 300 species, and the which we are sure no one can see without at once admitting that beautiful forms of foliage and vegetation generally, are capable of conferring as much true gratification to the person of taste, as the most gaudy or highly colored flower. One of the most singular class of Ferns is the Elks horn family, called the *Platycerium*s. These appear like green skin, stretched to its utmost, and growing on flat boards, from which the fronds afterwards elevate themselves. The following sketch from nature, by our artist, represents one of the most rare and beautiful of the whole family.



PLATYCERIUM GRANDE.

In one of the stoves *Hedychium Gardnerianum*, with seven large spikes of orange-colored flowers, was, we think, as finely flowered as we ever saw

Tapania splendens makes a fine basket stove plant. Mr. Sutherland employs wire baskets, galvanized after making, costing about 75 cents each, and which are very neat and clean looking. In the open air we noticed *Cuphea eminens* in beautiful bloom. It requires two year old plants and the open air in summer to bring it to perfection. We do not esteem it as a house plant. *Cassia Corymbosa*, a dwarf, free flowering, and good kind, was also in bloom.

Questions and Answers.

I have a drained, trenched, and well sheltered border, on which I shall plant a dozen of the new Hardy Grapes. Will I do best to keep the roots through the summer *cool* or *warm*.—Cool by mulching, or warm by blackening stones, blackening the surface, and raking the surface every week?(1)

How shall I manage to propagate rapidly from these standard plants? Can I avail myself of the buds and young wood produced on the young plants, the first summer, (which, of course, have to be all cut away in the fall, any way?) Can I propagate any the second summer from these Standards, without retarding the formation of good wood for the formation of the frame-work of the future vine? Or, would it do better to plant another dozen, expressly to propagate from?—in that case how wide should I plant, and how should I manage best to multiply fast strong healthy plants?(2)

What is the best method of multiplying the Rochelle and Dorchester Blackberry?(3)

What is the best time to cut, and best method of wintering cuttings of the Gooseberry, Currant, and Hardy Native Grapes, to insure success? Could Sphagnum be rendered useful this fall, or through the winter in cicitrizing the ends of the cuttings so as to make them ready for striking in the spring? (4)

In your "Hints for August," you give a very timely one on grass for lawns, viz:—that "one kind is much better than a mixture, provided that it is suited to the locality—that a mixture is apt to give a spotted and variegated character, not at all pleasing, &c." My soil is a dark, deep loam, very strong and fertile, well drained, summer fallowed and subsoiled, gentle slope to the east,—a real moisture-holding soil. I thought of finishing the preparation soon, and sowing in March, so a frost would heave the seed in. What kind of seed would be the best then for this soil and climate? (43. 35. north latitude).(5)

Be so good as state what is the *size* and *shape*, also the best material and thickness of the strawberry boxes used in your city markets? As I am planting or extending a market fruit garden, an answer next month to the above will greatly oblige

A Delighted Reader of the "Gardener's Monthly."

[(1) If the soil is *deep*, that is, moist—the more warmth the better.

(2) The *best* way to propagate *rapidly* is to have a forcing house properly constructed; then, from a dozen plants, continuing through a season of twelve months, a thousand or more may be raised. You can not use growing wood from your out-door vines freely, without, in some measure, injuring the bearing prospects of your vine next season. In the winter pruning, what you cut off will do for propagation. Where rapid propagation is an object, plant especially for that. If you propagate by cuttings, you may plant three feet apart, if by layers, six feet.

(3) Chop up the roots with a hatchet into small pieces at this season, and sow at once like wheat, and plants will appear next year, "thick as blackberries."

(4) Cut off and plant in the fall, before the ground is frozen, then cover to prevent the frost throwing them out, and you will not lose five per cent. of either grapes or gooseberries. Leave little of the cutting above the ground—the less exposure the better.

(5) Probably, *Poa pratensis*. Will any of our correspondents, who have had experience in that Canadian latitude, answer more decidedly?

(6) They are made square, and so as to hold a quart.]

Protecting Plants, Rosary, &c.—1st. Is Passion Flower *incarnata* hardy enough to be trusted out of doors through the winter here. (I am about ten miles north of the 40th°.)

2d. I have several of the Bourbon, Noisette, Bengal and Tea Roses. Had I better leave them in the ground and try and protect them by some kind of covering or take them up and put them in the cellar. For two or three months in the winter the cellar has to be closed so as to be perfectly dark.

3d. Can I keep Geraniums, Fuchsias, Lantanas, Heliotropes, Cupheas, Bouvardias and Verbenas in such a cellar, or could I keep them in a pit, dug, say three feet deep in the ground, and rising, say eighteen inches above the ground, well banked up and covered with sash, with southern aspect, so as to get all light and heat of the sun?

4th. Can I raise the Japan Lily from seed; if so, how; at what time of year should the seed be sown, and how managed; sow in or out of doors, and how long before they would bloom?

5th. In the last number of the *Monthly*, there is a plan for a Rosary; how many roses is it intended to contain, and what kinds would be the best to put in it: the various kinds of Monthlies, the Hybrid, Perpetuals, the June Roses, or all these kinds together? Please give me your opinion of the plan for a small rosary, rudely sketched over the leaf; it is to be about twenty-five feet in diameter, and to contain thirty-two roses; this would bring them about four feet apart; the walks to be two feet wide. Excuse me for troubling you with so many questions.

Yours respectfully, James F. Sackett.

[(1st.) No, you had better protect the roots with leaves in winter, throwing on a little soil to keep them from blowing away.

(2d.) Darkness does not hurt if there be no heat. Light is only requisite when plants are growing. Tender roses can be effectually preserved by covering them entirely with earth as is done with the Raspberry.

(3d.) Fuchsias and Bouvardias, or anything that has hard wood, and shed their leaves; or Oleanders, or such evergreens as do not grow, may be; but soft-wooded things, as Cupheas, Heliotropes, and others that desire to keep growing, will not do.

(4th.) Sow in the open air at once. If the soil is suitable to them, they may bloom in three years.

(5th.) We only know of it what we have stated. Four feet is ample room. We prefer each class of roses by themselves. Your plan is a very good one, and similar ones are frequently employed.

Peach and Apple Nursery.—Please inform me through your almost invaluable *Monthly*, how best to start a Peach and Apple Nursery.

Yours most respectfully, H.

Toledo, O.

[A difficult question to answer generally. If the subsoil is retentive, the proposed spot should be drained and subsoiled, and if poor, dressed with well rotted stable manure, to the rate of fifty one-horse loads to the acre. The seed should be procured early in fall, or early winter, the apple mixed with an equal bulk of sand, placed in a cellar, kept slightly moist, and early in spring sown in the open air. The second season set them out in rows three feet apart, and twelve inches from each other, cut them down at planting, one-third, and bud in July or August.

Peaches must be sown on the surface, during early winter, covered a few inches with sand, and suffered to freeze. Early in spring sow them in a hotbed, and when sprouted, set out in rows, as recommended for Apples, and bud the September following. Some sow at once in the rows where they are to grow.

Grapes: Logan, Delaware, and Muscat Hamburg—*From Bissell & Salter, Rochester, New York.*—The great merit of the Logan seems to be in its earliness, and jet black color. The flavor of this specimen is not equal to other kinds. The Delaware sent is from two sources—one received from Ohio, by B. & S., and by the time it reached us, though apparently perfect, the flavor was indifferent—the other from B. & S.'s own trellises is excellent; and to our taste, superior to much in the way of foreign grapes. The Muscat Hamburg was delicious in flavor, and of the darkest jet black color; so much so that by holding it up to the sun, the claret of the interior was barely perceptible. As this was only sent out by the Henderson's last season, Bissell & Salter deserve the highest for affording us the opportunity to test it so early after its introduction.

Double Flower.—Can you inform me how to save the best seed from plants, or rather how to be most certain of getting seed from a Holyhock or other plant that will *produce* double flowering plants from the seed. It is said and found to be true that some seed from a double flowering plant will produce single flowering plants: instances, Holyhock, Double Sunflower, China Asters, &c.

Respectfully, T. G. Yeoman.

[Double Flowers often have stamens and no pistils, sometimes pistils and no stamens, and at other times neither. In the former case, double flowers are readily obtained by dusting the pistils of single flowers with the pollen from the double. Double Petunias are thus obtained. Hollyhocks also can be so raised. Often double flowers will have some good stamens and pistils and so fertilize themselves. Pinks, roses, and other things are instances. The petals of such must be carefully removed, as they decay, or the tender ovaries will rot. The first flowers that bloom on a plant have the most luxurious tendency, and will often of themselves produce double flowers. The Stockgilly is an instance. The seed from the central or first spike of flowers will often produce all double flowers.]

Protecting Pits.—*Mr. Meehan*:—I am having a pit made in the garden, to protect roses, azaleas, &c., during the winter. Will you not oblige me by giving some hints on the subject in your valuable paper? Must manure be placed in the bottom of the pit to heat it, or not? I find in your *Monthly* everything I need know about gardening except this. Excuse the liberty I take, and please oblige A Subscriber.

Mont Alto, Oct. 5th, 1859.

[A pit sunk, say 5 feet under the surface of the ground, will not require any manure or any thing to heat it with. If the sash is closely glazed, and no crevices permitted to allow the air to penetrate, azaleas, roses, and the like, will be preserved well from frost. The natural heat of the soil is sufficient to prevent freezing. Mats can be placed over the glass in very severe weather.

Packing Flowers.—Several correspondents send us flowers for examination, packed in dry cotton, which is time and money lost. Damp Moss is the article to employ.

The Bark of Foreign Grape Vines.—Our friend, Mr. Garber, in a private note, informs us that his examination of Foreign vines under glass, still convinces him that the bark is a good test of distinction between the foreign and native species. The bark does not peel off in long strips like the natives. In the oaks and the hickories, the bark often is very useful in assisting us to distinguish a species, and it is well worth examining, whether Mr Garber's observations hold good with all the foreign varieties.

Evergreens from Cuttings—*Buel Concklin.*—These must be protected from frost. This is easiest when the cuttings are in boxes, and a cool greenhouse or frame can be commanded. This is the usual nursery practice. They may be set in the open air, and covered with litter all the winter, and do tolerably. A *little* frost is not material, so long as freezing and thawing is prevented. They may stay covered the whole winter. Light is of no service when the thermometer is kept at about the freezing point. Boxes of cuttings could also be preserved if in a cellar, if kept just moist enough to prevent withering, and the temperature low,—say not above 40°.

Mountain Ash Seed—*George C. Merrifield.*—Put in sand through the winter, rather damp, and keep and sow precisely as apple seed. It then grows easily.

Germantown Seedling Strawberry.—*Several correspondents*—We have always considered Mr. Young as one of those unfortunates who "have greatness thrust on them." Six years ago he did not claim it as a seedling, we believe, but laid claim to superior culture by the use of night soil; *other* people called them Young's seedling, and the plants always sold high, whether he has "gone in with the current" since we do not know. We have seen fruit this season from Young's plants, received from him, which were *not* Hovey's and others equally authentic, which if not Hovey's might as well be.

Herbaceous Plants—*Correction.*—In our list of Herbaceous plants we gave *Salvia Liliana*. A friend suggests that we are mistaken, and on examination we find we are. It is not hardy. We had it planted in our herbaceous ground last year, and knew it was left out all winter, and that it is now blooming where it grew last year, but we find from the party who has charge of that part of our collection, that the roots were dead in the spring, and new plants substituted from the greenhouse to fill the vacancy.

Insects on Verbena Roots, Rose Cuttings—*By S. M. Coate.*—We do not know a certain remedy for the Aphis on Verbena roots, except taking them up, carefully washing, and replanting.

Rose cuttings can be put in from September till December, commencing with those tender kinds that are most easily affected by frost.

Rivers' Monthly, and Allen Raspberries—*Novice.*—My Dear Sir: I observe, in a late number of the *Country Gentleman*, an inquiry as to the identity of the "Allen" and "River's Monthly" Raspberries.

They are entirely dissimilar in every respect. Of fifteen varieties which I have fruited this year, not one could be mistaken for either of the above, so different from all other kinds, and from each other.

The Allen is a very hardy, robust plant, of rampant growth, large, dark green crumpled foliage, canes of large size with numerous blunt purple spines, reddish brown wood, laterals strong and numerous, commencing two feet or so from the ground; fruit of large and very uniform size, firm flesh, light crimson color, excellent flavor, and clinging slightly to the germ in picking. It is an abundant bearer, and when well established, requires neither support nor winter protection. I have not found it more productive of suckers than many other kinds.

River's Monthly has very erect smooth canes, of medium size and bright crimson color, covered with white bloom; almost devoid of spines; laterals few and slender, breaking 3 or 4 feet from the roots, forming a bushy, top-heavy head; requiring stakes to support it. The small spray shooting forth in Spring, from the old canes, dies down in Autumn. It is the most prolific of suckers of any raspberry within my knowledge. It is a very bad setter of its fruit, which is of small to medium size; (bloom often abortive,) light crimson color, mild sweet flavor, and if left a day too long on the vines, falls off and is quite insipid. The berries part readily from the stem. It fruits for a long season, but is by no means a monthly. I have now (September 11th.) a single branch out of six vigorous plants, covered with buds,—the first autumnal bloom I have ever seen on this variety.

Apropos, of Raspberries, I gathered yesterday the last of the summer crop of the Catawissa, and to-day picked the first ripe berry from the new canes.

Very truly yours, Novice.

Washington, D. C., September 16th, 1859.

Thomas Meehan, Esq:

Dear Sir—I send by this evening's express some blooms of the new rose, *America*, with specimens of its foliage. Both are second-rate, owing to a three months' drought. If we get rain before frost, and there are now symptoms of it, I hope to send you *first-rate* specimens. I send these now because I wish you to see its character under adverse circumstances. These flowers were taken from small bushes raised from cuttings last winter and they have not had a drop of water, except from the clouds, since they were set out this Spring. The vigorous and superior habit of the plant claims a large share in the excellence of this production. Have the kindness to give them a fair examination, and express your opinion.

Respectfully yours, Chas. G. Page.
For T. G. Ward.

[We expressed ourselves favorably of this rose last spring, from flowers raised under glass, these from the open air are of a darker color. In the bud the flowers are as perfect as those of Lamarque, and the color is very nearly as rich as Saffrana. We regard it as a good acquisition.]

Protecting Evergreens—*Thomas Meehan Esq.*:—I would be very thankful if you would give me some information in regard to the management of young Evergreens the first winter, that is growing in the open air (say Norway Spruce, Red Cedar, American Arborvitæ. I have kept them covered with a kind of a screen protecting them from hot rays of the sun, wind &c., in the summer. What would be the best way to protect them through the winter; or would they be hardy enough to withstand the snows, cold rains, &c., without being covered?

Mercer, Pennsylvania. James A. Nelson.

[Scatter leaves or litter over them so as to keep off the sun. They are hardy enough, but the freezing and thawing draws them out of the ground, and which the litter prevents.]

Delices D'Automne Strawberry—*From Dr. Thomas.*—Fourth crop this season from plants under glass; received in good order.

Apples—*From B. S. Ryder.*—One of them of such excellent quality that we shall figure it in our next.

Rebecca Grapes—*From Mr. Brocksbank, Hudson, N. Y.*—With just sufficiently perceptible odor on opening the box to indicate its native origin, we consider them fully equal to a Chasselas, and would place it in the first rank for quality as a native grape.

America Rose—*Specimens from Mr. Ward Washington.*—At this late date (October 15th) are remarkably good. One cluster of fine flowers would be no disgrace to a first class noisette in July.

Page's Improved Labels.—I send you some samples of the new labels that you may judge of their durability.

Mad. Droulin, 3 years' exposure; Andalie, 2 years' do.; Big-bud Noisette, 2 years' do.; small label marked Pear 43, 1 year do.; label, double mica, not exposed, merely a sample, with date of time when made. Glorie de Dijou, not exposed, warmth between mica and wood, not so convenient for use, but very durable. Yours, truly, Chas. G. Page.

[They are very satisfactory, and give us a high opinion of their value.]

Books, Catalogues, &c.

The Farmer and Gardener, is a new paper, published in Philadelphia, and edited by A. M. Spangler, Esq., and of which the first and second numbers are now before us. A close imitation of our own, in size, form, and so forth, we cannot but speak well of its general appearance. Mr. Spangler says he thinks Pennsylvania ought to be able to support an agricultural journal, as well as the other large States. The *American Agriculturist* says that it has thirty thousand subscribers, and that ten thousand of these belong to Pennsylvania, so that, if there has been no paper, it cannot have been for the want of readers, and our new contemporary will thus have a rich field for cultivation.

DESCRIPTIVE CATALOGUES.

W. R. Prince & Co., Flushing, L. I., N. Y. Fruit and Ornamental Trees. We doubt whether anything in cultivation is omitted from this large list of 64 pages of close print, and the names and proof reading remarkably correct.

H. A. Dreer, Philadelphia, Pa. Trees, Plants, Roses, etc., the latter embracing many new varieties.

Aubry & Souchet, Carpenter's Landing, N. J. Fruit and Ornamental Trees, principally the former.

Hoopes & Brother, West Chester, Pa. Fruits, Ornamentals, Roses, etc. We count twenty-one Oaks, fifteen Magnolias, and eighteen Ashes in the list, which is altogether one of the handsomest on our table.

Andrew Bridgeman, New York. Dutch Bulbs and Flower Roots, accompanied by a box of the roots themselves, from which we are enabled to say of our own experience that they are of the finest quality.

R. S. Reeves, Keysburg, Ky. Principally Fruits.

S. B. Marshall, Massillon, O. The hints on transplanting are very good, and the catalogue altogether interesting.

E. Y. Teas, Richmond, Ind. An interesting one in many respects. For instance, we find by the long list of grapes, that the "fever" has broken out in the Hoosier State; and also that Mr. Teas will supply his customers with the *Gardener's Monthly*, on very favorable terms.

C. Beadle, St. Catharine's, Canada West. Plums grown in large quantities.

H. A. Mish, Harrisburg, Pa. Sheet circular.

Montgomery & McGredy, Nashville, Tenn. One of the best Southern Catalogues on our table, excelling particularly in the ornamentals.

H. A. Dreer, Philadelphia. Bulbous Roots. With excellent directions for their management.

John Donellan & Co., Rochester, N. Y. Roses, Pæonies, &c. The Pæonies especially are freely described. We counted 30 varieties.

WHOLESALE LISTS.

D. Dauvesse, Orleans, France. By W. P. Sheppard, New York. Fruits and Roses, principally, with some other choice things.

A. Fahnestock & Sons, Toledo, O. Fruits, ornamentals, bulbs, &c.

Daniel Brinckerhoff, Fishkill Landing, N. Y. Mr. B.'s stock seems to embrace many things not often enumerated in wholesale lists.

W. Parry, Cinnaminson, N. J. The small fruits extensively, but not by any means exclusively.

J. W. Adams, Portland, Maine. Either from the nursery—or native trees from the woods.

Hoopes & Bro., West Chester, Pa. Amongst other grapes, we notice the *Miles*, which they describe as a new grape, and amongst the earliest known, and they have twenty-two in their wholesale list.

Richardson, Warren & Co., Olcott, N. Y. Fruit and ornamentals.

E. C. Frost, Havana, N.Y. Fruits, stocks, seeds, &c.

Samuel Feast & Son, Baltimore, Md. Fruits, Ornamentals, &c. A very fine Catalogue. Camellias, Roses, and Hothouse Grapes, occupying a prominen-portion. Also, from the same, Circular of the Fillmore Strawberry, with prices, &c.

We cannot lay aside our pen without congratulating our friends on the great improvement most of their catalogues exhibit, in accuracy, over last season. When care is betowed on the correctness of names and descriptions, we have the more confidence in the stock they represent.

Obituary.

MR. THOMAS S. NUTTALL.

Just as we are going to press, the papers inform us that this celebrated man died at his residence in England, on the 10th of September. The greater part of Mr. N.'s life has been spent in this country, and Botany and Arboriculture owe much of its present position to his distinguished labors.

Born a printer, and with very few advantages that many of his contemporaries possessed, his life and career show remarkably what energy and perseverance can accomplish. Though so short a period has elapsed since the announcement of his death, the circumstances of his career crowd on us so freely, and are of such a highly interesting character, that in order to make it complete, we defer further notice till our next issue.

New and Rare Fruits.

Cutter Strawberry.—J W. Manning says in the *Maine Farmer*, was first taken from the wild pasture, a native seedling of New Hampshire. It is a strong grower, hardy, and endures the winter without covering. Berries of even size, very large, many of them four inches in circumference; color, light red; form, obtuse cone with a neck, easy to hull.

I gathered fruit from the bed thirty-five days in succession, five to eight days longer than any other variety. I cultivate, on the same kind of soil and with precisely the same treatment, the Hovey Seedling, Boston Pine, Jenny Lind and Early Virginia; the two last were small; the two former produced some very large berries, but on the whole very uneven in size. None of these produced so much fruit by at least one-half as the Cutter.

Lenoir Grape.—The *Southern Cultivator* says:—The Devereux, Ohio, and Lenior, are nearly if not altogether, the same; as are, also, the Herbemont and Warren of most collections. With some, however, the "Guignard," of South Carolina, is called Herbemont, and this (Guignard) Grape differs materially from the Warren.

New Foreign Grape — *Buckland Sweetwater.* — The *Cottage Gardener* says:—Mr. Ivery, of Dorking, produced a noble bunch of his *Buckland Sweetwater* Grape, weighing certainly not less than 2 pounds, broadly shouldered, and remarkably well set. The berries were roundish, inclining to oval, and were just beginning to assume their amber tinge. They were very richly flavored and vinous. Altogether this variety has stamped itself as one of particular excellence, and as a valuable addition to the collection of White Grapes, which ripen perfectly in an ordinary vinery.

New Black Apple.—An anonymous correspondent of the *Am. Farmer*, gives the following account of a new apple. From the account we doubt whether it is very distinct from some others of that class, but give it to our readers as information.

"The Black Apple is also a seedling, and originated in the county of Hardy, though its origin dates much farther back than the Schell. It is call the black apple from its dark olive or smoky color, though it bears no relation to the black Coale family, nor the least resemblance to it. The tree is of tardy growth, yet it attains a gigantic size, and is hardy as a forest oak. It is a never-failing bearer, and its yield is enormous. I have known a full road wagon body taken from a single tree now standing in the orchard of the late Felix Seymour, Esq., near Moorefield, the county seat of Hardy. The tree sends up no suckers, but is readily propagated by grafts, which take kindly; the fruit is of medium size, but somewhat irregular, of rather oblong shape. It ripens in November, and keeps for years; it is of rocky hardness until pared, when the flesh is of a crisp and sugar grain, and of yellow hue, and of the most exquisite flavor, resembling much the Greening, but of superior taste.

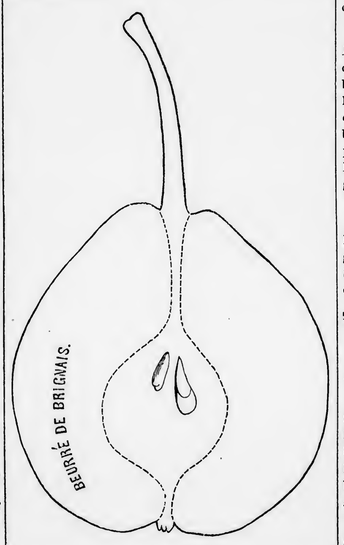
Des Nonnes, or Beurre de Brignais Pear——My Dear Sir: I send you herewith, samples of three Pears, of great excellence, destined, I think, to take rank among the "best."

The Poire des Nonnes, (Nun's Pear,) was grown on a tree I received last autumn, from Messrs. Smith & Hanchett of Syracuse, N. Y.

It is an abundant and early bearer, both on Pear and Quince, and ripens its fruit equally well on or off the tree. I should be pleased with your report of its qualities, as well as of the Beurré Nantais, (*some* say "*de*" Nantais, as being named after a gentleman of that name, and not after the town of Nantez,) and of the *new* Frederick of Wurtemburg, or Beurré de Mongéran of the French Nurseries. For the two last I am indebted to Mr. Thomas W. Field, the accomplished author of "Pear Culture," on whose ground, near Williamsburg, New York, I saw the largest and thriftiest collection of them I have yet met with.

Can you name the brown russett, bergamot-shaped Pear I send? Is it the Beurré Fortunée, or the Fulton? Truly and Pyrically Yours, Novice.

[We had the following prepared when we received our friend's note—



Under the name of *Des Nonnes*, this pear is becoming very popular in the South, and other parts of the states, so much so that we have decided on figuring a specimen now before us. We do not consider it of the highest flavor, but it is particularly juicy and refreshing, and will, on that account, become a favorite. Fruit above medium, conically round, skin greenish yellow, covered with brownish gray dots; stalk long, curved, inserted in a narrow, uneven cavity, calyx closed, basin shallow; flesh rather coarse, very juicy, melting with a brisk perfumed flavor. September 10th. This description is materially the same as Mr. Downing's, who adopts the name we have given.

The following description of *Beurre Nantais*, we made from the specimens sent by "Novice." The other pear was not Fulton:

Skin clear, golden yellow, above medium, (Mr. Downing says with a red cheek.) Stalk, large and stout, inserted by a lip with little cavity, calyx rather large, open, flesh melting juicy, of first quality. End of September.

Bagley's Everbearing Raspberry, says the *Homestead*, was introduced by Augustus Bagley, of New Haven, and is held in high estimation for its late fruiting.

Schell Apple. An anonymous correspondent of the *Am. Farmer*, says:—This originated on the small farm of an old gentlemen by the name of Schell, situated on what is called Knobley Mountain, in the county of Hardy, in Western Virginia, where the original or parent tree is said to be yet standing, and continues to bear. The fruit is large and beautiful, of a bright yellow color, round and a little feathered at the poles. Its flesh is a fine glistery gold color, and of exquisite richness of flavor, slightly more acid than the Hamet Queen, and very juicy. It has no superior as an eating apple when fully ripe, which it is in the middle or latter part of August.

Black Tennessee Grape—Of a quantity sent for examination, Mr. Nelson says in the *American Cotton Planter*:—"Black Tennessee is a fine and sweet grape. The bunch is large, long and shouldered. Berries of medium size, compact; not black, as the name indicates, but brownish crimson, covered with a blue bloom, very juicy. It resembles the *Pauline* very much, as far as I can judge, by not having both kinds together for comparison. If some of the foliage and wood had been sent with it, it could easier have been decided. It is decidedly the best grape of the lot.

New Grape from Cleveland—*Thomas Meehan, Esq:*—Dear Sir. I send you with this a few bunches of a new native seedling grape, found in this neighborhood. We think it quite an acquisition. They have been ripe some three weeks, one or two weeks earlier than the Isabellas. The bunches sent are below the actual size. It is unquestionably a native, perfectly hardy; a strong grower and good bearer. Please submit it to your Horticultural Society, and get an expression of their opinion as to its merits.

Yours very truly, Edward Taylor.

[Decidedly the *best* native grape of some seventy kinds we have tasted this year. We handed the grapes round amongst the principal members of the Society last evening, and *all* of them thought as we do.]

New or Rare Plants.

Rhododendron Kendrickii, *var.* latifolium (*Broad-leaved Kendrick Rhododendron*).—Native of the Bhotan Mountains, at elevations of 7000 feet, where it was found by Nuttall's nephew, Mr. Booth. "It is hardy in the climate of Cheshire." Flowers large, bright scarlet, and very beautiful.—*Botanical Magazine, t.* 5129.—Half hardy.

Monochætum ensiferum *Sword-bearing Monochætum.*—"It is a native of the mountains of Oaxaca, in Mexico, where it appears to have been discovered by M. Ghiesbrecht." Flowers purplish-rose color. Its specific name seems to allude to "a lengthened, bright red, cultriform appendage" of each sterile anther.—*Ibid t.* 5132.—Stove plants.

New Annuals.—A friend sends us *Obeliscaria pinnata*, a very pretty flowering plant, growing 18 inches high, and having flowers of a crimson color, resembling a Rudbeckia in shape, and a Coreopsis in appearance. Our friend has just "imported it," when, singularly enough, it is a native plant. *Polycolymna Stuartii* is an annual of the "Immortelle" class. Yellow, with a white disk; pretty, but not striking. *Schistanthe peduncularis*, allied to Alonsoa, but not worth growing; the flowers are so very small proportionately to the coarse foliage.

Lobelia Trigonicaulis.—A new species from Moreton Bay, figured and described by Sir Wm. J. Hooker. A beautiful dense growing variety, each plant covering a space of ground 12 to 18 inches in diameter, with its ample bright green foliage (in the way of Verbena Maonetti) and large light blue flowers with fine white eye. It will be much in demand for bedding purposes.

Cheirostemon Platanoides (*Mexican Hand-plant.*)—Of this very curious and brilliantly-flowered tree, we cannot do better than quote the following from Sir W. Hooker's notes:—

"It was towards the latter part of the last century (1787), that a scientific expedition, under Sesse and Mocino, was sent by the Spanish Government to Mexico, then called New Spain, and where the attention of the botanists was attracted by a remarkable tree, venerated from time immemorial by the Indians on account of the peculiar structure of the large and very conspicuous flowers, which have their five stamens so arranged as to resemble the human hand, including the arm and wrist. It was believed to be a solitary tree, of which no other example existed, or could exist, in the world. Nor was it till about 1801, that a pupil of Professor Cervantes detected forests of the same tree in Guatemala, and near the city of that name. 'This tree had, consequently,' write Humboldt and Bonpland, who gave to this new genus the name of *Cheirostemon*, 'been transported by the Indians of Toluca from its native woods, and that, too, long before the conquest of America, since it is recorded in the writings of authors previous to the celebrated expedition to Mexico, under the Indian name *Macpalxochiquauhill*, signifying *Hand-flower-tree.* It was, however, never botanically noticed till 1795, and then by Professor Cervantes. So great an object of curiosity was this with all the inhabitants of New Spain, that the flowers were gathered with avidity by the Indians even before their full expansion, and thus seeds were not allowed to ripen. Cuttings were transported to gardens in Mexico, by Sesse and Mocino; and at length their labors were rewarded by one, and only one, succeeding.'

"Humboldt and Bonpland brought seeds to Paris on their return from Mexico, but none of them germinated. More perfect seeds were afterwards readily obtained. Humboldt, in 1811, speaks of its being in collections at Paris and Montpellier; and not long after, Mr. Lambert seems to have introduced it to English gardens. A fine plant had been long in cultivation at Kew, where it has attained a height of twenty-three feet, but never showed any disposition to flower. Happily Charles Dorrien, Esq., of Ashdean, has been more successful, and fine and perfect flowers were produced in his garden in the spring of 1859. The specimens arrived in the most perfect state possible, and were accompanied by the following notes:—'The tree is evergreen, but loses part of its leaves in winter, so the branches are bare in the lower parts. It seems to like a temperature of about 50° or 55° in winter. The first blossoms are (May 27th, 1859), gone off, but there are now four more expanding. The flowers secrete (in the nectaries at the base within) a quantity of liquid like sugar-and-water, tasting and smelling like toast-and-water. Each blossom continues about a fortnight in perfection before it begins to fade. The plant propagates easily by cuttings.'"—(*Botanical Magazine, t.* 5135.)

Rhipsalis sarmentacea (*Sarmentose Rhipsalis*).—Native of South Brazil. Grows on the branches of trees, and, perhaps, on rocks. Flowers white.—(*Ibid. t.* 5136.) *Cactacea.*

Myosotidium nobile (*Antarctic Forget-me-not*).—This beautiful Boragineous plant is a native of Chatham Islands, near New Zealand. Blooms in March and April. Flowers blue in the centre, with white edges.—(*Ibid. t.* 5137.)

Aerides Wightianum (*Dr. Wight's Aerides*).—A native of Ceylon and other parts of India. Blooms in June; flowers yellow, but "its chief beauty arises from the varied color of the labellum when closely examined."—(*Ibid. t.* 5138.) *Orchidacea.*

Areca sapida (*Southern Areca or Betel Nut*). Native of the northern and middle islands of New Zealand. This Palm flowers here in winter.—(*Ibid. t.* 5139.)

Dipteracanthus affinis, is described by the Hendersons, as a neat Laurel-like leaved hothouse Shrub, with brilliant scarlet salvar-shaped blossoms; and *Salvia tricolor*, as a neat, dwarf, odoriferous Greenhouse Shrub, with pure white flowers, richly tipped with carmine scarlet.

Dianthus Chinensis Heddewigii.—This splendid variety is no doubt the most beautiful of all. The whole plant is scarcely one foot high, and very bushy; the leaves broad and bluish green; whilst always thirty to forty flowers are at once in blossom, and every one measures nearly three inches in diameter—the little bush is totally covered with them. I have already now, in the second year, a great number of variations in color, and it is expected that in time they shall show still more. *We can endorse all that M. Heddewig says in its favor, as we have grown and flowered them ourselves during the past summer; and on one plant taken indiscriminately we counted upwards of sixty blooms and buds.—Gardener's Chronicle.*

Pteris argyrea, (Moore.) *Variegated Fern.*—Mr. Veitch says of it:—"It is of *noble aspect* and free growth, perfectly distinct and novel in its character, the pinnæ on every frond as well as their branches having a broad central stripe of glistening silver, which, in contrast with the bright green, produces a most charming effect.

And the *Cottage Gardener* says of it, and some other of his plants at the Crystal Palace Show:—His *Pteris argyrea* is just what he says it is. His *Selaginella Lobbii* is like some drooping Cypress. *S. atro-viridis*, is also very fine. A new specimen of Cissus, and lots of others which had prizes. Here stood a new *Richardia* or *Calla alba punctata*, of Hooker; I believe it had a yellowish flower, is from Upper Egypt, and has stood out in England, at Raby Castle, last winter, without protection. A fine thing, introduced in 1858.

A New Begonia from *Rex*, and much finer, called *Marshallii*, after the owner thereof, the well-known horticulturist of Leeds, with whom is Mr. Franklin, once of the Lawrencean collection. The leaf is all grey, except a green star in the centre, and a green Vandyke-like margin. A noble plant.

New Dahlias.—At the Horticultural Society of London on August 12th were awarded:

FIRST-CLASS CERTIFICATES TO

Dahlia William Dodds, from Mr. Keynes, Sailsbury.
Dahlia Lady Douglass Pennant, from Mr. Keynes.

COMMENDED.

Dahlia Rev. Joshua Dix, from Mr. Keynes.
Dahlia Sir G. Douglass, from Mr. W. Dodds, Salisbury.
Dahlia Mrs. Col. Vyse, from Mr. C. Turner, Slough.
Dahlia Splended, from Mr. Green, High Cross, Ware.

And Mr. Beaton says of the Exhibition:

Messrs. Turner, Keynes, and Dodds, were strong in seedlings, and certificates were abundant. Mr. Keynes stood at one end: his *Mrs. Wellesley Pigott*, a splended white, had a certificate; *Lady Douglass Pennant*, ditto, a fine lemon yellow; *William Dodds*, ditto, a fine orange yellow; *Sir George Douglass*, ditto, perhaps the best of them, orange very deeply edged with crimson, a splendid combination of the very richest colors; and *Neville Keynes*, an orange tipped with peach.

Probably Mr. Dodd's *Lilacina variegata* will turn out to be the most popular Dahlia of them all, although it had no prize, being a true bedding kind. It is a charming light lilac, and all the leaves are variegated; is of the same size and habit as *Profusion;* and hereby I do stake my fortune on the fact that *Lilacina* will pay best of all the seedlings at this Show, although no prize or any judicial notice was taken of it.

Some very pretty fancy ones from Mr. Rawlings had no prize either. The richest colored in Mr. Turner's seedlings were *Purple Standard* (but it had no prize); *George Elliott*, a rosy-purple, very pretty (had a certificate; *Harlequin*, orange and crimson, ditto; *Queen Mab*, ditto, a light-tipped red; *Pluto*, ditto, a purplish-red, tipped light; *Mrs. H. Vyse*, a shaded deep, lilac ditto; and *Beauty* ditto.

Domestic Intelligence.

Destruction of Trees in Cemeteries.—We notice by the *Troy Whig*, that the citizens are in great trouble about the action of the Trustees of their cemetery authorizing the lot holders to destroy the trees whenever they so will it. A recent issue says:

"Mr. Sidney, the landscape gardener, who drew the original plan—the best landscape-gardener perhaps in this country, and whose constant counsel was considered valuable, until within a few years when the Trustees concluded to abide by their own decisions in regard to matters of taste—has recently protested against the removal of these trees, describing them as the most beautiful feature of that particular landscape, and insisting that they could be comdemned only by egregious stupidity and ignorance."

Downing says—"The great elements of landscape-gardening are TREES and grass," and that "a country-place without trees is like a caliph without his beard."

Notwithstanding, we presume, the Trustees will be like many others so situated, they will value more the few dollars they get for the lot without the trees, than the many dollars the *reputation for beauty* with the trees, would bring into their treasury.

Wine Making in Massachusetts.—Mr. Simon H. Allen, of Shrewsbury, Mass., is now beginning to manufacture wine from our native grape on a large scale. Last year he bought all the grapes he could find, and manufactured therefrom six thousand gallons of wine.

Central Park, N. Y.—About 3,700 laborers have been employed during the summer. The winter force will be from 1,000 to 1,500 men. The Amount paid to laborers is $1 10 per day; $2 20 for a man, horse, and cart; $2 50 for a man, wagon, and two horses.

Mr. Olmstead the designer and superintendent has left for Europe for the benefit of his health.

A Large Strawberry.—In strawberry production Santa Cruz beats the world, thinks the *Sentinel*, and mentions a strawberry of the Chili variety measuring eight inches in circumference, as the largest strawberry on record. It was grown in the garden of Mr. Swain of that place.

What a Grape Vine!—The Editor of the *Farmer and Planter* says:—One of the finest vines in the South, is at the residence of Mrs. Pickens, Alabama. This vine covers more than an acre of land, and produces immense crops. A regular addition of cedar trellis is provided annually for its extending growth.

Strawberries in California.—The *California Farmer* says:—The great amount of strawberries which the sudden warm weather threw into market about one week since, are beginning to pass away, and now the scarcity has advanced the price. This fruit having been sold as low as ten and twelve cents, has again gone up to thirty-seven, fifty, and even choice varieties and qualities, to seventy-five cents per pound. This surely pays. Very shortly the new crop will be in market and the price down again.

[How many crops of strawberries have they in California?

Poisonous Mushrooms.—A family, named Fisher, residing in New Castle, Pa., was poisoned, a few days ago, by eating toad stools, in mistake for mushrooms. A child about two years old, died from the effects, but the others are recovering.

Large Live Oak.—At Ashley Hall, the residence of the Hon. W. Izard Bull, on the Ashley River, about five miles from Charleston, S. C., I measured one which is 30 feet in circumference at the ground, 28 feet in circumference where the limbs start from the body, and 18 feet 6 inches in circumference at 4 feet

from the ground. The diameter of the circle overspread by its limbs, is 159 feet.—S. B. Buckley in *Country Gentleman.*

The *California Culturist* notices that a first rate Seedling Apple has been raised by Mr. Smith, of Alvarado. California is not only progressing, but *improving.*

Largest Nursery in Illinois.—Messrs. Ellsworth & Co. we believe, have the largest nursery in Illinois. The first premium was awarded to it by the State Agricultural Society last year, for being the largest and best conducted nursery in the State. They have the largest and best greenhouse we have seen in that State, a splended stock of ornamental trees and shrubs, fruit trees, &c.—*Valley Farmer.*

Fine Illinois Nursery.—A. R. Whitney, of Franklin Grove, Lee County, Ill. The second premium was awarded to friend Whitney, by the State Agricultural Society, for having the second best conducted nursery. He has 360 acres. He never fails to raise a fine crop of apples, even when all others fail about him. The secret of his success is in the fact that he plants out large orchards and has the trees doubly as thick as farmers are in the habit of planting them. His trees are not more than from 16 to 20 feet apart, and consequently they protect one another and a crop of fruit is a certainty with him. He also protects his orchards by belts of trees on the Northern and Western sides.

History of the Melia Azederach.—A gentleman of Mobile states that "the China tree was introduced into this country before the revolutionary war, by a mercantile firm of Philadelphia and Eatonton, North Carolina, which traded with China. The first tree was planted in the former city, but, under an apprehension that it would not live in so northern a climate, it was removed to Eatonton, where it grew apace, and was greatly admired. After it commenced blooming, the people came as many as twenty and thirty miles to see it. From this single tree, it was propagated through the country, and now, in most of our cities, it is one of the commonest of our shade trees. The first tree was still vigorous twenty years ago." We hear of two or three sub-varieties of the China tree in Alabama and Texas—one with variegated leaves. Can any of our readers send us descriptions and seeds of these novelties?—*South. Cultivator.*

A Good Recipe for Vinegar.—Take forty gallons rain water, one gallon molasses, and four pounds acetic acid. It will be fit for use in a few days. Acetic acid costs twenty-five cents per pound. This is the recipe by which most of the cider vinegar is made, which is sold in the country stores.—*Scientific Artizan.*

Reason for Large Turnip Crops.—An Exchange says:—A distinguished English statesman has said that England could better afford to lose its navy than its turnip crop. Therefore plant largely.

New Use for Taxodium sempervirens.—A gentleman now in Humboldt intends to go into the business of grinding and preparing redwood bark for mattresses. The editor of the *Times*, at that place, has some specimens of his preparation, and sees no reason why it should not be as good as pulu or hair. The gentleman thinks, also, that the inside of the bark will make good gunny bags.—*California Farmer.*

Herbemont Grape—Mr. Husmann in the *Horticulturist*, says this variety makes a good wine grape in the south.

Artificial Light on Vegetation—Lamp light has been found to deepen the green color of leaves.

An Awful Place—Hon. M. L. Dunlap says of Manitowoc:—"But little attention is paid to gardening. We did not see a single hot-bed in the city, and heard of but one outside. Rhubarb pies and cowslip greens were the early rarities—one coming from the south and the other from the marsh. Radishes and lettuce are not yet in order, but there is no reason for thus being behind. A few hot-beds and pine boxes on which a pane of glass could be placed, would bring these things forward in good time.

"When true hearts are withered,
And fond ones have flown,"

and we have suffered every other ill that affects the human race, then—commend us to Manitowoc.

Lectures on Botany—Dr. G. Cooper, Naturalist to Gov. Steven's expedition, has been giving a course of Lectures on Botany to crowded audiences in New York.

Graperies in Buffalo.—The *Courier* says, the finest in that place belong to the Hon. Mr. Spaulding. The Black Hamburgh it says, average two pounds per bunch.

New Magnolia.—In the *Southern Cultivator*, Mr. Berkmans writes of M. grandiflora variety *gloriosa*, raised in France, and blooming with him; being a valuable improvement.

Live Arches.—A Mr. Brown, somewhere in Ohio, writes to the *American Agriculturist* that he has inarched the points of two maples together over his gate, and that the effect is pretty.

Cutting off the Leaves of Strawberries.—Mr. O'Leary, in the *American Farmer*, says he cuts off the leaves in the first week of July. The *American Farmer* says Mr. O'L. is well known as a successful grower.

New Wax Plant—*Rhus Succedaneum.*—At a meeting of apothecaries in Boston, a specimen from Japan was exhibited. The wax made from it is the purest, whitest, and most beautiful article of that kind. It has been imported into London extensively already, about 700 tons, at a cost of 15 cents a pound.

Foreign Intelligence.

[Translated for the Gardener's Monthly.]

VEGETATION IN GREECE.

No. 2.

BY DR. LANDERER.

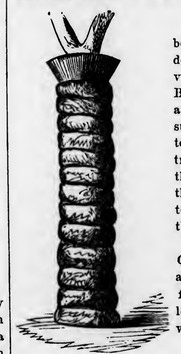
Atracylis gummifera is a beautiful thistle, but a few inches above the ground, and grows round Athens, in the wood near Kephissia. From its perigon issues a substance similar to traganth, which the children gather and sell, and which the people, especially the women, chew like mastick. Some say that the roots are poisonous; they have been sent to Liebig, who will pronounce on them. Forget that this plant is a thistle, and you will declare its flower a beauty. Small, exceedingly fine white blossoms, with roseate rims, as smooth as a velvet brush, and keep for weeks and months together when cut and placed in a little sand.

Manuring was unknown to our Greek peasants till within a recent date. They used to burn the thistles and vegetation off such fields as had lain fallow, one, two, or any number of years. The heat worked on the silicates of clay in the soil brought alkalines into it, which, in their turn acted on the humus, and made the ground fertile for future crops. Of late, however, the farmer collects the manure of his sheep, goats and cattle, having got to know its magic effect on the Olive trees. The knowledge of fertilizers is, however, generally speaking, a sealed one; fertilizers are wasted in many shapes. The millions and millions of Olives which are thrown away after having yielded their oil, would alone be of inestimable value, if properly treated as manure.

The Chestnuts, *Castanea vesca*, of the Island of Creta are prized throughout Greece, for whereas all over Greece the Chestnuts abound, but bear a lean, small fruit of bitter taste. Creta furnishes the finest, sweetest chestnuts, and supplies all Greece and Asia Minor with them by the cargo. They are eaten raw, roasted, and boiled with meat. A chestnut wood on Creta is quite a property, and according to its extent, its happy owner is looked up to as more or less rich. As in Greece an olive plantation is given as dowry to the girls, so chestnut woods are on Creta. A good chestnut tree is worth about sixty dollars. The crop is gathered in October, and with as much glee and festivity as elsewhere the vintage. Gathered fresh, they taste acid and unpleasant, but the Candiotes throw them immediately into pits, and after a few days' stay in them, they have 'worked,' and are the cynosure of Grecian gourmands. Preserved in wine they are a savory dish.

Anchursa tinctoria was one of the most important plants for the ladies of antiquity. It gave them the *rouge* for their aged or paled cheeks. The Hetairai especially used it in their trade, as Hetairai do now-a-days as well. With it our doubly antique ladies' dyed cheeks, eyebrows and finger nails. Another fact, which may prove worth a fortune if it gets in sight of one of our industrial barbers, is that when prepared as a powder, called in Egypt, Alkanna, it will dye grey hair a fine brown red; a favorite color, if not exactly with us, still with the Orientals. Mrs. Oriental powders herself with it, and, her head tied up, goes into the Turkish vapor bath. The perspiration acts on the powder, result—a beautiful browned crop of hair.

PROTECTING TRANSPLANTED TREES.



In one of our back numbers, one of our correspondents described the removal of large trees on the Bois de Boulogne, in Paris, and attributed much of the success there met with to the bandaging up of the trunk with hay bands, and the insertion of a funnel on the top, into which the water is daily poured, to keep the hay ropes moist.

In the last number of the *Cottage Gardener*, we find the accompanying sketch, in a foreign correspondent's letter, which clearly conveys the idea.

In the same letter, is a design for a Garden Chair, of very simple construction, which may be usefully imitated here, where cheapness and utility are the main ideas.

Abies monstrosa—A grotesque form of Norway Spruce is called Picea Hagemanniana in Germany.

The Mexican Botanic Garden, says the *Botanische Zeitung*, established originally by one of the Spanish sovereigns, is now in a deplorable condition.

The Ghishurst Compound for destroying insects. A patent composition—is highly spoken of by Mr. Rivers in the *Cottage Gardener.*

Foreign Correspondence.

From our English Correspondent.

Sheffield, September 15th, 1859.

Three new plants have been introduced here, which, if they have not already found their way into your country, should speedily be introduced, for they must become general favorites. The first, *Cyanophyllum magnificum*, is a strong, robust grower, soon attaining to a large specimen, is easily propagated, and requires a good supply of moist heat and shade, with plenty of pot room. It is a Melastomacea. The midrib is beautifuly white and ivory looking, branching off into two other divisions from the bottom, and meeting at the apex of the leaf, forming a charming relief to the color of the leaf itself, which is of the most velvety green, approaching to olive color, and presenting the richest shading, and the most magnificent appearance of any leaf hitherto introduced, or at present in cultivation. This season wherever it has been exhibited, it has been greatly admired.

Caladium Chantonii is also a charming new plant, of easy culture, growing very rapidly, each leaf improving, not only in size, but also in coloring. The leaf, which grows as large as the old *Caladium discolor* is much like it in size and shape.

Caladium Argyrites—This leaf is very distinct from the former, both in shape and its marking, and a plant which will be much in request, for the extraordinary contrast produced by the high coloring of its variegation.

Out of doors the *Triloma Uvaria* is the king of all, at this season we have now while I write, forty-two spikes on one plant, averaging four feet six inches long, to five feet six; and of the most brilliant orange and red. On one bed we saw this plant as a centre plant, with several spikes of bloom, encircled with a band of "Lobelia grandiflora," surrounded with a border of that most profuse blooming Calceolaria, the *C. aurea florabunda.* This assemblage was relieved by a green margin of grass, and backed by some fine *Portugal Laurels*, which, as a back ground, is very desirable and durable.

One other bed was filled with the blue "Lobelia speciosa," the centre plant, a specimen of "Dracena terminalis;" the effect was very charming. Another bed contained Scarlet Geraniums with *Humea elegans* as a centre. This, (like the Dracena,) was grown in-doors, and merely planted out for effect.

Tom Thumb Nasturtium has given pretty general satisfaction. Delphiniums and Phloxes, then the Nasturtiums, edged with a border of Verbenas of mixed colors, as a shrubbery, and Riband border is very gay for a long time.

Scarlet Lobelia, edged round with the blue, is very pretty; also the blue, edged round with the little variegated flowers Verbena, 'Imperatrice Eugenea,' and made a neat little bed; one design consisting of a white marble vase filled with scarlet geraniums, in the centre of which was a small fountain, (used occasionally,) is pretty.

Variegated leaved plants are becoming very fashionable here as bedders. [Very few stand our hot suns. The variegations burn out.—Ed.]

"Farfugium Grande" makes a good centre plant, and when belted round with some of the scarlets, it looks very well. I saw a scarlet Geranium which is an improvement on Tom Thumb, called Souvenir. Beaton's White Nosegay, is a novelty. Amongst the variegated Geraniums there are some good new things as well as old.

Alma—well variegated and a fine scarlet. *Beauty*—the best green, and the purest white margin. *Bijou*—the habit is good.

We observed both at Chatsworth and other places, the banks and terraces filled with rows of scarlet geraniums and yellow Calceolarias. "Chrysanthemum Burridgeanum" is a failure. Delphinium, Ageratum Mexicanum, Salvia patens, and Lobelia speciosa for a margin, makes a good bed. Fine shaded blue Antirhinums, arranged in rings or circles, having a strong growing yellow variety for a centre plant, bordered round with a deep belt of the fine crimson variety, edged round with variegated Balm, and looks very neat and is durable; the yellow, red and white selfs can be made good use of in skilful hands.

I must not forget to say a few words before closing this paper, on Hollyhocks, which are considerably cultivated—there is hardly any first-class garden without a plantation of them, and most certainly some of the kinds we saw were, in point of color, size, and substance, as near perfection as it is possible to imagine. In another paper, if such information would be of any service I should be happy to send a list of the best twenty out. W. P.

From our French Correspondent.

Anxious to increase the attractions of our paper in a measure commensurate with its increasing popularity; we have engaged the services of a distinguished French Horticulturist in Paris, to furnish us monthly notes of anything of interest that may occur there. From the known proficiency of the French in the many little details of practical gardening, we anticipate an interesting series of matter for our readers. From a private letter of our correspondent's we make the following extracts:—

Paris, September 1st, 1859.

"The current year has not been a fertile one for Paris in the way of horticultural novelties. The exhibition of the Imperial and Central Horticultural Society showed plants of high culture, but hardly a novelty.

All over Europe Begonias take the lead at present. In 1857, Begonia rex first appeared in France. Subsequently, the extraordinary facility of propagating it was found out, and ever since, the large Paris establishments have strived to produce hybrids and often with wonderful success.

The famous establishment of Thibaut & Keteleer has brought out B. Imperator, a cross between B. rex and splendida, of gigantic habit, leaves larger than rex, and having, in addition to the silver circle of the latter, another one of silver spots. A truly magnificent plant.

The same parents produced another variety which looks more like the B. splendida. Not yet named.

B. Leopoldii is a new kind brought out in Belgium, also very brilliant, and a hybrid of B. Griffithii and Splendida.

The same establishment has several other varieties not yet named, and not yet ready for sale.

To M. Linden of Brussels we owe the finest East Indian Begonias, such as Victoria, Argentea, and Aucabilis.

Messrs. T. and K. are also famous for their Orchids. We have lately seen them, but found but few in bloom. We noticed a very large specimen of Vonda tricolor, and a new Cympidium, C. fairieanum. The Vanilla, which embellishes the Orchid house has now some 500 fruit ripening.

Mr. Rongier, Chauviere, is celebrated for his green and hot-houses. We will enumerate from his new and rare plants, a truly fine plant—Hemonstophyllum cyrtanthiflorum, a hybrid of Van Houtte's from H. nobile and miniatum, uniting the fine points of either, and at the same time surpassing them. This Amaryllidea promises also to ripen its fruit, and we shall see whether that will perfect to germinate, an interesting fact, about which we shall again report to you. We further notice Cyanophyllum magnificum. This admirable Melastomacea, native of Mexico, has not yet flowered in Europe, but the splendid color of its leaves has, nevertheless, made it a favorite with amateurs of leaf plants. Its introduction in Europe we owe also to Mr. Linden. [See cut in our last.]

Another fine novelty of this year is Pimelea elegans of New South Wales.

In the way of open border plants, we mention as new, a pretty Asclepias, which has been recently illustrated in the *Revue Horticole.* Its attractions consist in a very pleasing foliage, its hardiness, (*la rusticite de son temperament,*) and abundant fruiting and consequently of easy propagation.

His Asclepias fimbriata Chamisie, at home in the Brazils, has to be kept in winter in the orangery, and stands in the open air during summer. The nerves of this plant have a white border round them like a great many other plants, as for instance, Begonias. This white border springs from air which is enclosed there between the epidermis and the under tissue of the leaf. The plant takes its name from its numerous filaments.

Horticultural Societies.

[Our space will not generally allow of our giving a full list of premiums awarded by our Societies, and we shall ususnally confine ourselves to giving the names of those who obtain the First and Largest Premiums.]

PENNSYLVANIA HORTICULTURAL SOCIETY.

SEPTEMBER 22 and 23.

One great feature of the exhibition was the magnificent collection of plants with variegated and ornamental foliage, from Robt. Buist's. Amonst the most ornamental and novel we may mention, Begonia rex, B. ricinifolia maculata, B. Mad. Wagner, B. argentea, &c. Croton discolor, the under part of the leaves a bright crimson; Citrus variegata, Deringea Amherstia, Maranta Warcewiczii M. regalis, Bilbergia rosea, B. argentea zonata, Boehmeria argentea, Acorus variegata, Beaumontia Baumgartii, Cypripedium venustum, Gesneria excelsa, G. zebrina superba, G. cinnabarina, Echites autans, and many others that we have not space to particularize. Plants of this kind are always so attractive, that it is no wonder they are becoming popular.

The weather was singularly unpropitious, and rendered the attendance of visitors nearly an impossibility, besides preventing very many matters of interest from being exhibited, on which the society counted. Annexed we give the Official Report:

The Committee on Plants and Flowers made the following awards:—For a collection of variegated plants—for the best to J Eadie, gardener to Dr James Rush. Collection of ferns—best to J Pollock, gardener to James Dundas, Esq. 10 plants—to J Pollock. 6 plants—to J Eadie. Specimen plants—to John Pollock. A special premium to Robert Buist, for the finest collection of variegated plants ever shown. A special premium to John Gehring, for a fine seedling monthly carnation. New plants—a premium to John Pollock for Philadendron pertusum, orchids, and a collection of evergreens. John Gerney for a collection of pampas grass in bloom. Dahlias—to H A Dreer. Roses—to R Buist. Table designs—to J A. Gehring. Baskets—to John Gray. Bouquets—to J J Habermehl.

The Committee on Grapes and Stone Fruits awarded the following: Grapes, foreign varieties—six bunches to John Landers, gardener to S T Altemus, Esq. Native grape—Isabella to Albanus L Felten; Catawba, to Peter Raabe; Diana, to same; Powell, to T Hilliard; Clara, to Peter Raabe. Peaches—to J B Baxter. And they award a special premium to T T Firth for a very fine display of grapes of numerous varieties, and attention is particularly called to the Catawissa grape, now deposited for the first time, by our worthy member, Charles F Hagner, which your committee think will prove to be a valuable acquisition to our list of natives. A seedling peach is also presented, of very delicious flavor. Inasmuch as the opinion is not altogether settled in regard to the Clara grape, so far as its foreign character or native claim is concerned, it is deemed best to leave it to the society, through the appropriate committee, for future decision.

The Committee on Apples, Pears, &c., reported the following awards: Pears, native—twelve varieties, to J B Baxter; six varieties, to Ellwanger & Barry. Foreign pears—twelve varieties, to same; six varieties, to No. 186, R Belleger, gardener to L Montgomery Bond. Apples—twelve varieties, to John Perkins; six varieties, to same. Figs—twelve specimens, to S H Simpson, gardener to Alexander Brown, Esq. Quinces—half peck, to C O'Brien, gardener to General Robert Patterson. They also recommend a special premium to Mrs Leggett, for fine Reigner pears; to John Brooks, gardener to C F Abbott, Esq, for fine Seckel pears; and also M B Richardson and J & M W Dick, for dishes of fine Cranberries. They also recommend to the favorable notice of the society a very fine collection of Pears, from Ellwanger & Barry, of Rochester, N Y; and one from Robert Buist; also, a dish of seedling pears named "Bartram," from Charles Harmer, which are of a fine large size, and very good quality. Also, a collection of Apples, Dennis Sweeting, Sterner, and Summer Wine Sap, showy varieties, but of second rate quality, from Josiah G Youngken, of Richlandtown, Bucks county, Pa.

The Committee on Vegetables report the following awards: Potatoes—one bushel, to A Felten, gardener to Henry Duhring, Esq. for Mercers. Sweet Potatoes—to A Felten, for White and Red. Celery—to James Jones, gardener to Girard College; a special premium to M Hegarty for six plants white celery. Tomatoes, Lima Beans, Dwarf Beans, Okra, and Peas—to A Felten. Squashes and Pumpkins—to A Felten. Cabbage—to L Fitzpatrick, gardener to J E Mitchell. Egg plants—to John Brooks, gardener to C F Abbott. Beets, Carrots, Parsnips, Salsafy, and Turnips—to J Jones. Citronmelons—to A Felten. Watermelons—to same. For the Apple-pie melon, a new fruit, the size of a large watermelon, and which, when cooked makes a sauce or pie resembling very greatly that of the finest green apple—it is easily cultivated, keeps all winter, and will supply admirably the place of the apple for cooking—particularly important from the continual failure of the apple crop; the committee award a special premium to Henry Hay.

Peppers and martinos—a special premium to L Fitzpatrick, gardener to J. E. Mitchell. Cabbage—a premium to J J Habermehl. The committee also recommended a special premium to A Felten, gardener to Henry Duhring, for the very large and fine collection of vegetables that has added much to the interest of the exhibition.

NEW YORK HORTICULTURAL SOCIETY.

The Fall Exhibition of the New York Horticultural Society took place in the spacious halls of the Third Avenue Railroad Company, 66th Street, on the 21st, 22d, 23d and 24th of September, and notwithstanding the very wet and stormy weather experienced, the display of Plants, Cut Flowers, Fruits and Vegetables was all that could be desired. Of Plants, the best display was contributed by Mr. Isaac Buchanan, of 9 west 17th Street, whose collection comprized a large number of new and beautiful plants. In a collection of Caladiums, by far the finest was C. Chantini (which was awarded a special premium by the Judges,) Verschaffeltii, Metallicum, &c. Begonias Rex, Madame Wagner. Griffithii, Splendens, Argentea, and a number of others of less beauty.

In the same collection was Dioscorea Zebrina, and discolor. Peretta Borbonica, Boehmeria argentea, Cissus discolor, Dieffenbachia picta. Erica blanda imbricata and Mammosa. The rare Nutmeg, (Myristica moschata Clove,) (Caryophylla aromatica,) Murraya exotica, &c., &c. He also exhibited the beautiful Odontoglossum grande, and Bictoniense, fourteen varieties of Ferns, and fifteen of Lycopodiums. Also a beautiful specimen in a tub of the Gynerum argentum, or Pampas grass of South America. His seedling Petunias also attracted much attention, being great improvements on the double and single kinds now in cultivation.

There was also a nice collection shown by William J. Davidson, gardener to R. L. Stuart, Esq., comprising Begonias Rex, Griffithii Saundersii, Zanthina, Reichenbernii, and a new yellow variety of Zanthina, with beautifully marked leaves, Cereus senelis, Mammillaria elephantipes, the curious leaved Hakea Victoria, Farfugium grande, Hedysarum gyrans, Erica Melanthera, with some Ferns and Lycopods, &c.

Dr. Knight exhibited a nice collection of Ferns, Lycopodiums, Euphorbias, &c., with good plants of Miltonia Clowesii in bloom.

The show of Cut flowers was meagre, owing to the storm, but the Dahlias exhibited by Mr. Andrew Richardson, West Farms, well sustained his reputation as a Dahlia grower.

The Floral design by Mr. William Fitzpatrick, New York, was a model of elegance and beauty, and that by Charles Ross, Gardener to H. A. Heiser, Esq., from its size and beauty, added much to the appearance of the room.

Mr. W. H. Schenck exhibited very beautiful Monochromatic drawings of fruits of extraordinary excellence.

The collections of fruit were very large and fine. The first premium for grapes was again carried off by Mrs. F. B. Durfee of Fall River, Mass., with Black Hamburg, Wilmotts, No. 16, Zinfindale, St. Peter's, White Frontignan and Canon Hall Muscat, well set and fine.

Mr. Charles Downing, of Newburg, exhibited very superior Rebecca grapes, as did also some other exhibitors.

Of Pears and Apples there was a very extensive display, especially from Ellwanger & Barry of Rochester, who filled three long tables with their superb collection.

Hooker & Co., of Rochester, also exhibited over 100 varieties. A. Saul, of Newburg, 80 varieties. L. Ferris, Throgg's Neck, 55 varieties. Mr. Sprunt, gardener to John de Wolf, Esq., Throgg's Neck, 32 varieties, and Messrs. Field, Carpenter, Buchanan, Parker of West Rupert, Vt., &c., also showed fine fruit; one striped Duchess d' Angouleme in Mr. Buchanan's collection weighing 18½ ounces.

Mr. Timothy Ryan, gardener to C. H. Lilienthal, Esq., exhibited two very fine plants in fruit, of the smooth leaved Cayenne Pine Apple.

In the Vegetable Department, the first object that attracted attention was the mammoth California squashes shown by Robert Alexander, gardener to James Gordon Bennett, Esq., Fort Washington, one of them over 175 pounds weight. His collection of vegetables was also very fine.

From Mr. Wm. S. Carpenter, of Harrison, Westchester county, a new variety of White Egg Plant, from China, very prolific and much earlier and more delicate in flavor than the purple variety. A new purple Tomato, very prolific and solid—will keep all winter like Apples . A new yellow Tomato from Cuba, weighing from 1½ to 2 pounds, solid and fine for table. The Huntingdon Musk Melon of delicious flavor, of which, fruit has been raised 20 inches long, weighing twenty-five pounds. By the same gentleman, sixty varieties of Potatoes, amongst them a new French variety, "The Desesire," and an English one, "Queen Victoria;" both very fine. The Mountain White: many of them weighing 2 pounds. The Davis' Seedling: a most prolific variety, said to produce 400 bushels to the acre and a fine table potato, &c. He also exhibits over twenty varieties of Squashes and Pumpkins, most of them new varieties, raised from seeds from Chili, the Sandwich Island, Cuba, Leghorn, &c.

Messrs. Ruth, Ryan, Beekman, &c., also contributed fine collections—Cabbages weighing 28, and Beets, 11 pounds.

This Exhibition has been held in connexion with the Agricultural Fair of the American Institute, and has been altogether the most successful, especially in fruits and vegetables ever held by the New York Horticultural Society. Let us hope the elements may be more propitious in future, as their receipts must necessarily be much diminished by the continued wet weather during their exhibition. The following is a list of the *first* premiums awarded.

VEGETABLES.

Best of vegetables, to Samuel Ruth, 58th Street, East River; Collection varieties of potatoes, to W. S. Carpenter, Harrison, West Chester county; 6 blood beets, to Robert Alexander, gardener to James Gordon Bennett; 12 carrots, to John C. Thompson, Staten Island; 12 white onions, to Robert Alexander, gardener to James Gordon Bennett; 12 red onions, to Robert Alexander, gardener to James Gordon Bennett; 2 egg plants, to Dennis Murphy, gardener to S. A. Stevens, Hoboken; half peck of Tomatoes, to John C. Thompson, Staten Island; 3 heads of cabbage, to John W. Ketchum, Randall's Island; 12 ears of table corn, to John C. Thompson, Staten Island.

Special Premiums—Large California Pumpkins, to Robert Alexander, gardener to James Gordon Bennett; varieties potatoes, to W. S. Carpenter; varieties squashes and pumpkins, to W. S. Carpenter.

PLANTS IN POTS.

Collection of miscellaneous plants, of house culture, to Isaac Buchanan; single specimen in bloom, to W. J. Davidson; collection of ferns and lycopodiums, to Isaac Buchanan; single specimen of orchids, to Isaac Buchanan.

CUT FLOWERS.

Best show of roses, to Charles Moore; show of Dahlias, thirty varieties, to Charles S. Pell; 12 named varieties, to Andrew Richardson, Fordham; varieties of verbenas, to Isaac Buchanan; miscellaneous cut flowers, to Isaac Buchanan; floral design, to William Fitzpatrick.

BASKETS AND BOUQUETS.

Basket of flowers, to William Roswell; table bouquet, to John M. Hauser; pair of hand bouquets, to Wm. C. Wilson.

FRUIT.

Six named varieties of foreign grapes, one bunch of each, to Mrs. F. B. Durfee; 2 bunches black Hamburg grapes, to James Cowan, gardener to Wm. E. Burton; 6 bunches of native grapes, to Wm. Brockebank, Hudson, N. Y.; collection of fifty named varieties of pears, to Ellwanger & Barry, Rochester, N. Y.; 12 named varieties, six of each, to Isaac Buchanan; collection of twenty varieties of apples, six specimens of each, to Ellwanger & Barry; 12 named varieties, five of each, to Wm. S. Carpenter; 6 named varieties to Wm. S. Carpenter; collection of named varieties of plums, six of each, to Ellwanger & Barry; dish of plums, one variety, ten specimens, to Ellwanger & Barry; dish of figs, to John Jameson, gardener to William Wright; 2 watermelons to Wm. S. Carpenter; 2 muskmelons, to Wm. S. Carpenter.

Special Premiums.—Isaac Buchanan, for caladium cantine; Isaac Buchanan, for gynerium argentium; Patrick Kennedy, gardener to E. A. Stevens, for pair of coxcombs; Henry McEnroe, gardener to Alonzo Childs, for six varieties of foreign grapes; Henry McEnroe, gardener to Alonzo Childs, for two bunches black Hamburg grapes; J. Ryan, gardener to C. H. Lillienthal, for six varieties foreign grapes; Charles Downing, for six bunches Delaware grapes; J. C. Dennisson, gardener to D. Grant, for Delaware grapes; Rufus Skell, for six bunches Delaware grapes; Ellwanger & Barry, for splendid collection of pears. Judges of Plants—John Cadues, George Saul, J. W. Wood. Judges of Vegetables—Wm. Charlton, John C. Thompson, Peter Henderson. Judges of Fruits—A. S. Fuller, Charles Downing, Thomas Hogg, James Chambers.

Special Premiums—Timothy Ryan, gardener to C. H. Lilienthall, Esq., for two smooth-leaved Cayenne pine apples :Thomas Sprunt, gardener to J. D. Wolf, Esq., for collection of pears; William L. Ferris, Throgg's Neck, do; Andrew Saul, Newburg, do; Joseph Parker, West Rupert, Vt., collection of apples; Prof. Rodman, Fort Washington, for Dahlias; Isaac Buchanan, 9 west 17th Street, for Seedling Petunias.

BROOKLYN HORTICULTURAL SOCIETY.

The Brooklyn Horticultural Society gave their Fall Exhibition at the Athaneum, on the 21st, 22d, and 23d of September. The weather proved very unpromitious, the rain falling in torrents, except the last evening of the exhibition, when it was computed that at least two thousand persons were present during the evening. But notwithstanding the lowering clouds were dispensing their fury without, a rich display of floral and horticultural beauty presided within; and the Society have the gratification of having never given an exhibition more worthy of the commendation of the votaries of horticulture. The specimens from Long Island, were much larger than usual, and attracted general attention. But the fruit from Rochester, of Ellwanger & Barry, and C. J. Ryan & Co., were fully equal to any displayed in this country. The Grapes of John Ellis from Westchester county, New York, J. S. Grant, Eastport, Connecticut, Mrs. F. B. Durfee, Fall River, Mass., J. Egan, Staten Island, also some fine grapes were on exhibition from Jas. McMillan, Throgg's Neck. There was a fine display of native grapes from William Brockebank, Hudson, New York. Some magnificent specimens were also on Exhibition from Van Brunt Wyckoff, Esq., and James J. S. T. Stranahan, Esq., both of the city of Brooklyn. The Rebecca grapes of Mr. Wyckoff, were the finest specimens we have ever seen; some of the bunches of the hot house grapes weighed over five pounds.

The collection of Pears from Jeremiah Briggs, Jamaica, Long Island, and from G. Marc, Astoria, were very fine, and the Duchess d' Angouleme, from the latter were the largest that are often witnessed. A fine display of Apples from Isaac Hicks, Westbury, Long Island, and Mr. Williams, Serringtown, L. I., afforded much gratification, and it was hard for many to resist the injunction—"touch not, handle not."

Amongst the plants displayed by C. Vanvourst, Esq., of Jersey City, was an orchid that had never before been exhibited in this country. L. Menand of Albany, exhibited a very fine table of plants, many of very rare and new varieties, and reminded every lover of the art that this veteran grower of fine plants has not failed to display the perfection of the science on this occasion.

A number of magnificent designs were on exhibition, displaying great artistic skill and taste, the work of W. J. Reddy, Henry Hudson, the gardener of Benjamin Wood, Esq., Little Neck, L. I., and Mrs. Henderson, Fulton Avenue, Brooklyn, and Jno Humphrey, East Brooklyn. Bouquets and baskets of flowers were in the utmost profusion, from which the taste of James Weir of Bay Ridge, L. I., could be quickly discovered. A Basket of Flowers attracted much attention, exhibited by Miss Jane E. Degrau, of Brooklyn, from which, visitors arrived at the agreeable conclusion that amid a city life, ladies have the opportunity of cultivating a taste for floriculture that partakes of the perfection of the art. Some very fine specimens of Dahlias were on exhibition from Andrew Richardson, Esq., Fordham, N. Y., A. G. Burgess, Evergreen Cemetery, and J. E. Rauch, Brooklyn, who had also on exhibition a rare and valuable collection of plants. a fine collection of vegetables were on exhibition from J. A. Perry, Bay Ridge; L. Lasin, gardener; J. Kitchen, Esq., Bay Ridge, and A. A. Dyraun, Jamaica, Long Island.

The following are the *first* premiums awarded;—

FRUIT.

Foreign Grapes.—6 bunches, to J. S. Grant, gardener to R. H. Winslow, Esq.; 3 bunches to John Ellis, Westchester county; 2 bunches white, to James McKay, gardener to L. S. Pond, Esq.; 2 bunches black to John Ellis.

Native Grapes.—6 bunches to Thomas Templeton; 3 bunches, to James Weir, Bayridge; best collection to William Brocksbank, Hudson.

Pears.—Best collection of Pears, to Ellwanger & Barry, Rochester; best 12 varieties, to W. E. French, Boston, Mass.; best 6 varieties, to G. Marc, Astoria.

Apples.—Best collection of Apples, to Ellwanger & Barry, Rochester; best 12 varieties, to J. Ryan & Co., Rochester; best 6 varieties, to J. Ryan & Co.

Miscellaneous.—Best 2 dishes of Peaches, to Asher Hance & Co.; best dish of Plums, to Ellwanger & Barry; best 12 Quinces, to Wm. Hugens; best dish of Figs, to W. J. Reddy, gardener to Mrs. Packer; best 2 Water Melons, to Asher Hance & Co.; best 2 Musk Melons, to J. Leonard, gardener to J. A. Perry.

Special Premiums.—A collection of Plums, to Ellwanger & Barry; Pine Apple in pot, to Lilienthall.

VEGETABLES.

Best display of Vegetables, to John Leonard, gardener to J. A. Perry, Esq.

PLANTS IN POTS.

Best miscellaneous display, to L. Menand, Albany; 4 specimen plants, to L. Menand; single specimen plant, to L. Menand, 4 Achimenes, to John Humphreys; 2 varieties of Orchids, to J. Fleming; single variety of Orchids, to J. Fleming; collection of Ferns, to L. Menand.

CUT FLOWERS.

Best display of Cut Flowers, to Thomas Nelson, Brooklyn; display of Cut Roses, to James Weir; 12 varieties of Cut Roses, to James Weir; display of Dahlias, to A. G. Burgess, East New York; 12 self-colored Dahlias, to Andrew Richardson, Fordham; 12 self-colored Dahlias, to Andrew Richardson, Fordham; 12 fancy Dahlias, to A. Richardson; 6 blooms Dahlias, to Andrew Richardson; best collection of Verbenas, to J. A. Rauch.

BOUQUETS, BASKETS, &c.

President's Premium for best Parlor Bouquets, to Jas. Weir; Table Bouquets, to James Weir, Jr.; pair of Hand Bouquets, promiscuously arranged, to James Weir, Jr.; pair Hand Bouquets, formally arranged, to Thomas Templeton; Basket of Flowers, to Miss Jane E. Degrau; Basket of Wild Flowers, to James Weir; second best basket of wild flowers, to Henry Tanner, Ornamental Design, to Henry Hudson; second best ornamental design, W. J. Reddy; best basket miscellaneous Fruit, to Thomas Templeton; second basket miscellaneous fruit, W. J. Reddy.

Special Premiums.—Collection of Seedling Petunias, to J. Buchanan, Astoria; collection of Gladiolus, to G. Marc, Astoria; collection of Seedling Dahlias, to Christopher Brill, Newark; collection of Seedling Dahlias, to A. Richard; collection of Conifers, to Jas. Weir; Floral design—a garden, to J. Humphreys; Floral design—a Temple, to Benjamin Wood.

Labeling.—Best and most correct labelling, to L. Menand; second best labeling, to J. A. Rauch.

MEETING OF GRAPE GROWERS, PHILADELPHIA, PA.

During the Pennsylvania State Fair, a number of Grape Growers from various parts of the State, held a meeting to talk over the the various subjects connected with grape growing; most of them bringing with them samples of the kinds growing in their neighborhood. There was no printed call for the meeting, yet notwithstanding it was very well attended.

The meeting organized by calling to the Chair, Dr. Eshlemann, the President of the Fruit Growers' Association of East Penna., T. M. Harvey, Assistant Secretary.

Mr. T. M. Harvey, of Jonnersville, stated the objects of the meeting, and Mr. S. Miller, of Lebanon, proposed that the gentlemen present should test individually, the grapes present, and vote on their respective merits, which was agreed to. The following were then so tested.—Many remaining still unacted on, owing to the lateness of the hour:

Louisa, good; Isabella, disputed as not being genuine, but voted good; Kingsessing, passed over as not being ripe enough to fairly test, Wright's Isabella, better than the Isabella produced before, and voted very good; Clara, voted best by a majority, the minority not thus voting through a hesitation to pronounce it a native kind. Mr. Miller remarked that it was perfectly hardy with him. Mr. Meehan observed that the foreign grapes were hardy whenever they did not mildew the summer previous. Mr. Garber of Columbia, expressed the same views; it was, he said, the ripeness of the wood which mildewed that rendered it liable to be winter killed. Most of the gentlemen thought the leaves indicated a native, and the fruit a foreign origin. The Raabe was voted very good, only slightly disseminating—it had very little pulp. Union Village, very large berries of a reddish black color, but voted merely good; The Cassiday, a small white, caused some disension; Mr. Harvey said it was quite hardy with him, Dr. Eshlemann said it was hardy at Lebanon. The skin was thick and the odor foxy—the majority voted it very good. Garrigues', only good. Herbemont, not voted on because not ripe; a gentleman present suggested the Ohio was only a form of this variety Elsinborough, very good. Baxter, not voted on; appeared to be a variety of the Chicken grape. Payne's Early, not considered sufficiently distinct from Isabella. Northern Muscadine, one vote for good, one for very good, the majority rejected it as unworthy of culture. Emily, specimens from Mr. Miller, pronounced spurious. Mr. Raabe exhibited some leaves as genuine, which were different from the kind voted spurious; Mr. J. E. Mitchell remarked that he had both the genuine and spurious Emilys, and that the genuine one was a good variety. The discussion then took a personal turn as to the origin of the error; but beyond the fact mentioned by one gentleman, that a vine obtained in Philadelphia four years ago, proved spurious—nothing of moment was elicited. Delaware Burgundy, the President said he had found not hardy, which Mr. Garber confirmed. Anna, not ripe enough to vote on. Hartford Prolific, rather foxy, voted good. Concord, very good; Mr. Mitchell remarked that he thought the Concord produced much better fruit now than he had tasted it on its first introduction at Boston. Webers, rather sour, but voted, on the suggeston of Mr. T. P. James, as promising well. Lenoir, good. Brinckle, a beautiful bunch, but was not voted on. Maxatawny, a white grape of good promise, with oval berries, no vote taken, not being quite ripe. Diana, voted best by only a majority of one, the minority voting only good. Delaware was classed best. Clinton, good. Long, a showy bunch, with small reddish berries, but no vote, not ripe. Mary Ann, slightly foxy and pulpy, voted worthy of further trial. Cloanthe, worthy of further trial. White Risling, no vote. Two grapes, one called Elk, another Escholl, (perhaps meant for Elkton,) from Maryland; a question having been raised as to its distinctiveness from the Catawba, it was voted by two only as distinct, the majority voting them identical; it was so recorded. Bland Seedling, majority voted very good; a gentleman inquired why so excellent a grape as the Bland was so little seen? several replied that it was very tender, and did not bear well. Penn, a handsome grape, resembling Alexander—rejected. Canby's August, good. Wilmington White, no vote; it is said to have been raised from a raisin, but is a true native.

At this point the meeting adjourned, with a vote of thanks to Mr. Paschall Morris for the use of the room in which the company assembled, and all highly gratified and instructed by the mutual interchange both of grapes and ideas.

FRUIT GROWERS' SOCIETY OF EASTERN PENNSYLVANIA.

A number of persons interested in the culture of Fruit, having met in the city of Lancaster on the 1st of 9th mo., (Sept.); and, although many of the counties were not represented, it was thought best to organize a society for the collection and dissemination of the observations, experiments and skill of our best Pomologists; the diseases and insects injurious to fruits and fruit trees, and their remedies; quality of soil and modes of culture; the best varieties to cultivate, &c., &c.

A Constitution and By-Laws were adopted providing for Committees on Foreign fruits, Native fruits, Synonyms, Insects and diseases of fruit and fruit trees—to report annually. A general fruit committee, composed of three members from each county represented, who are severally to report, monthly, to the general chairman; and he to make a condensed report to the annual meeting.

The following persons were elected to fill the various offices until the first annual meeting:

President.—J. K. Eshlemann.

Vice Presidents.—Edward Jessop, Jonathan C. Baldwin and J. Jay Libhart.

Recording Secretary.—Thos. M. Harvey.

Corresponding Secretary.—Charles Dingee.

Treasurer.—J. B. Garber.

After the election of officers, the evening and next forenoon were agreeably and profitably spent in discussing the modes, advantages and profits of trenching.

The diseases of the Grape, particularly one which seems to prevail in Eastern Penn-sylvania, appearing to be a fungi nearly allied to the grape disease of Europe.

Leaf blight, fire blight, and the cracking of the Pear; also the varieties that succeed well on the Quince, Curculio and black knots on Plum, &c., &c. During which many valuable suggestions were made—many important facts given, and much general information elicited.

The next meeting of the society will be held at Lancaster, on the first 4th day (Wednesday) of 2d month, (Feb.,) 1860, to which we cordially invite all those interested in fruit culture. There is a wide field of labor open before us, and we need the skill, experience and observations of all.

THOS. M. HARVEY, Sec'y.

THE SOCIETE ROYAL DE FLORE OF BRUXELLES.

The Society has had their Exhibition in the houses and gardens of the Zoological Institute, there, on the 17th of July last. It has, it is said, surpassed any former show which ever took place in Belgium—and this, adds the *Bonplandia*, is saying *something*.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. DECEMBER 1, 1859. VOL. I.---NO. 12.

CALENDAR.

12th Month, December, 1859, 31 Days.

Moon's Phases		Boston.		Philad'a.		Baltimore		Char'l't'n	
	d	h m		h m		h m		h m	
First Quarter.	2	9.06 mo		8.49 mor		8.43 mor		8.31 mo.	
Full.	9	10.29 ev.		10.12 ev'g		10.06 ev'g		9.54 ev.	
Last Quarter.	16	4.31 ev.		4.14 ev'g		4.08 ev'g		3.56 ev.	
New.	24	4.03 mo		0.46 mor		0.40 mor		0.28 mo.	
Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	2	7.11	4.27	7.03	4.34	7.03	4.37	6.45	4.55
	9	7.15	4.25	7.10	4.35	7.07	4.38	6.50	4.55
	16	7.24	4.29	7.15	4.39	7.12	4.39	6.55	4.57
	24	7.28	4.31	7.20	4.40	7.16	4.43	6.59	5.00

This Calendar will answer for the sun at any place in the same latitude.

Hints for November.

FLOWER GARDEN AND PLEASURE GROUND.

There is very little about which we can be bodily employed in this department at this season of the year, but it is the season, above all others, when alterations and improvements may be contemplated, and placed into shape for decisive action thereon, when the proper time shall arrive. It should be the object of every gardener to see his place somewhat altered—of course for the better—every year. We have a horror of finished places, and nature herself abhors them. She is never at rest. Continually progressing—every department of her kingdom is in a perpetual struggle for growth in goodliness and grace; even her closest reproductions are never exactly alike. A *finished* place has but one year of existence, and its owner but one season of enjoyment. Here you may see the same walks, the same clumps, and the same flower beds that were here years ago; the same geranium bed, the same verbena border, and the same bunch of petunias are where they always were; and the pomegranates, aloes, and crape myrtles keep guard on either side of the walks, or before the front doors, precisely as they did when the owner first settled down there. Such a place is not a reflection of nature, it is a picture gallery. It is not a living enjoyment, but only a pleasant memorial of what has once been successfully accomplished, and once luxuriously indulged in.

But, though we would never have our place to look exactly the same as it did in former years, we would recommend great caution in deciding what to undo and improve. To attempt too much is to have a place, which, in the common language "never looks nothing;" what is to be done, should be so exactly planned that the employees should not be hurried over it, to the neglect of standing objects of attention; and so neatly planned as to the time necessary to its perfect accomplishment, that when the spring first calls into existence all her legion of charms, your handiwork shall come fully prepared to be amongst the earliest to spring into the arena of the pristine pleasures of the year.

And then again, beware of going beyond your "appropriation" for such improvements; the commonest of all errors is, in this respect, to attempt too much. If you feel that you can spare two hundred dollars for improvements, make your calculation for the expenditure of only one. Little of the original amount will remain in the treasury by the finishing of the job.

It does not, in very many cases, require much time or money so to alter the appearance of a place as to make it bear a very different look to what it did in the past year. A new clump of cheap shrubbery may be planted, or an old one taken away to admit a new view that may have grown up since the original planting. A strip of grass may be laid down on what was once bare gravel. Here a small rockery may be put together; there a nest of roots thrown up, and ferns and trailing plants freely interspersed between them. In this corner you may place a stump, and entice ivy or some climbing vines to grow over it—a rustic arbor may be formed in some inviting nook, and in another shade-enticing spot, a rustic chair or bench be fixed. Even the outlines of the flower beds may be changed, or of the walks themselves, or even the contour of the surface in some instances, and all, in many instances, at the expense of a very small expenditure of time and money.

In all these undertakings, money, time, and vexation will be saved by consulting with men who make it their business to study such matters. Every one can, of course, design and lay out his own garden, just as well as he could make his own coat, or design the pattern of his own chandelier; but he will find in the end that his landscape gardener, his tailor, or his manufacturer of lamps, would have done the work much more satisfactorily for him. Many suffer from ill-fitting garments, and badly designed gardens, through employing botches and ignorant pretenders, but the man who has not tact enough to discriminate in this respect, deserves to suffer.

VINERIES AND ORCHARD HOUSES.

At this season of the year, one of the most usual subjects of attention with many parties is the preparation of a vine border.

It was once supposed that, as the vine is well known to be a gross feeder, the border at its formation could not well be too rich, and consequently, when such an arrangement was in progress, all the dead horses, dogs, and animals that could be found for twenty miles round, brought very high premiums. But the practice has fallen into disrepute; not because it does not possess some merits, but because, like many other good things, it has been overdone.

Very much of the success of your vine border will depend on the vines themselves: a statement which will appear paradoxical to many; but it is a fact, that so long as the plant remains healthy, and the roots push actively and vigorously, the soil of a grape border can scarcely be too rich, and it is only when, from whatever cause the vine becomes unhealthy, and the roots diseased, that a highly nutritious border adds to the injury and makes the matter worse. Hence, the danger of too rich a border in the hands of the inexperienced, and the value of caution on the part of all in making a new experiment.

Keeping in view, therefore, that the first essential of successful grape culture, is the production of an abundance of roots, and their healthy preservation afterwards. The first great principles of subsoiling and draining must be sedulously attended to. If the subsoil is retentive, a drain, at least three feet in depth should be made all around the proposed border, and should be led with a good fall into the nearest outlet. A good warm subsoil is very important in grape culture, and draining is one of the best ways of securing it, as when the rain can readily penetrate through into the subsoil, the warmth at the surface in the spring is carried rapidly down into the soil, and is very advantageous at that growing season. Too much attention can scarcely be given to this matter. The drains may in part be constructed of bones, which will serve the double purpose of affording nutriment, and warming the soil at the same time.

Where the soil lies naturally low, it is often judiciously the practice to elevate the border considerably above the surrounding surface, which effects much the same purpose as deep draining accomplishes so successfully.

As to soil, where choice can be had, we think there is nothing preferable to the surface of a pasture field, taken off, say two or three inches deep, and to have with every three loads of it, one load of stable manure, thoroughly decomposed—say two years old hot-bed manure incorporated with it. Any richer materials that may be at hand may be deposited at the outside of the borders. When the vines get older, and the roots strong and hungry, they will then find, and not despise, whatever delicious morsels may thus be in store for them.

As to the width of the borders, we have always thought sixteen feet ample, and in cases where space was an object, we should be satisfied with much less; as, where the roots can be healthily maintained, good food can always be supplied. Indeed, ideas are fast changing in this respect. We well remember the time when it was universal to throw away a pot vine after the fruit had been cut, but now, modern practice will produce good grapes several years in succession from vines in the same pots.

Where it can be effected, it is better to have the vine border run under the grapery as well as along on the front.

With regard to pruning the vine, it must not be forgotten, that what is done at this season, is with the object of making the plant push with greater vigor next season, looking forward also to the future shape and form that such pruning will cause the vine to assume.

Many prefer to have always a good succession of young canes, as bearing wood. The old wood is cut away every year entirely to a new cane which has been carefully trained up from the base during the summer, is now made to replace the old shoot; but this kind of pruning has to be attended to in the summer season more particularly, and need not be further referred to at this season, except to see that the cane is shortened down somewhat, according to its strength; usually being suffered to occupy about two-thirds of the rafter.

Those who prefer very large bunches, and who dislike to have their vineries crowded with "wood" during the summer, usually train up a single cane to the rafter, which is ever after retained permanently there; and the side shoots, which spring out yearly, and bear fruit, are annually shortened in to one eye at this season, and push again, and again bear the next.

There are many modifications of these two systems

Peppers and marthos—a special premium to L Fitzpatrick, gardener to J E. Mitchell. Cabbage—a premium to J J Habermehl. The committee also recommended a special premium to A Felten, gardener to Henry Duhring, for the very large and fine collection of vegetables that has added much to the interest of the exhibition.

NEW YORK HORTICULTURAL SOCIETY.

The Fall Exhibition of the New York Horticultural Society took place in the spacious halls of the Third Avenue Railroad Company, 66th Street, on the 21st, 22d, 23d and 24th of September, and notwithstanding the very wet and stormy weather experienced, the display of Plants, Cut Flowers, Fruits and Vegetables was all that could be desired. Of Plants, the best display was contributed by Mr. Isaac Buchanan, of 9 west 17th Street, whose collection comprized a large number of new and beautiful plants. In a collection of Caladiums, by far the finest was C. Chautini (which was awarded a special premium by the Judges.) Verschaffeltii, Metallicum, &c. Begonias Rex, Madame Wagner, Griffithii, Splendens, Argentea, and a number of others of less beauty.

In the same collection was Dioscorea Zebrina, and discolor. Pavonia Barbonica, Boehmeria argentea, Cissus discolor, Dieffenbachia picta. Erica blanda imbricata and Mammosa. The rare Nutmeg, (Myristica moschata Clove,) (Caryophyllu aromatica,) Murraya exotica, &c., &c. He also exhibited the beautiful Odontoglossum grande, and Bictoniense, fourteen varieties of Ferns, and fifteen of Lycopodiums. Also a beautiful specimen in a tub of the Gynerum argentum, or Pampas grass of South America. His scelling Petunias also attracted much attention, being great improvements on the double and single kinds now in cultivation.

There was also a nice collection shown by William J. Davidson, gardener to R. L. Stuart, Esq., comprising Begonias Rex, Griffithii Saundersii, Zanthina, Reichenhernii, and a new yellow variety of Zanthina, with beautifully marked leaves, Cereus senelis, Mammillaria elephantipes, the curious leaved Baken Victoria, Farfugium grande, Hedysarum gyrans, Erica Melanthera, with some Ferns and Lycopods, &c.

Dr. Knight exhibited a nice collection of Ferns, Lycopodiums, Euphorbias, &c., with good plants of Miltonia Cloweesii in bloom.

The show of Cut flowers was meagre, owing to the storm, but the Dahlias exhibited by Mr. Andrew Richardson, West Farms, well sustained his reputation as a Dahlia grower.

The Floral design by Mr. William Fitzpatrick, New York, was a model of elegance and beauty, and that by Charles Ross, Gardener to H. A. Heiser, Esq., from its size and beauty, added much to the appearance of the room.

Mr. W. H. Schenck exhibited very beautiful Monochromatic drawings of fruits of extraordinary excellence.

The collections of fruit were very large and fine. The first premium for grapes was again carried off by Mrs. F. B. Durfee of Fall River, Mass., with Black Hamburg, Wilmotts, No. 16, Zinfindale, St. Peter's, White Frontignan and Canon Hall Muscat, well set and fine.

Mr. Charles Downing, of Newburg, exhibited very superior Rebecca grapes, as did also some other exhibitors.

Of Pears and Apples there was a very extensive display, especially from Ellwanger & Barry of Rochester, who filled three long tables with their superb collection.

Hooker & Co., of Rochester, also exhibited over 100 varieties. A. Saul, of Newburg, 80 varieties. L. Ferris, Throgg's Neck, 55 varieties. Mr. Sprunt, gardener to John de Wolf, Esq., Throgg's Neck, 52 varieties, and Messrs. Field, Carpenter, Buchanan, Parker of West Rupert, Vt., &c., also showed fine fruit; one striped Duchess d' Angouleme in Mr. Buchanan's collection weighing 18½ ounces.

Mr. Timothy Ryan, gardener to C. H. Lillenthall, Esq., exhibited two very fine plants in fruit, of the smooth leaved Cayenne Pine Apple.

In the Vegetable Department, the first object that attracted attention was the mammoth California squashes shown by Robert Alexander, gardener to James Gordon Bennett, Esq., Fort Washington, one of them over 175 pounds weight. His collection of vegetables was also very fine.

From Mr. Wm. S. Carpenter, of Harrison, Westchester county, a new variety of White Egg Plant, from China, very prolific and much earlier and more delicate in flavor than the purple variety. A new purple Tomato, very prolific and solid—will keep all winter like Apples. A new yellow Tomato from Cuba, weighing from 1½ to 2 pounds, solid and fine for table. The Huntington Musk Melon of delicious flavor, of which, fruit has been raised 20 inches long, weighing twenty-five pounds. By the same gentleman, sixty varieties of Potatoes, amongst them a new French variety, "The Deseoire," and an English one, "Queen Victoria;" both very fine. The Mountain White: many of them weighing 2 pounds. The Davis' Seedling: a most prolific variety, said to produce 400 bushels to the acre and a fine table potato, &c. He also exhibits over twenty varieties of Squashes and Pumpkins, most of them new varieties, raised from seeds from Chili, the Sandwich Island, Cuba, Leghorn, &c.

Messrs. Rath, Ryan, Beekman, &c., also contributed fine collections—Cabbages weighing 28, and Beets, 11 pounds.

This Exhibition has been held in connexion with the Agricultural Fair of the American Institute, and has been altogether the most successful, especially in fruits and vegetables ever held by the New York Horticultural Society. Let us hope the elements may be more propitious in future, as their receipts must necessarily be much diminished by the continued wet weather during their exhibition. The following is a list of the *first* premiums awarded.

VEGETABLES.

Best of vegetables, to Samuel Rath, 88th Street, East River; Collection varieties of potatoes, to W. S. Carpenter, Harrison, West Chester county; 6 blood beets, to Robert Alexander, gardener to James Gordon Bennett; 12 carrots, to John C. Thompson, Staten Island; 12 white onions, to Robert Alexander, gardener to James Gordon Bennett; 12 red onions, to Robert Alexander, gardener to James Gordon Bennett; 2 egg plants, to Dennis Murphy, gardener to S. A. Stevens, Hoboken; half peck of Tomatoes, to John C. Thompson, Staten Island; 3 heads of cabbage, to John W. Ketchum, Randall's Island; 12 ears of table corn, to John C. Thompson, Staten Island.

Special Premiums—Large California Pumpkins, to Robert Alexander, gardener to James Gordon Bennett; varieties potatoes, to W. S. Carpenter; varieties squashes and pumpkins, to W. S. Carpenter.

PLANTS IN POTS.

Collection of miscellaneous plants, of house culture, to Isaac Buchanan; single specimen in bloom, to W. J. Davidson; collection of ferns and lycopodiums, to Isaac Buchanan; single specimen of orchids, to Isaac Buchanan.

CUT FLOWERS.

Best show of roses, to Charles More; show of Dahlias, thirty varieties, to Charles S. Pell; 12 named varieties, to Andrew Richardson, Fordham; varieties of verbenas, to Isaac Buchanan; miscellaneous cut flowers, to Isaac Buchanan; floral design, to William Fitzpatrick.

BASKETS AND BOUQUETS.

Basket of flowers, to William Roswell; table bouquet, to John M. Hauser; pair of hand bouquets, to Wm. C. Wilson.

FRUIT.

Six named varieties of foreign grapes, one bunch of each, to Mrs. F. B. Durfee; 2 bunches black Hamburg grapes, to James Cowan, gardener to Wm. E. Burton; 6 bunches of native grapes, to Wm. Brooksbank, Hudson, N. Y.; collection of fifty named varieties of pears, to Ellwanger & Barry, Rochester, N. Y.; 12 named varieties, six of each, to Isaac Buchanan; collection of twenty varieties of apples, six specimens of each, to Ellwanger & Barry; 12 named varieties, five of each, to Wm. S. Carpenter; 6 named varieties to Wm. S. Carpenter; collection of named varieties of plums, six of each, to Ellwanger & Barry; dish of plums, one variety, ten specimens, to Ellwanger & Barry; dish of figs, to John Jameson, gardener to William Wright; 2 watermelons to Wm. S. Carpenter; 2 muskmelons, to Wm. S. Carpenter.

Special Premiums.—Isaac Buchanan, for caladium cantine; Isaac Buchanan, for gynerium argentium; Patrick Kennedy, gardener to E. A. Stevens, for pair of coxcombs; Henry McEnroe, gardener to Alonzo Childs, for six varieties of foreign grapes: Henry McEnroe, gardener to Alonzo Childs, for two bunches black Hamburg grapes; J. Ryan, gardener to C. H. Lillienthal, for six varieties foreign grapes; Charles Downing, for six bunches Delaware grapes; J. C. Dennison, gardener to D. Grant, for Delaware grapes; Rufus Skell, for six bunches Delaware grapes; Ellwanger & Barry, for splendid collection of pears. Judges of Plants—John Cadues, George Saul, J. W. Wood. Judges of Vegetables—Wm. Charlton, John C. Thompson, Peter Henderson. Judges of Fruits—A. S. Fuller, Charles Downing, Thomas Hogg, James Chambers.

Special Premiums—Timothy Ryan, gardener to C. H. Lillenthall, Esq., for two smooth-leaved Cayenne pine apples :Thomas Sprunt, gardener to J. D. Wolf, Esq., for collection of pears; William L. Ferris, Throgg's Neck, do; Andrew Saul, Newburg, do; Joseph Parker, West Rupert, Vt., collection of apples; Prof. Roemar, Fort Washington, for Dahlias; Isaac Buchanan, 9 west 17th Street, for Seedling Petunias.

BROOKLYN HORTICULTURAL SOCIETY.

The Brooklyn Horticultural Society gave their Fall Exhibition at the Athaneum, on the 21st, 22d, and 23d of September. The weather proved very unpropitious, the rain falling in torrents, except the last evening of the exhibition, when it was computed that at least two thousand persons were present during the evening. But notwithstanding the lowering clouds were dispensing their fury without, a rich display of floral and horticultural beauty presided within; and the Society have the gratification of having never given an exhibition more worthy of the commendation of the votaries of horticulture. The specimens from Long Island, were much larger than usual, and attracted general attention. But the fruit from Rochester, of Ellwanger & Barry, and C. J. Ryan & Co., were fully equal to any displayed in this country. The Grapes of John Ellis from Westchester county, New York, J. S. Grant, Eastport, Connecticut, Mrs. F. B. Durfee, Fall River, Mass., J. Egan, Staten Island, also some fine grapes were on exhibition from Jas. McMillan, Thorgg's Neck. There was a fine display of native grapes from William Brocksbank, Hudson, New York. Some magnificent specimens were also on Exhibition from Van Brunt Wyckoff, Esq., and James J. S. T. Stranahan, Esq., both of the city of Brooklyn. The Rebecca grapes of Mr. Wyckoff, were the finest specimens we have ever seen; some of the bunches of the hot house grapes weighed over five pounds.

The collection of Pears from Jeremiah Briggs, Jamaica, Long Island, and from G. Marc, Astoria, were very fine, and the Duchess d' Angouleme, from the latter were the largest that are often witnessed. A fine display of Apples from Isaac Hicks, Westbury, Long Island, and Mr. Williams, Serringtown, L. I., afforded much gratification, and it was hard for many to resist the injunction—"touch not, handle not."

Amongst the plants displayed by C. Vanvourst, Esq., of Jersey City, was an orchid that had never before been exhibited in this country. L. Menand of Albany, exhibited a very fine table of plants, many of very rare and new varieties, and reminded every lover of the art that this veteran grower of fine plants has not failed to display the perfection of the science on this occasion.

A number of magnificent designs were on exhibition, displaying great artistic skill and taste, the work of W. J. Reddy, Henry Hudson, the gardener of Benjamin Wood, Esq., Little Neck, L. I., and Mrs. Henderson, Fulton Avenue, Brooklyn, and Jno. Humphrey, East Brooklyn. Bouquets and baskets of flowers were in the utmost profusion, from which the taste of James Weir of Bay Ridge, L. I., could be quickly discovered. A Basket of Flowers attracted much attention, exhibited by Miss Jane E. Degrau, of Brooklyn, from which, visitors arrived at the agreeable conclusion that amid a city life, ladies have the opportunity of cultivating a taste for floriculture that partakes of the perfection of the art. Some very fine specimens of Dahlias were on exhibition from Andrew Richardson, Esq., Fordham, N. Y., A. G. Burgess, Evergreen Cemetery, and J. E. Rauch, Brooklyn, who had also on exhibition a rare and valuable collection of plants. a fine collection of vegetables were on exhibition from J. A. Perry, Bay Ridge; L. Lasin, gardener; J. Kitchen, Esq., Bay Ridge, and A. A. Dyraun, Jamaica, Long Island.

The following are the *first* premiums awarded:—

FRUIT.

Foreign Grapes.—6 bunches, to J. S. Grant, gardener to R. H. Winslow, Esq.; 3 bunches to John Ellis, Westchester county; 2 bunches white, to James McKay, gardener to L. S. Pond, Esq.; 2 bunches black to John Ellis.

Native Grapes.—6 bunches to Thomas Templeton; 3 bunches, to James Weir, Bayridge; best collection to William Brocksbank, Hudson.

Pears.—Best collection of Pears, to Ellwanger & Barry, Rochester; best 12 varieties, to W. E. French, Boston, Mass.; best 6 varieties, to G. Marc, Astoria.

Apples.—Best collection of Apples, to Ellwanger & Barry, Rochester; best 12 varieties, to J. Ryan & Co., Rochester; best 6 varieties, to J. Ryan & Co.

Miscellaneous.—Best 2 dishes of Peaches, to Asher Hance & Co.; best dish of Plums, to Ellwanger & Barry; best 12 Quinces, to Wm. Hugens; best dish of Figs, to W. J. Reddy, gardener to Mrs. Packer; best 2 Water Melons, to Asher Hance & Co.; best 2 Musk Melons, to J. Leonard, gardener to J. A. Perry.

Special Premiums.—A collection of Plums, to Ellwanger & Barry; Pine Apple in pot, to Lillienthall.

VEGETABLES.

Best display of Vegetables, to John Leonard, gardener to J. A. Perry, Esq.

PLANTS IN POTS.

Best miscellaneous display, to L. Menand, Albany; 4 specimen plants, to L. Menand; single specimen plant, to L. Menand, 4 Achimenes, to John Humphreys; 2 varieties of Orchids, to J. Fleming; single variety of Orchids, to J. Fleming; collection of Ferns, to L. Menand.

CUT FLOWERS.

Best display of Cut Flowers, to Thomas Nelson, Brooklyn; display of Cut Roses, to James Weir; 12 varieties of Cut Roses, to James Weir; display of Dahlias, to A. G. Burgess, East New York; 12 self-colored Dahlias, to Andrew Richardson, Fordham; 12 self-colored Dahlias, to Andrew Richardson, Fordham; 12 fancy Dahlias, to A. Richardson; 6 blooms Dahlias, to Andrew Richardson; best collection of Verbenas, to J. A. Rauch.

BOUQUETS, BASKETS, &c.

President's Premium for best Parlor Bouquets, to Jas. Weir; Table Bouquets, to James Weir, Jr.; pair of Hand Bouquets, promiscuously arranged, to James Weir, Jr.; pair Hand Bouquets, formally arranged, to Thomas Templeton; Basket of Flowers, to Miss Jane E. Degrau; Basket of Wild Flowers, to James Weir; second best basket of wild flowers, to Henry Tanner, Ornamental Design, to Henry Hudson; second best ornamental design, W. J. Reddy; best basket miscellaneous Fruit, to Thomas Templeton; second basket miscellaneous fruit, W. J. Reddy.

Special Premiums—Collection of Seedling Petunias, to J. Buchanan, Astoria; collection of Gladiolus, to G. Marc, Astoria; collection of Seedling Dahlias, to Christopher Brill, Newark; collection of Seedling Dahlias, to A. Richard; collection of Conifers, to Jas. Weir; Floral design—a garden, to J. Humphreys; Floral design—a Temple, to Benjamin Wood.

Labeling.—Best and most correct labelling, to L. Menand; second best labeling, to J. A. Rauch.

MEETING OF GRAPE GROWERS, PHILADELPHIA, PA.

During the Pennsylvania State Fair, a number of Grape Growers from various parts of the State, held a meeting to talk over the the various subjects connected with grape growing; most of them bringing with them samples of the kinds growing in their neighborhood. There was no printed call for the meeting, yet notwithstanding it was very well attended.

The meeting organized by calling to the Chair, Dr. Eshlemann, the President of the Fruit Growers' Association of East Penna., T. M. Harvey, Assistant Secretary.

Mr. T. M. Harvey, of Jennersville, stated the objects of the meeting, and Mr. S. Miller, of Lebanon, proposed that the gentlemen present should test individually, the grapes present, and vote on their respective merits, which was agreed to. The following were then so tested.—Many remaining still unacted on, owing to the lateness of the hour:

Louisa, good; Isabella, disputed as not being genuine, but voted good; Kingsessing, passed over as not being ripe enough to fairly test, Wright's Isabella, better than the Isabella produced before, and voted very good; Clara, voted best by a majority, the minority not thus voting through a hesitation to pronounce it a native kind. Mr. Miller remarked that it was perfectly hardy with him. Mr. Meehan observed that the foreign grapes were hardy whenever they did not mildew the summer previous. Mr. Garber of Columbia, expressed the same views; it was, he said, the unripeness of the wood when mildewed that rendered it liable to be winter killed. Most of the gentlemen thought the leaves indicated a native, and the fruit a foreign origin. The Raabe was voted very good, only two dissenting votes. Fall Town, very little pulp. Union Village, very large berries of a reddish black color, but voted merely good; The Cassiday, a small white, caused some discussion; Mr. Harvey said it was quite hardy with him, Dr. Eshleman said it was hardy at Lebanon. The skin was thick and the odor foxy—the majority voted it very good. Garrigues', only good. Herbemont, not voted on because not ripe; a gentleman present suggested the Ohio was only a form of this variety Elsinborough, very good. Baxter, not voted on; appeared to be a variety of the Chicken grape. Payne's Early, not considered sufficiently distinct from Isabella. Northern Muscadine, one vote for good, one for very good, the majority rejected it as unworthy of culture. Emily, specimens from Mr. Miller, pronounced spurious. Mr. Raabe exhibited some leaves as genuine, which were different from the kind voted spurious; Mr. J. E. Mitchell remarked that he had both the genuine and spurious Emilys, and that the genuine one was a good variety. The discussion then took a personal turn as to the origin of the error: but beyond the fact mentioned by one gentleman, that a vine obtained in Philadelphia four years ago, proved spurious—nothing of moment was elicited. Delaware Burgundy, the President said he had found not hardy, which Mr. Garber confirmed. Anna, not ripe enough to vote on. Hartford Prolific, rather foxy, voted good. Concord, very good; Mr. Mitchell remarked that he thought the Concord produced much better fruit now than he had tasted it on its first introduction at Boston. Webers, rather sour, but voted, on the suggestion of Mr. T. P. James, as promising well. Lenoir, good. Brinckle, a beautiful bunch, but was not voted on. Maxetawny, a white grape of good promise, with oval berries, no vote taken, not being quite ripe. Diana, voted best by only a majority of one, the minority voting only good. Delaware was classed best. Clinton, good. Long, a showy bunch, with small reddish berries, but no vote, not ripe. Mary Ann, slightly foxy and pulpy, voted worthy of further trial. Cloanthe, worthy of further trial. White Rislling, no vote. Two grapes, one called Elk, another Escholl, (perhaps meant for Elkton,) from Maryland; a question having been raised as to its distinctiveness from the Catawba, it was voted by two only as distinct, the majority voting them identical; it was so recorded. Bland Seedling, majority voted very good; a gentleman inquired why so excellent a grape as the Bland was so little seen? several replied that it was very tender, and did not bear well. Penn, a handsome grape, resembling Alexander—rejected. Canby's August, good. Wilmington White, no vote; it is said to have been raised from a raisin, but is a true native.

At this point the meeting adjourned, with a vote of thanks to Mr. Paschall Morris for the use of the room in which the company assembled, and highly gratified and instructed by the mutual interchange both of grapes and ideas.

FRUIT GROWERS' SOCIETY OF EASTERN PENNSYLVANIA.

A number of persons interested in the culture of Fruit, having met in the city of Lancaster on the 1st of 9th mo., (Sept.); and, although many of the counties were not represented, it was thought best to organize a society for the collection and dissemination of the observations, experiments and skill of our best Pomologists; the diseases and insects injurious to fruits and fruit trees, and their remedies; quality of soil and modes of culture; the best varieties to cultivate, &c., &c.

A Constitution and By-Laws were adopted providing for Committees on Foreign fruits, Native fruits, Synonyms, Insects and diseases of fruit and fruit trees—to report annually. A general fruit committee, composed of three members from each county represented, who are severally to report, monthly, to the general chairman; and he to make a condensed report to the annual meeting.

The following persons were elected to fill the various offices until the first annual meeting:

President.—J. K. Eshleman.

Vice Presidents.—Edward Jessop, Jonathan C. Baldwin and J. Jay Libhart.

Recording Secretary.—Thos. M. Harvey.

Corresponding Secretary.—Charles Dingee.

Treasurer.—J. B. Garber.

After the election of officers, the evening and next forenoon were agreeably and profitably spent in discussing the modes, advantages and profits of trenching.

The diseases of the Grape, particularly one which seems to prevail in Eastern Pennsylvania, appearing to be a fungi nearly allied to the grape disease of Europe.

Leaf blight, fire blight, and the cracking of the Pear; also the varieties that succeed well on the Quince, Curculio and black knots on Plum, &c., &c. During which many valuable suggestions were made—many important facts given, and much general information elicited.

The next meeting of the society will be held at Lancaster, on the first 4th day (Wednesday) of 2d month, (Feb.,) 1860, to which we cordially invite all those interested in fruit culture. There is a wide field of labor open before us, and we need the skill, experience and observations of all.

THOS. M. HARVEY, Sec'y.

THE SOCIETE ROYAL DE FLORE OF BRUXELLES.

The Society has had their Exhibition in the houses and garden of the Zoological Institute, there, on the 17th of July last. It has, it is said, surpassed any former show which ever took place in Belgium—and this, adds the *Bonplandin*, is saying *something*.

The Gardener's Monthly.

Devoted to Horticulture, Arboriculture, Botany and Rural Affairs.

THOMAS MEEHAN, EDITOR. DECEMBER 1, 1859. VOL. I.—NO. 12.

CALENDAR.

12th Month, December, 1859, 31 Days.

Moon's Phases		Boston.		Philad'a.		Baltimore		Charl'n	
	d	h m		h m		h m		h m	
First Quarter.	2	9.06 mo		8.49 mor		8.43 mor		8.31 mo.	
Full.	9	10.20 ev.		10.12 ev'g		10.06 ev'g		9.54 ev.	
Last Quarter.	16	4.31 ev.		4.14 ev'g		4.08 ev'g		3.56 ev.	
New.	24	4.03 mo		0.46 mor		0.40 mor		0.28 mo.	
Sun.	d	rise	sets	rise	sets	rise	sets	rise	sets
	2	7.11	4.27	7.03	4.33	7.04	4.37	6.45	4.55
	9	7.18	4.28	7.10	4.35	7.07	4.38	6.50	4.55
	16	7.24	4.29	7.15	4.39	7.12	4.39	6.55	4.57
	24	7.28	4.31	7.20	4.40	7.16	4.43	6.59	5.00

This Calendar will answer for the sun at any place in the same latitude.

Hints for November.

FLOWER GARDEN AND PLEASURE GROUND.

There is very little about which we can be bodily employed in this department at this season of the year, but it is the season, above all others, when alterations and improvements may be contemplated, and placed into shape for decisive action thereon, when the proper time shall arrive. It should be the object of every gardener to see his place somewhat altered—of course for the better—every year. We have a horror of finished places, and nature herself abhors them. She is never at rest. Continually progressing—every department of her kingdom is in a perpetual struggle for growth in goodliness and grace; even her closest reproductions are never exactly alike. A *finished* place has but one year of existence, and its owner but one season of enjoyment. Here you may see the same walks, the same clumps, and the same flower beds that were here years ago; the same geranium bed, the same verbena border, and the same bunch of petunias are where they always were; and the pomegranates, aloes, and crape myrtles keep guard on either side of the walks, or before the front doors, precisely as they did when the owner first settled down there. Such a place is not a reflection of nature, it is a picture gallery. It is not a living enjoyment, but only a pleasant memorial of what has once been successfully accomplished, and once luxuriously indulged in.

But, though we would never have our place to look exactly the same as it did in former years, we would recommend great caution in deciding what to undo and improve. To attempt too much is to have a place, which, in the common language "never looks nothing;" what is to be done, should be so exactly planned that the employees should not be hurried over it, to the neglect of standing objects of attention; and so neatly planned as to the time necessary to its perfect accomplishment, that when the spring first calls into existence all her legion of charms, your handiwork shall come fully prepared to be amongst the earliest to spring into the arena of the pristine pleasures of the year.

And then again, beware of going beyond your "appropriation" for such improvements; the commonest of all errors is, in this respect, to attempt too much. If you feel that you can spare two hundred dollars for improvements, make your calculation for the expenditure of only one. Little of the original amount will remain in the treasury by the finishing of the job.

It does not, in very many cases, require much time or money so to alter the appearance of a place as to make it bear a very different look to what it did in the past year. A new clump of cheap shrubbery may be planted, or an old one taken away to admit a new view that may have grown up since the original planting. A strip of grass may be laid down on what was once bare gravel. Here a small rockery may be put together; there a nest of roots thrown up, and ferns and trailing plants freely interspersed between them. In this corner you may place a stump, and entice ivy or some climbing vines to grow over it—a rustic arbor may be formed in some inviting nook, and in another shade-enticing spot, a rustic chair or bench be fixed. Even the outlines of the flower beds may be changed, or of the walks themselves, or even the contour of the surface in some instances, and all, in many instances, at the expense of a very small expenditure of time and money.

In all these undertakings, money, time, and vexation will be saved by consulting with men who make it their business to study such matters. Every one can, of course, design and lay out his own garden, just as well as he could make his own coat, or design the pattern of his own chandelier; but he will find in the end that his landscape gardener, his tailor, or his manufacturer of lamps, would have done the work much more satisfactorily for him. Many suffer from ill-fitting garments, and badly designed gardens, through employing botches and ignorant pretenders, but the man who has not tact enough to discriminate in this respect, deserves to suffer.

VINERIES AND ORCHARD HOUSES.

At this season of the year, one of the most usual subjects of attention with many parties is the preparation of a vine border.

It was once supposed that, as the vine is well known to be a gross feeder, the border at its formation could not well be too rich, and consequently, when such an arrangement was in progress, all the dead horses, dogs, and animals that could be found for twenty miles round, brought very high premiums. But the practice has fallen into disrepute; not because it does not possess some merits, but because, like many other good things, it has been overdone.

Very much of the success of your vine border will depend on the vines themselves: a statement which will appear paradoxical to many; but it is a fact, that so long as the plant remains healthy, and the roots push actively and vigorously, the soil of a grape border can scarcely be too rich, and it is only when, from whatever cause the vine becomes unhealthy, and the roots diseased, that a highly nutritious border adds to the injury and makes the matter worse. Hence, the danger of too rich a border in the hands of the inexperienced, and the value of caution on the part of all in making a new experiment.

Keeping in view, therefore, that the first essential of successful grape culture, is the production of an abundance of roots, and their healthy preservation afterwards. The first great principles of subsoiling and draining must be sedulously attended to. If the subsoil is retentive, a drain, at least three feet in depth should be made all around the proposed border, and should be led with a good fall into the nearest outlet. A good warm subsoil is very important in grape culture, and draining is one of the best ways of securing it, as when the rain can readily penetrate through into the subsoil, the warmth at the surface in the spring is carried rapidly down into the soil, and is very advantageous at that growing season. Too much attention can scarcely be given to this matter. The drains may in part be constructed of bones, which will serve the double purpose of affording nutriment, and warming the soil at the same time.

Where the soil lies naturally low, it is often judiciously the practice to elevate the border considerably above the surrounding surface, which effects much the same purpose as deep draining accomplishes so successfully.

As to soil, where choice can be had, we think there is nothing preferable to the surface of a pasture field, taken off, say two or three inches deep, and to have with every three loads of it, one load of stable manure, thoroughly decomposed—say two years old hot-bed manure incorporated with it. Any richer materials that may be at hand may be deposited at the outside of the borders. When the vines get older, and the roots strong and hungry, they will then find, and not despise, whatever delicious morsels may thus be in store for them.

As to the width of the borders, we have always thought sixteen feet ample, and in cases where space was an object, we should be satisfied with much less; as, where the roots can be healthily maintained, good food can always be supplied. Indeed, ideas are fast changing in this respect. We well remember the time when it was universal to throw away a pot vine after the fruit had been cut, but now, modern practice will produce good grapes several years in succession from vines in the same pots.

Where it can be effected, it is better to have the vine border run under the grapery as well as along on the front.

With regard to pruning the vine, it must not be forgotten, that what is done at this season, is with the object of making the plant push with greater vigor next season, looking forward also to the future shape and form that such pruning will cause the vine to assume.

Many prefer to have always a good succession of young canes, as bearing wood. The old wood is cut away every year entirely to a new cane which has been carefully trained up from the base during the summer, is now made to replace the old shoot; but this kind of pruning has to be attended to in the summer season more particularly, and need not be further referred to at this season, except to see that the cane is shortened down somewhat, according to its strength; usually being suffered to occupy about two-thirds of the rafter.

Those who prefer very large bunches, and who dislike to have their vineries crowded with "wood" during the summer, usually train up a single cane to the rafter, which is ever after retained permanently there; and the side shoots, which spring out yearly, and bear fruit, are annually shortened in to one eye at this season, and push again, and again bear the next.

There are many modifications of these two systems

of training and pruning, all with various advantages and with their several champions, which those who aim at perfection would do well to study, and to which there are several interesting volumes specially devoted.

We have frequently, in the course of our past volume, referred to the orchard house and its interest and advantages, and our readers are aware that we do not look upon these structures as in any material degree destined to render careful attention to the outdoor culture of fruit less necessary than we now find it to be, but as conveniences for getting fruit earlier; and besides, for the interest attached, in so many ways, to this mode of fruit culture, it will ever be popular. In forming these structures it is very important in our climate that they should be cheaply and yet substantially built; not cheaply as to workmanship, but in the principles of construction.

We extract from that very excellent, but unfortunately very expensive work—"*The Book of the Garden*," by Charles McIntosh, a design of a very simple and practical character.

Figure 1.

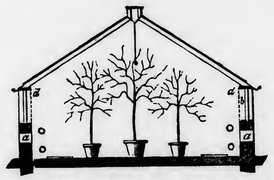
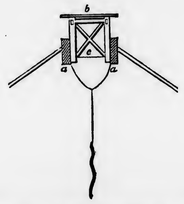


Fig. 1. is a sectional plan of the house which is 15 feet wide, and 62½ feet long. It is heated by hot water; the stoke hole and boiler being in the middle of one end. The roof being on the fixed roof principle, ventilation is furnished by the side ventilators, *a. a.* opening opposite the hot water pipes, and also by the side lights *b*. and the ventilator at the apex of the roof, which is formed as follows. See

Figure 2.



The ridge, instead of being formed of one beam, is formed of two 2 inch planks, *a. a.*, 9 inches wide, and kept apart to the required opening, say, about a foot, by iron bolts.

Figure 3.

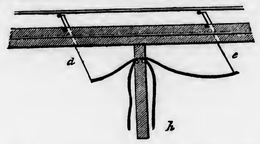
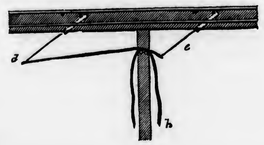


Fig. 3. is a longitudinal view of the ventilator when nearly open, and

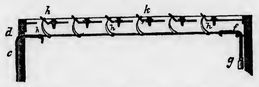
Figure 4.



of the same when nearly shut. The capping *b* in figure 2, is lifted and shut by being attached by hinges to the tumbler *c*. This is acted upon by the levers *d e*. To each of these again is attached a line, passing over a pully in the upright *h h*, which also supports the roof. By pulling the right hand line in figure 4, the lever *d* is drawn towards the perpendicular, more or less, as ventilation is required and kept at the desired point by fastening it to a stud in the upright. The levers *d e* in figure 3, as well as all the tumblers *c* in figure 2, are acted upon at the same time, by pulling the left hand line, the whole action is reversed, and the capping or top of the ridge *b* falls close down, and ventilation is suspended.

Another very excellent mode of furnishing top ventilation to houses with fixed roofs is shown in

Figure 5.



which is a longitudinal section of the roof, on which are small tin, copper, or zinc frames fitted with glass, which are acted on by a sympathetic movement.

The operation is as follows: by pulling the cord *c*, the rod *d. f.* is drawn forward, which acts on the levers *hh*, which opens the ventilators *k*, and the balance weight at *g* closes them again when required.

Communications.

CULTURE OF HORSE-RADISH.

BY A GARDENER, MORRISANIA, N. Y.

In nearly every garden, the horse-radish is stuck away in some stony or obscure corner, and left to grow for years, producing roots the size only of a finger, and rank and acid in taste. The way to grow it to be palatable and in one year to be the size of a man's wrist is as follows:—Select a good sunny piece of ground; dig it early and deep; mark off the rows, 3 feet, and put along the row as much manure as for Celery; draw the earth from both sides over the manure, and with a crooked cedar stick, plant the roots standing almost horizontal in the manure, so close, that the roots of the second plant are close under the first one. The roots to be planted should be finger-thick, about 12 to 16 inches long is most convenient; get them out early in April, and rub or scrape with a knife the whole length to within ½ inch of either side; in the latter part of May or beginning of June uncover the roots; and all the little roots, except the lower ones, have to be rubbed off; as also all the shoots and heads but one, and to be covered up again. It is beneficial to tear the big leaves off, in July, and September repeat the operation, and by setting in of cold weather you will find thick and tender roots, which sell here in New York, from 10 to 12 cents a piece.

DOWNWARD CIRCULATION OF HOT-WATER.

BY R. BUIST, PHILADELPHIA.

Mr. Editor:—

It has always been doubtful whether Hot-water in heating Greenhouse structures would descend just at the boiler and allow a walk to pass over it, and then rise again and flow freely. We undertook this disposal of the flow pipe with a new boiler just put up here, whilst doing it, several practical men from the other side, as well as others in this country, all prophesied it would be a failure, even some of them affirming that it had always been a failure, even when tried at the boiler, but not so, if it occurred at the extreme end. I did however get one, and only one, to encourage a hope of success, that hope, however, was so faint that we left all the implements to cut out the dip next day, fully expecting a failure, after such a "*balance of power*" against us. In twenty minutes after the fire was applied to the boiler, I found circulation commencing, and in less than an hour all was acting like a charm. The top of the boiler is two feet above the walk, the flow-pipe dips and allows the walk to pass over it, rises two feet and a half and goes on as freely as the flow that has no dip.

I do not pretend to say that that is a discovery of mine; it must have been put into practice on many occasions, but certainly is not generally known. This, with the article in a former number of your paper, on the subject of heating by hot-water, must show it can be made to circulate in any direction.

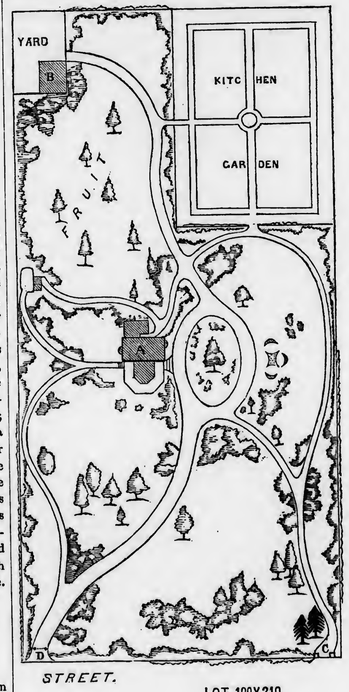
I am yours, truly, R. BUIST.

ROSEDALE NURSERIES, October 17th, 1859.

DESIGN FOR A SMALL GARDEN.

BY J. C. SIDNEY, PHILADELPHIA.

DEAR SIR:—According to promise, I hand you a design for a small garden. As you have remarked in a former number, a design that is beautiful in one situation, and under a certain contour of the surface, is not applicable to another; but it may furnish hints for other places. The spot for which this design was made, had a perfectly level surface, little or no terracing about it, and the principal effect had to be derived from the disposition of the shrubbery.



A. Dwelling house.
B. Yard and Stable.
C. Private entrance from street.
D. Carriage entrance.

Masses of shrubbery are placed along the boundary fence, and clumps at the connections of the walks, the object being, as much as possible, to hide one walk from another, an important point in laying out a small place.

THE GRAPE CROP around Cincinnati, Ohio, is said to be the largest ever grown, and is estimated as worth $1,000,000.

TRANSPLANTING TREES.

BY S. N. DODGE, NEW YORK.

DEAR SIR:—

Like many other subscribers to your paper, I am anxious to contribute some acquired knowledge, having little practical. Noticing in your paper Essays on Transplanting Trees, I take the liberty of repeating the observations of an old Amateur Gardener, whose city cottage was most beautifully embellished with rich Deciduous Trees and Shrubs, in addition to rare and fine flowers, and thriving pot herbs, &c. My question was "How have you succeeded so well to have such thrifty and large surroundings in the few years of your occupancy." He answered, I never fail in transplanting, if I strictly observe three rules. The first was, to mark the portion of the tree or shrub to be removed, in reference to the points of the compass, as otherwise, its sap-strength after removal, may be exhausted, in the natural effort to change the condition of the misplaced southern bark, to a northern, its eastern to a western and *vice versa*. (1)

His second rule. He could not reason out as well except by practice and analogy, it was this: To set out all Shrubs or Trees, such as grow out of the earth, "*in the increase of the moon*," and all root plants, such as Beets, Carrots, etc., in the waning or decrease of the moon. Perhaps it may be reasoned, the general state of atmospheric electricity, which is so often beautifully set forth, when the summer shower from the clouds will cause the drooping grass to stand up in renewed beauty and vigor, is likewise more regularly influenced by the galvanic power of the moon's changing phases, instanced in its tidal power, its effect on the sexual system, the common belief in the solidity of the pork, when proper reference is had thereto in its killing. (2).

By the way, has it ever to your knowledge been tried, to form a rude Voltaic Battery by proper disposition of copper and zinc plates in a green-house, to keep up a full vitality to its beds, which so often die out as it were from want of atmospheric action and a sort of dry rot? (3).

His third rule, was to make the hole wherein the transplanted tree was to be placed sufficiently large to allow him to locate carefully the fine fibrous roots, as nearly in their natural, original position as possible, covering them carefully with the original soil.—The philosophy of these rules may not be altogether acquiesced in, I only know his success was the admiration of all observers. And now to my own business.

I am terracing about an acre of good hill-side land, with a north-western exposure, and would like the advice of some competent person, in reference to the arrangement. The first terrace is about 50 by 130 feet wide, to put in with Raspberries, Strawberries, String Beans, Peas, Melons, and such vegetables as grow low. The second, 40 by 130 feet, I thought Potatoes might be serviceable. In the third for String Beans and Corn. The fourth for Dwarf Pears, small Apples, Cherries, &c.; on the border of the third, I propose to put 10 or 12 Grape Vines: such as Norton's Isabella, white and blue Wild Grape, or such others as may be well commended. I will pay $10 each for three best directions. I may yet arrange the names of the proper seeds, etc., and their cost, and the best kinds of Currants and fruits of that character. And that writers may not be without some security for their trouble, I will refer you to Messrs. C. Schrack & Co., 80 North Fourth St., in your city, who are old correspondents of mine, and will guarantee.

Yours, &c., S. N. DODGE,
189 Chatham Square.

P. S.—Let the gentlemen give me their own ideas of beauty and utility, premising that the house is on the top of the hill, looking over these terraces to the Hudson River, and therefore the Corn, Beans, etc., should not be obtrusive. S. N. D.

[(1.) Sir H. Stewart maintained the same principle. In critical cases, it may be worth some consideration. Generally, we attach little importance to it.

(2.) In spite of our inclination to consider all reference to the moon's signs, "nonsense," we must admit that we know many who studiously "go by that rule," and are amongst the most successful gardeners. The moon is, of course, always of one size, and the only difference between the quarters and the full is in the amount of light reflected on the earth's surface. Has the amount of moonlight anything to do with vegetable growth? Experiment ought to show something decisive. It has been ascertained that the moon's rays possess a slight heat.

(3.) Experiments have been tried on growing crops, with no effect.]

AMATEUR HORTICULTURE AT THE FARMER'S HIGH SCHOOL OF PA.

"BY DIGGING FORK."

An allotment was made last spring of individual garden-plots to all students desiring them. Over thirty were taken. Nearly all have been kept in high condition, and are now in as neat trim, and as clean as when first made. They vary greatly in their features; some are chiefly devoted to melons, sweet potatoes, &c.; some are little nurseries; some are gay with clouds of flowers, and redolent of fragrance; others incline to vegetable culture; and others again are usefully experimental.

These pleasant grounds are the Society Halls of *practical culture*, and 'Greek meets Greek' there with a tug as bracing and stimulating as in the *intellectual* arenas of the "Cresson" or the "Washington."

There has been no falling off of interest. On the contrary, the excellent keeping of the plots has crowned them with such a profusion of bloom and seed, that industry has been increased rather than diminished, and there is as great activity now in storing tender plants, dividing others, collecting seeds, and preparing new grounds for more extended operations, as there was in grubbing, digging, and planting last spring. All the work thus done is additional to the three hours of required daily labor, and other volunteer work.

A distinguished officer of one of the most prominent collegiate institutions of our country, was a visitor to these gardens lately, and he remarked that *they* had felt desirous of giving garden plots to their students, but had considered success too doubtful to justify the attempt, and probably it would not succeed where there is no regular daily exercise in labor, yet it is in an eminent degree salutary, in disposing to the study of nature and the arts of culture, inculcating respect for protective laws, and especially in clearing away the cloudiness and dulness of brain which so often befog the sedentary student.

Of course, deep draughts are taken from that well-spring of practical and seasonable instruction—the *Gardener's Monthly*. It is received and read with eagerness, and perhaps no paper in the reading-room has a better or more general appreciation. I hope and think that not a few of our friends and correspondents have their names on your lists.

"DIGGING FORK."

September 26th, 1859.

THE APPLE-PIE MELON.

BY J. F. EVANS, M. D.

WALLACE, PA., October 20th, 1859.

The January and February numbers of the *Gardener's Monthly*, gave the writer his first intelligence of the existence of this fruit, and excited in him a desire to obtain it. In exchange for other rare seeds, I procured enough to plant nine hills, to each of which I allotted ten feet square of moderately fertile ground. The ground was prepared and planted, and the hills protected as in the culture of the Cassabar Melon, described on page 54, April number of the *Gardener's Monthly*. The vines ran wild, trespassing on other beds, and clambering over a stone wall into the road. For a long time it seemed doubtful whether I would have any fruit or not; in the early part of August, however, I discovered a little woolly melon, which enlarged with astonishing rapidity. Another and another formed in quick succession, so that within ten days of their first appearance, I had a prospect of a fine crop.

On one side of the melon bed I had sweet corn, and on the other, what is called Egyptian wheat, and there were many melons on these beds before any were found on the melon bed. This fact may be worth noting, as it argues in favour of the utility of shade.

The 900 square feet of ground yielded 125 melons; the aggregate weight of which was 2071 pounds. The largest melon weighed exactly 50 pounds; the smallest, probably 6 pounds. Of the largest twelve, none weighed less than 40 pounds. They were weighed in the presence of two competent witnesses. It will be observed that the ground allotted to them was something less than the forty-eighth part of an acre, and the yield was at the rate of a little more than fifty tons to the acre.

In my own opinion the pies of these melons are at least, equal to the very best of apple pies, and the custards not easily excelled. Contrary to what we were led to expect from the article on page 22 of this journal, a half-hours stewing was found sufficient to reduce them to a soft pulpy mass.

Some of these melons were boiled in sweet cider, and turned out a very superior apple-butter—an improvement on the genuine article, as it was much smoother, and more jelly-like.

If their keeping qualities stand the test of our climate, the Apple-Pie Melon will be indeed a valuable acquisition.

[Our notice of this melon has obtained for it very extensive trial, and we are glad to find in every instance that we have heard of, that it has proved as valuable a fruit as we anticipated.—ED.]

DIOSCOREA, AND OTHER MATTERS.

BY OLIVER TAYLOR, LOUDON, VA.

I have been growing the Dioscorea the past three years, and am much pleased with it now, though I did not think much of it at first.

I commenced on six small roots; now I have grown them three seasons and have seven hundred roots, from 12 to 18 inches long, weighing about one pound each. I have dug them each year, which, I think, is not so good as to plant the bulbs off the tops about 18 inches apart each way, and let them grow 2 years before digging. Of course, the soil should be made loose enough for the roots to penetrate for three feet down, which is the most trouble in their culture. They can be easily kept clean by a wheel plow which we have here, the first year, and the next year there will be little trouble with weeds.

By the way, the plow I allude to is a peculiar one, and I venture the assertion, that all Yankeedom has not equalled it, and perhaps they never will. I keep two of them, and had I to do without them one season, I do not think fifty dollars would hire the work done which they do. It is, I think, the only wheel-plow that ever can be employed to advantage in all soils, and worked entirely by hand. The peculiar construction of it is this:—an iron wheel made with a cast hub, very small and wrought spokes and tier, so put together that the weight is in the rim of the wheel, and not in the centre. The momentum is from the wheel, and whenever a Yankee, or any one else, except the originator goes to make one, they always case a wheel, and the plow is worthless, and they can't see why. I have worked them for ten years past, and could I get the eccentric genius that built them, to make a thousand, I could sell them all, I think, in a few months; but there is the trouble, he is a splendid worker in wood and iron, and delights more in making what no one else can, than in getting gold together for his work.

So many persons seeing them here, and we not being able to get them made—we got some made as neatly as we could, but made so poor an article that I will not attempt it again without an accomplished mechanic takes hold of them. This man makes them all by hand, and sells them at eight dollars with

four shovels, &c., which does not pay him. He will not get out a patent; but were they made by machinery, made on purpose, no doubt they could be furnished for five dollars.

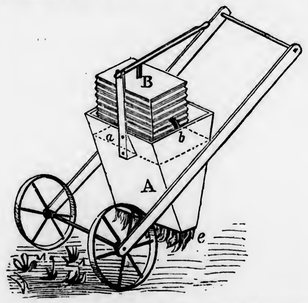
I have grown some of the Imphee the past summer, and think it is likely to be a great grain producing plant. Perhaps it will supplant the valuable *Indian Corn*. It doubtless yields very heavily, and all stock feed well on it.

[Our friend's letter has lain on hand longer than we intended. Hope soon to hear from him again. —Ed.]

WEED, SEED, AND ANT KILLER: FOR GRAVEL WALKS AND ROADS.

BY C. G. PAGE, WASHINGTON, D. C.

The present usual management of gravel walks and roads, is very expensive and radically wrong in principle, and is in fact a species of cultivation not unlike that of *putting in a crop* for future growth. First hoeing, then raking, then rolling. First loosening the surface, then raking in the innumerable seeds lodged on the surface, then covering and setting them in with the roller, for a second crop. This is tolerably good culture. If we could regulate the rains to our gravel walks the repeated use of the roller would keep down the weeds and the ant-hillocks to some extent, but it is not often that we can have them in just the right degree of consistency to be benefitted much by the roller. Sometimes a month of wet weather, or two months of dry weather will render the roller useless and inoperative, and meanwhile weeds, scattered seeds and insects are accumulating. It is next to impossible to keep a walk clean that is not constantly travelled and trampled, and the true principle seems to me to be this, *the surface must never be disturbed*. Starting upon this presumption several years since, I conceived the use of fire, and after trying a red hot roller, and a roller with a fire inside of it, to no purpose I arrived at the use of fire direct, by means of the machine here illustrated.



A. is an iron box with a fire grating at the bottom; *B*. is a double acting bellows with a wind chest. In the upper part of box *A*. is a diaphragm *a*. through which air is supplied to the fire below; the diaphragm and cover of the box on which the bellows rest being removable for the introduction of fuel. The blast pipe *b*. passes from the wind chest through a hole in the cover. As soon as the fire is kindled by the action of the bellows, the driver moves forward with the machine all the while working the bellows with one hand, and the flame issuing from below consumes the weeds, seeds, and insects, leaving a clear track behind it. Various kinds of fuel will answer, but those giving much smoke are objectionable. A fan blower geared from the driving wheel would be a good substitute for the bellows, but for one objection; where it is desired to move slowly or perhaps to pause over large weeds, the blower would cease to act, and would require other means and extra machinery to keep up the action; I have not therefore yet tried it on this account. In large machines to be worked by a horse, the fan blower might be preferred to, and cheaper than the bellows. This machine does not dispense with rolling altogether, though when a road or walk has been purged by fire, instead of disturbing by the usual treatment, it is obvious that but little rolling will be necessary compared with that ordinarily required. I have tried the machine upon a small scale, and taking a dry time when the surface was covered with little weeds, just starting from the earth, the fire made a clean sweep so that not even a cinder could be observed. It can be carried very close to the surface, and by having guards on either end of the fire box, it may be run close to box edgings without injury. It occurs to me that the machine is susceptible of other uses, and among them the melting of ice from pavements in winter, to save them being injured by chapping, etc. I desire to place the manufacture of this machine in good hands, and will dispose of a liberal interest to any party who will undertake its patronage.

CHARLES G. PAGE.

WASHINGTON, D. C., October 11th, 1859.

TO PROPAGATE PAVETTAS, DRACŒNAS, BEGONIAS, &C.

BY WILLIAM PAYNE.

Plants with ornamental foliage are becoming all the rage, and many amateurs take an interest in raising these plants as presents to friends, or as an agreeable amusement. Most of the Begonias are raised from leaves, or pieces of leaves, in the warmest part of the house; sometimes *pots* or *dishes*, filled with sand, are chosen, and covered with "*bell glasses;*" in other cases small boxes are made, generally about eighteen inches across, two feet long, a foot deep at the back, eighteen inches at the front; this makes a propagating box suitable for raising tall leaves; take for instance, the *Pavetta Bourbonica*, (a plant which is scarce with us yet because it is not generally known that leaves of it can be raised into plants.) This box is covered with a glass top which can be made either of a sheet of strong glass, to run in a groove like the sliding lid of a box; this with a little chain and pin is very suitable for giving a graduated quantum of air, when required, or a lid may be made to slide as a common frame, the desirable principal being the facility with which small quantities of air can be given when required; the box may have a bottom, or not, if a bottom, a few holes should be made in it, if no bottom is needed, then a small bed may be made on the flue, or an earthenware dish, two and-a-half or three inches deep, which may be made to fit exactly the wood work; this can be filled with a compost of sand, three parts, to one part of Peat; a good watering makes the arrangement for work. If I were propagating for sale, I might probably prefer Tan in which to plunge my cuttings, but the material would hardly be admissible into a show house, such as is generally kept by amateurs, for whom we are at present writing. When all is ready for the cuttings, a small thermometer is useful to indicate the heat, &c. The "*Pavetta*" may be taken, and if possible, a branch cut from it, where the wood is ripe, and the leaves matured, so as to stand plump and firm, then the leaves must be cut off just as if they were required for budding purposes; these must then be taken and sunk up to the bud, firmly pressing the soil round them to keep them erect; they must be kept nicely moist, which will be found quite easy to do at first, as very little ventilation will be required; for eight days or so; they should be shaded in bright sunshine, and if the temperature be kept constantly up to about seventy, they will soon strike root. When rooted, they should be potted into small pots, containing a mixture of one-half Peat, and one-half sand; these can be plunged in the same place where they were raised, when they soon begin to make themselves at home; with a little nursing they can be hardened off and speedily become independent plants. I have known one large plant cut up, leaving the original nearly destitute of leaves, when the plants were a ready sale, at a good price, and have seen a box-full raised exactly on the principle described, and not one single leaf lost, each leaf forming a plant.

The "Dracœna terminalis," a plant of highly ornamental character and fine Palm-like foliage, and bright coloring, is successfully raised in the following manner:—when a plant has grown too tall for our fancy, for it has quite a propensity to grow up, and very frequently to lose the bottom leaves, which renders the stem rather unsightly. With a plant of this sort, the pot should be emptied and there will be found some thick roots, generally amongst the crocks at the *bottom of the pot*. These roots are about as thick as the little finger, and are furnished with a sort of terminal bud; they may be, after a little drying, to prevent them damping off, (leaving them *on* the surface of the propagating soil for about three days will do.) may be inserted as cuttings, and they will make very nice plants in a very short space of time. The top of the plant may then be put in as a cutting; this makes a specimen shortly, and the remainder of the stem can be cut into small pieces of about an inch long, left to dry as before recommended, for a few days, and when perfectly healed, put in as cuttings; they will all grow.

A long piece of the stem, if laid horizontally, just below the surface of the soil, in a good bottom heat, will shoot at every joint, and it can afterwards be cut apart, and make plants.

TALK UNDER THE PORCH.

II.

BY H. G.

Uncle.—Dolly, go tell George he shall lay down the shovel and the hoe, and come here under the porch.

George.—Here we are, Uncle, what can I do for you?

Uncle.—You can sit down here,—not on that side, or you'll be in Dolly's light,—and you can tell us all about those substitutes for that unfortunate box edging, which you so fully demolished the other evening.

George.—Well Uncle, I'll try. In the first place—

Uncle.—Give us the best at once, George, and I'll forgive you the rest.

George.—Well then, the best substitute is grass, which, after all, makes the simplest, neatest, and most charming border. If it does want edging, cutting, and weeding, it fully repays all that trouble.

Uncle.—Profoundest of critics, if that is all the new devices you talked of, why I must set you down a hum——.

George.—Sincerest of all the uncles, I am no bug of any kind, and indeed, I must protest, and I take Dolly here as my witness, that I will not allow you to do as if I assumed the knowledge of ever such a lot, or as if I set up a teacher in Gardendom, whilst really—

Uncle.—That'll do, George. Go on with the new devices.

George.—Well, here goes. You consider grass ancient, suppose then, we take in its stead, low-growing perennials, say daisies, primroses, violets, and such like; or perhaps better yet, the annuals, fragrant mignonette, or portulacca, or the classic thyme.

Uncle.—They—have—to—be—cultivated.

George.—So—they—have, uncle. But what of that, I don't believe in a garden without a gardener.

"Whoever does not, soul and body, strive,
He will not earn the recompense of praise
And thanks of his fair ladye love."

Dolly.—(With a shake of her head,) Ain't *that* pretty, brother George!

George.—If you don't want any trouble of cultivation, take to bricks or boards for your frames and edges, they don't want cultivation, do they? or to your ugly box.

Uncle.—Ugly box, hem! Go on, George, go on.

George.—If your beds are laid out on the grass, islands in a green ocean, as a pretty green writer called them, and if they are not exactly flower beds, but rather for shrubbery, and high in the centre, you may take Mahonia aquifolia, or the newer Mahonia japonica, or even Deutzia gracilis, all of which grow low and slow; set them out as frames for your beds, leave two feet of dirt between them and the shrubs, encourage bottom-growth, and trim them, the *inside* of them, into miniature hedges, and you'll not be disappointed.

Uncle.—A pretty fancy! I wish I could see such a thing.

George.—Is your bed, however, less large, and does it contain, say roses, pink, crimson and white blooming ones, and if you will please give it a pretty steep curve, sort of inverted saucer; then, uncle, I propose you encircle it with small sized golden arborvitæ.

Uncle.—Not a bad idea, George, I think, myself, its sunny green must bring darker foliage, and pink and crimson blooms into beautiful harmony with itself.

George.—And the circle will be of novel shape, not flat and smooth, scolloped, fringy and bold, only have an eye to pick such as grow quite low down, and if your bed is large, and made-up of high growing plants and shrubs, try a double circle, the outer of the very smallest specimens.

Dolly.—As I have seen ladies' dresses with a wide and a narrow flounce.

George.—Or, as you see mouldings for panels or frames, composed of broad and narrow lines.

Uncle.—And what shall I do when they have grown too tall for serving as a frame?

George.—That will take a long time, and then you will take them out, and if you choose, replace them by small ones.

Uncle.—No! You don't say so!

George.—I do, uncle, waiting your better suggestions.

Here my uncle fumbled busily in his coat pocket. "You should have thought for the suggestions," and brought forth his snuff-box. It saved argument. That snuff-box, and Dolly, all innocence and roguery at once, accompanied the solemn pinch with her full looks on my uncle's countenance. One should have called that pause an armistice, foreshadowing peace. But no, when click! the lid had fallen, peace was shut up in the box, and, said my—

Uncle.—Is there anything else in the shape of new devices?

George.—There is! lots of them, particularly for walks.

Uncle.—Indeed? Well!

George.—Well, uncle, you must give me time; they require some sketching, and I am not prepared.

Uncle.—People of *my* age, George, are naturally patient. I will wait for the next time.

[We are much obliged to our young friend for his two capital chapters, and hope he will try his hand again at other subjects. He has hit on many original ideas that may be valuable in many instances. We must, however, observe that "*Uncle*" has not argued the point in favor of Box-edgings so well as he might. Utility has to be consulted as well as beauty, and box has not only to make a pretty (or ugly?) border, it has to keep the dirt from washing into the walks at the same time. Is there anything else that will so well effect this? As to the *golden* arborvitæ, "Uncle" no doubt would know by his bills, if he has bought any, that it is *well named*, and the expense of a few yards of edging, even of small plants would be a serious obstacle.—Ed.]

NOTES ON GRAFTING-CLOTH.

BY C. E. KELSEY, PERU, MIAMI COUNTY, INDIANA.

In some of your remarks on Root Grafting it would be well to caution those using waxed cloth, not to use it too freely. This knowledge cost me at least 200 during the winter of '57; I root-grafted 10.000 this, being the first *root-grafting* I ever did; I used the strips of cloth too long, winding the roots too much; consequence, cloth did not rot off, trees grew well but could not expand where the bands were, and at least one-fourth have broken off where bound. I presume there will be many in the same fix, and I am not unwilling to expose my *past ignorance* in order to have you caution others.

NEW GARDEN RAKE.

BY J. S. WOODSTOCK, CANADA WEST.

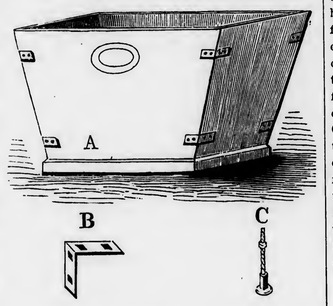
Dear Sir:—I secure a rod of cast-steel wire, one-eighth and one-sixteenth of an inch, (plump.) A rod ten feet long costs 12½ cents. I drive 7 teeth of this, firmly into a tough wooden head 1 by 2½ inches. I put the 7 teeth 2½ inches apart, which for all common purposes answers much better than to have them closer.

Five of these teeth, at some distance, in a good handle, far surpasses a hoe for stirring the soil; in fact, I think will be found, for all ordinary purposes, quite equal to your beautiful and useful implement, the "drag-hoe." White Maple makes the best hoe or rake handle. I make the teeth of this size steel, 3 inches long, beyond the wood. It is well not to bore the hole for them through, by a ¼ of an inch. They are very strong, made thus. Very light and durable; also cheap; 12½ cents will furnish all the materials for a rake, and anybody can put them together in half an hour, or an hour at most, but its easy and efficient working is the best of all.

SLATE BOXES.

BY J. T.

The subjoined is a rough sketch of a slate tub, which I have seen extensively used in the Botanical and



other establishments of Europe, in place of large pots, (which are both unsightly and cumbersome.) They are fixed together on the spot, with iron clasps, B. and copper bolts and nuts, C. which do not rust. The bolts are inserted from the inner side that they may be taken from together at any time without disturbing the roots of the plants. The bottom should be made loose, that is, it should be made of stout pieces of oak timber, and nailed firmly together, a little larger than the tub, so that with the aid of crow-bars, the largest may be moved easily on rollers. When it is wanted to retub a plant, the best way is to place the old tub upon the bottom of the new, raise the roots to the proper height upon bricks, drainage and soil, then unscrew the old tub and fix the new one in its place, leaving the bottom of the old tub to assist as drainage for the new. It could not be taken away without greatly disturbing the roots, and I know of no great objection to its remaining.

EXTRAORDINARY GROWTH OF A TEA ROSE.

BY PROF. PAGE, WASHINGTON, D. C.

Tea Rose Devoniensis has been characterised as the "*Tea Rose par excellence*," but Glorie de Dijon promises to eclipse this and every other rose for general culture in this latitude; since its introduction here, four years ago, I have not heard of its being injured in the slightest degree by cold, though during that time the winters have been more severe than for thirty years previous. Some Roses are more injured here in open winters than in hard winters, in consequence of winter growth, but we have had upon the Dijon Rose, two hard and two open winters, and I have never seen even the extremities of the shoots injured in either case. I notice that some of our florists class it with Noisettes, but it is most essentially a Tea Rose, and I think Devoniensis ought now to yield the palm. For fragrance it is a fair rival, and for other desirable qualities preeminent above all others. Its color is at times fascinating, though variable: sometimes it is very yellow, sometimes salmon, pink and yellow mixed and sometimes cream; but when it puts forth a huge cup shaped flower with *smooth* petals grading in color from a pink and yellow margin to a deep salmon centre it is *matchless*. Its foliage is not the least of its charms and good qualities, and I have never found any rose so well adapted to cultivation in the greenhouse as the Dijon, either in pots, vases or upon the walls, withal, it bears *seeds* and gives promise of a progeny that may be free from its only defect. Its petals are sometimes ragged, giving it a wilted appearance and disqualifying it for bouquets; but its growth and habit outweigh all its other merits, and cancel all objections, and if any of our nurserymen are fastidious about *budded roses*, they may as well cede the point so far as the Dijon is concerned. It grows well upon its own roots, but from four years' experiment I am satisfied that its growth is incomparably better when budded, and if the following description of the growth of a budded Dijon bush in one season, can be equalled anywhere by a Dijon on its own roots, I shall be ready to cede my position. A Dijon bush budded upon a Manetti, set out upon the eastern wall of a house this spring has by this time accomplished the following extraordinary feat: it has made one shoot of 14 feet, one of 13, one of 13½, one of 12½, one of 7, one of 8, and one of 3 feet, and in the aggregate, has therefore grown 71 feet in one season, and this is the first season of its setting out. In all this exuberance of growth it has not been devoid of flowers, and Rose Connoisseurs will be surprised to learn that while all this vegetation has been supplied through the roots of the Manetti, this latter has never offered to send forth a shoot or sucker from itself. Time may show to the contrary; but thus far I find that the Glorie de Dijon and also the America Rose entirely suppress the tendency to sucker in the Manetti stock, and doubtless this will be the case with vigorous growers generally.

CHARLES G. PAGE.

Washington D. C.

DWARF PEARS.

BY T. G. YEOMANS.

WALWORTH, New York.

Mr. Thomas Meehan, Editor of the Gardener's Monthly:

My sale of Pears this year, from one-third of an acre of Dwarfs, amounts to a trifle over $500.

Six barrels of which went to Philadelphia, at $25 to $30 per barrel. 17 barrels were purchased in New York and taken to Cuba. Does not this indicate success with dwarfs? Respectfully, T. G. Yeomans.

[Excellent.—Ed.]

NEW PARK IN BROOKLYN.—It is proposed that a portion of the high ground in Brooklyn, known as Greenwood ridge—extending from Prospect Hill to Greenwood, be set apart for a Park. *Life Illustrated* says:—"Fine as is our own Central Park, this will be its superior in natural advantages—and while for our neighbors we desire this great boon, we feel we are saying a word for some of our own citizens, as the centre of the Brooklyn Park will be considerably nearer the New York City Hall than is the nearest point of the Central."

FLORAL WREATHS.—The *Homestead* thinks the beautiful design we figured some months since from one brought from Berlin, Prussia, was originally invented by the ladies of New Haven,—which is not unlikely. Our country is unfortunate in obtaining credit for what is really its due. The *Rural New Yorker* recently credited the *London Cottage Gardener* for a design originally furnished to this journal by a Correspondent.

The Gardener's Monthly.

PHILADELPHIA, DECEMBER 1, 1859.

☞ All Communications for the Editor should be addressed, "THOMAS MEEHAN, Germantown, Philadelphia," and Business Letters directed to "THE PUBLISHER OF THE GARDENER'S MONTHLY, Box 406 Philadelphia."

PUBLISHER'S CARD.

The Publisher, as an inducement to those persons who cannot afford to devote their time gratuitously to extending the circulation of this paper, begs leave to offer the following PREMIUMS.

☞ FOR EVERY CLUB OF ONE HUNDRED FULL PAID NEW SUBSCRIBERS, whose address and subscriptions are forwarded to the office, TWENTY-FIVE DOLLARS IN MONEY, or a WILCOX & GIBBS FIRST PREMIUM THIRTY DOLLAR SEWING MACHINE. This Machine was recently, after a severe trial and close competition, awarded the *highest premium* by the Franklin Institute, and is now the favorite with the ladies; doing its work rapidly and noiselessly, and not liable to get out of order, and very easily managed. For further description of it, see our advertising columns.

☞ For every Club of Fifty full paid new Subscribers, whose address and subscriptions are forwarded to the office, TWELVE DOLLARS AND FIFTY CENTS IN MONEY.

☞ For every Club of Twenty-five Subscribers, under the same conditions as above, SIX DOLLARS IN MONEY.

☞ For every Club of Five Subscribers, under the same conditions, ONE DOLLAR IN MONEY.

THE NEXT VOLUME.

This number closes the first volume of this periodical. The first number of the next volume, for January, (which will be greatly improved in appearance and enlarged in size,) will go to press earlier than usual, say about the 12th of December, in order to give time to print and mail a large edition: *at least Fifteen Thousand copies.* We intend sending a copy to all nurserymen, seedsmen, etc., and hope they will feel that it is to their interest, as it undoubtedly is, to promote its circulation. They will also confer an obligation by forwarding the addresses of persons interested in horticulture, to whom specimen copies can be sent.

Advertisements in the next number will be particularly valuable, and

☞ Must reach the publisher by the 10th of December. ☜

The First volume, bound, can be furnished for one dollar and fifty cents.

OUR CLOSING CHAPTER FOR 1859.

This month closes the first term of our editorial labors, and we feel that in parting with the old year, it is right to say something to it, by way of acknowledgment of the handsome manner in which the good and hospitable old gentleman has treated us, and our infant progeny. But our heart is full, too full for utterance, and like the bashful youth in the debating club, we "rise, Mr. President, to say that we have nothing got to say."

Once, we thought we would attempt to point out some of the many novel and interesting facts that have been made known to the horticultural community, through the medium of our pages; but we remembered the fate of the unhappy painter, who, in picturing a boy carrying grapes, boasted that he represented the latter so very faithfully that the birds attempted—the cunning little rogues—to run off with the berries. Poor fellow! how discomfitted he must have been when the remark was made that the boy was worse than a scarecrow, not to have frightened the birds away! Who knows, thought we, but that by calling attention to the few good grapes we have borne, some startling defect might not be found in the presumptuous vine that bore them.

Failing in this idea, we thought of one more desperate. We will, we said, throw ourselves open to public opinion, and ask our readers, candidly, where we have succeeded, and where we have failed to effect the desired object of successful journalism. But here again the example of another old painter holds us in check. He set one of his best pictures in the market place, together with a brush and colors, and wrote beneath that he desired the beholders to mark any point they supposed of superior excellence. They did so, and by night the painter's heart was glad to find the whole canvass covered. The next day, he set up another picture of the same kind, with the request that all faulty points should be similarly marked, and lo! the whole painting was covered with daubs as it was on the day before!

And thus, dear reader of the *Gardener's Monthly*, you see our "fix." We can say nothing, ask nothing, promise nothing. But if you will be graciously pleased to accompany us through our next season's ramble, we shall do our best to interest and be useful to you, and shall be very glad of all the aid and assistance you may be able to afford us.

NOTES MADE ON RAMBLES.

The *Messrs. Hogg's, Yorkville, near New York.* Late last Fall we paid a visit to our friends at this place. Nearly seven years had elapsed since our last ramble in this locality; but we were not prepared for so great a change as it exhibited. The whole place around it is nearly built over, and but a very short time will elapse before this celebrated nursery which has been one of the cradles, so to speak, of American Gardening, will be like Floyd's, Parmentiers, and other famous places, known only by name to the oldest inhabitants.

At the time of our call, streets were being cut across and about it. The Messrs. Hogg, sons of the late Mr. Hogg, still cling to the spot, and maintain quite a select and varied stock of things. Amongst other good things we noted *Viburnum plicatum*, somewhat of a novelty in the way of hardy shrubs, and of which Mr. Hogg thinks highly. The *Akebia quinata*, a singular looking climbing vine, having beautiful flowers, Mr. H. finds quite hardy. The *Wiegelia amabilis* was in full bloom, proving a fine autumn flowering kind. Mr. H. pointed out an old, but very distinct kind of *Euonymus—E. linifolius*, of a long, loose trailing habit, which, if grafted on a strong shrubby kind, must have a very fine effect. We here saw a *Periploca* called *P. Græca*, with much broader leaves than the kind in cultivation under this name. We recognized it as what we were so taught to call it twenty years ago, and the common, not so beautiful a climber as this, is probably another species. Opposite to this, on the other side of the East River, is Astoria, Long Island, where *Mr. Isaac Buchanan* has his garden and greenhouses, aud where we noticed many matters of particular interest. The Dwarf Pear seems to be at home here, and Mr. B's specimen trees were models of health. Mr B. does one of the largest businesses in Bouquets in New York, and many of his houses are put up with that view, which also decides the kinds of plants he grows in them. We noticed that the indispensible Heliotrope he grows in the open ground, and some of the plants seemed quite old-fellows, from which, doubtless, many a dollar had been made, and many more purposed.

Other houses, however, were filled with the more rare and curious plants; one of which, for instance, was devoted to Orchideous plants, which collection comprised, we think, one of the best in the country. *Odontoglossom grande*, one of the most beautiful and rare. *Epidendrum vitellinum*, a greenhouse kind, with handsome orange flowers; and *Laelia superbiens* were in flower at this season. Another house was devoted to Ferns, and amongst them we noted the rare *Lepidophyllum*, or American Rose of Jericho, figured before in our journal. Begonia rex and other newer kinds were also here in great force.

Mr. B. has been very successful in raising double Petunias—a bed of them was then flowering in which we counted eighteen very distinct varieties. His plan is to plant the double near the single ones, and save the seed of the latter. The double flowers do not loose all their anthers, and the pollen from them gets wafted to the pistils of the single. Speaking of double Petunias, near them are six plants of Magnolias raised from seed of the *M. Soulangeana*—a sad poser to those who believe true hybrids can *never* produce perfect seeds. This kind is a hybrid, between *M. conspicua* and *M. purpurea*, raised many years ago by M. Soulange, of Paris. The seedlings favor in part, *M. conspicua* and *M. purpurea* equally, none of them being so distinct as the parent hybrid. There is a very handsome *Picea pinsapo* here about six feet high, and a Morinda Spruce of the same size, well worth any lover of evergreens going to see. Herbaceous plants are also cared for in this establishment: *Crucianella stylosa*, a pretty verbena-looking plant was in full flower. *Aquilegia glandulosa*, a white, free blooming *Zephyranthus*, and *Eucharis Amazonica*, the last, we presume, not hardy, and *Triloma Burchellii* were also growing out in this department.

Phloxes were just in their glory, and we do not wonder, by their great variety, and beautiful markings, that they are becoming so very popular in the hardy border. For hanging-baskets we noticed two very pretty plants, not now so much in cultivation for that purpose as they should be; namely, *Disandra prostrata*, and *Sibthorpia Europæa;* plants we have not before met with since our boyhood. Mr. B.'s houses are heated by Hitching's boilers, of which he speaks well.

In the open air, where it is necessary to set out in summer plants under fences, as partial shade from the sun, Mr. B. has Pear trees trained *espalier*; thus affording fruit, an additional useful purpose at the same time.

Near to this establishment is the pretty nursery of *Messrs. Bridgeman's*, whose store is in Broadway, New York. Though their collection was a miscellaneous one, and comprised every department without any seeming preponderance to any, the *Gladiolus* seemed to be particularly cared for. We counted over 70 named varieties. In a tub, a monstrous variety of fig was growing, resembling rather a small Bartlett Pear, in size, than the more usual samples seen. What is usually called in this neighbourhood *Salvia teucroides*, was here beautifully in bloom as *S. amabilis*, and perhaps more correctly. Another Salvia—*S. amplexicaulis*, with yellow flowers, we had not seen before. The collection of variegated plants was superior: *Solanum baccatum variegatum, Begonia punctata*, and *Sempervirum arboreum variegatum* were amongst the novelest to us.

In the establishment of one friend, to whom we were introduced in Astoria, we could not help noticing the magnificent specimens of White Pine, and were told that they had been made so by repeated prunings when young; the leading shoots even, having been taken out. In the same place we saw a fine fence of the old cut leaved Bramble—a variety of the *Rubus discolor*, or *fruticosus* of old English Botanists, which the gardener praised very highly for abundant bearing, and general qualities.

We have a few more items in our memory that will interest our readers, regarding the most successful Dwarf Pear Orchard of Mr. Van Deventer, the beautiful country seat of Mr. R. S. Fields, both of Princeton, New Jersey, as also the world renowned Nursery of Mr. Reid, of Elizabethtown, besides the magnificent specimens of rare Evergreens at Messrs. Landreth's Mammoth Seed Farm at Bristol, Pa., but must hold them over for our next issue.

ACKNOWLEDGEMENT.

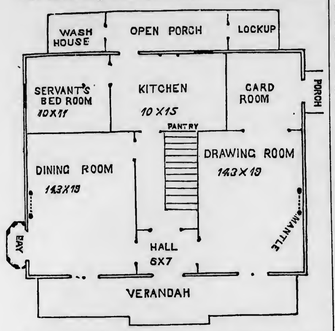
Our thanks are due to Mr. John Mish, and other friends in various parts of the country, for their kind invitation and complimentary tickets to attend their Horticultural exhibitions, and which we regret, in many instances, we could not accept for want of time.

A CHEAP COUNTRY HOUSE.

A Correspondent, J. S., of Woodbury, New Jersey, sends us a sketch of a cheap country house.

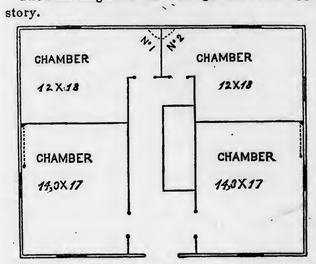
We believe the main idea was to combine cheapness with utility, and at the same time not have it so "positively ugly," as many such attempts are.

The following is the ground plan of the first floor.



We think, if the second story were a little more elevated, it would not add much more to the cost, but much improve the appearance.

The following shows the arrangement of the upper story.



Houses of moderate cost, with the combination of perfect convenience and beauty, are amongst the great wants of the public, aad we hope our able correspondents will continue the subject.

Questions and Answers.

COMMON NAMES OF PLANTS.—On reading your answer to B. F. Transon's inquiry in the October number of the *Gardener's Monthly*, I was surprised to find that you knew of no catalogue that you could recommend.

A work of the kind is very much wanted, and the sooner Mr. Buist, Mr. Barry, or yourself would commence, the better; a small work, embracing the Trees, Flowers and Shrubs most in cultivation, and not swelled out with useless matter, such as Sweet's or Donn's Catalogues.

It is time we would call things by their received names, and leave off "Sweet Absaloms" and "China Oysters." Nurserymen and Florists could also contribute much by writing the names on the labels of the plants they send out proper and plain.

JOSEPH CALDWELL.

TROY, New York.

[Common names are merely *nick* names, very convenient at times, but very erratic. Any one has the right to give such names, and a work that shall systematize them is impossible. It is not *very* hard to learn a proper name when the heart is in the subject. Miss Flora does not forget "that love of a man, Signor Giovanni Pigisquiki;" to be sure when she comes to know him as "Dear John," or plain "Jack," it looks pedantic to use the proper term.]

GREEN HOUSE, HOT HOUSE, AND STOVE.—*Clara, Bucks County, Pa.*

The Greenhouse is for those plants which come from the more temperate regions of the earth, and require mainly only to be preserved from frost. The temperature is usually maintained from 45° to 55°. The Hot-house embraces those plants which come from tropical regions, and require a temperature of from 55° to 70° or higher to do well. The Stove is nearly the same as the Hot-house; many understand by it, a plant-structure with a rather drier atmosphere than a Hot-house, but in such case the term dry stove si mostly used.

PRESERVING AND PLANTING TREE SEEDS.—*A. F. Conard.*

All these are better put in sand as early in the winter as they can be obtained, the sand slightly moistened, and the boxes set in the cellar as early in the spring as practicable; they should be sown in the open ground. It is not essential for everything to be so treated, but all do much better so treated. When left dry till spring, many kinds will not vegetate till the second, and even till the third year.

Seeds of Pines are usually kept dry, and sown as early as practicable, in frames, in spring.

Please reply in your November number to the following queries:

First.—Is it a good plan to *mow* off the *tops* of strawberry plants? If so, when; in the Spring or Fall? [Occasionally; with leafy kinds in July.]

Second.—Is it advisable to burn over a bed in the Spring. [No.]

Third.—Should the *old wood* be cut out from "Lawton Blackberry" plants as soon as done bearing? Lawton gives directions for pruning the plants for three seasons; several horticultural works say *cut out* the old wood as soon as done bearing. *Who is right?* [As soon as done bearing.]

Fourth.—When is the proper time to *shorten-in Peach trees* to promote the ripening of the wood for winter? [September.] When for pears, &c., to promote fruitfulness? [August.] To a lower growth of limbs? [Prune the strong top shoots only, in June and July.]

Fifth.—Are *Waltonian propagating cases* much used? [Not so much as they will be.] About a year ago I made one for my own use, which works admirably. By a *new* heating apparatus I compel a half-pint of water, heated by a small spirit lamp, to pass constantly through about *four quarts* and keep the whole so up as to keep the heat in the case at from 70° to 80° in *severe weather* and in *moderate weather* without any lamp or outside heat. Would there be much demand for such a case? [This is the principle of the Waltonian case.]

Sixth.—[The roses are not now for sale.]

Seventh.—Please give a select list of *Hardy Grape Vines.* [Concord, Delaware, Diana, would suit you if Isabella is too tender.]

By a reply to the foregoing, you will much oblige

H. S.

Geneseo, Illinois.

LIME RUBBISH, HARDY GRAPES, &C.—R. P. R., Quincy, Illinois.

Lime rubbish, the refuse from the plastering of a house, in the clayey soil you speak of as forming your grape border, will be beneficial if not overdone. You do not give the length of your border, or the quantity of rubbish; but if not more than the tenth part of the whole border is composed of the rubbish, we should think it to be within bounds.

If the wood of your Northern Muscadine grape ripens well in the fall, it will no doubt prove hardy with you. It is one of the hardiest of native grapes.

In your latitude, (140 miles north of Milwaukie,) we would rather transplant peaches, plums, and other fruits *before* the leaves have quite fallen. If we could not do that, we should prefer just after the frost was out of the ground in the spring.

Much obliged by your other items of interest, which we shall use in our next number.

APPLES.—A basket from D. R. Tyler, Warren, Mass., on which we will report in our next.

FONDANTE D' AUTOMNE PEAR.—An interesting article from Mr. G. B. Eaton, Buffalo, but too late for our present issue.

OTHER CORRESPONDENTS.—Several notices on hand, and valuable matter has been crowded out this month by the index.

Books, Catalogues, &c.

Landreth's Rural Register. Landreth & Sons, Phila. This useful little Annual embraces 60 pages, and together with the list and descriptions of seeds sold by the firm, embraces a calendar of operations arranged to suit every part of the Union. It is printed for gratuitous circulation, and every one should possess a copy.

W. E. Mears & Son, Milford, O. Fruit and Ornamental trees, including 10.000 *Alianthus* trees!

R. W. Hunt & Co., Galesburg, Ill. Illinois is fast becoming one of the principal Horticultural States, owing, evidently to the enterprise of the nurserymen themselves; amongst whom this firm seems quite conspicuous.

W. R. Prince & Co., Flushing, L. I., N. Y. Catalogues of foreign and native grapes. Though we cannot subscribe to some of Mr. Prince's views as stated in the catalogue, we look on it as a masterpiece in its way, and do not think any grape grower who wishes to be up to the times, can afford to be without it.

John Saul, Washington, D. C. Catalogue of roses. We notice many rare kinds amongst them.

Casper Hiller, Conestoga, Pa. Fruit trees, &c.

R. White & Co., Newark, N. Y. Trade list.

Illustrated Annual Register. Albany, Luther Tucker & Son. Compiled by J. J. Thomas. This is the sixth annual appearance of this cheap little volume.

The publisher announces that it is "not made up from any other periodical or work, but its contents are prepared by the author especially and originally for its pages." But this we should class amongst the least of its merits, for it is not only "original," but *valuable.* The chapter on ornamental planting is very suggestive, and the chapter on fruits and fruit culture is alone worth the price of the work, without taking into account the numerous wood cuts, with which the little volume is illustrated. In the path that he has marked out for himself, Mr. Thomas has proceeded with his usual ability, and we cordially recommend it to the perusal of all interested in rural affairs.

D. Redmond, Augusta, Ga. Catalogue of Grape Vines. Mr. Redmond confirms the good accounts we have heard of the *Venango*, and has in his list the *Mary Isabel*, "superior to and earlier than *Isabella.*"

Lewis Ellsworth & Co., Naperville, Ill. Dahlias, Verbenas, Fuchsias, &c. About 140 varieties of Dahlias are described, with other things.

Anthony Pfeiffer, Cincinnati, O. Grape Catalogue. Foreign and native, dwarf pears, small fruits, and other stock is also offered in large quantities.

W. P. Sheppard, New York. Circular of horticultural agency, with items of universal interest in the horticultural line.

J. W. Briggs, Macedon Centre, N. Y. Circular of Strawberries. Mr. B. sends plants of most of the new varieties by mail, and those who would see how successfully he does it, should get one of his circulars.

Alan W. Corson, Plymouth Meeting, Pa. Forest and Ornamental trees. Friend Corson is one of our best botanical nurserymen, and his collection of trees and shrubs is one of the most complete in the United States, perhaps of any nursery in the world.

Reports of Kew Gardens. We are indebted to the courtesy of Sir W. Jackson Hooker, the director of this celebrated establishment, which has reached so high a degree of popularity and usefulness under his

management, for his recent pamphlet, published by order of the British Parliament, on the history and present condition of the gardens, and from which we shall give our readers many items of interest as opportunity offers.

Joshua Pierce, Washington, D. C. Circular of Small Fruits.

John Rutter, West Chester, Pa. Abridged Catalogue—Grapes and Roses figure extensively.

Levi Denning, Mount Pierce, Va. Circular of Fruits, &c.

White & Prentice, Toledo, O. Descriptive Catalogue Fruit and Ornamentals.

William Allen, Jeffersontown, Ky. Fruit, Ornamental, &c.

T. G. Yeomans, Walworth, N. Y. Fruits and Ornamentals. Sheet Catalogue.

F. Trowbridge & Co., New Haven, Conn. Principally Small Fruits.

New or Rare Plants.

Lemonia spectabilis. *Lindl.* Nat. ord., *Rutaceæ.* Native of Cuba.—Stove evergreen shrub, of somewhat irregular habit. Flowers axillary and terminal, with two or three flowers upon each peduncle. Corolla tubular, composed of five elliptical lobes, the three lower of which are largest, rosy purple.

A very useful plant, blooming in June and July, not profusely, but continually and regularly. It is but little known in gardens, although it has been in cultivation for seventeen or eighteen years. A compost of about three parts good fibrous loam, and one part of peat, with a free mixture of sand, is an excellent soil for it. Cuttings root freely enough in the usual way for stove plants.—*Cottage Gardener.*

Pavetta Caffra. *Thunb.* Nat. ord., *Cinchonaceæ.* Native of the Cape of Good Hope.—Stove evergreen of excellent, compact habit. Corolla white.

A most useful stove plant, blooming in June and July very freely. It bears considerable resemblance to *Ixora*, to which it is nearly allied. It is not so partial to bottom heat as *Ixora*, but in other respects it requires the same treatment. Good loam and peat, with plenty of sharp sand form an excellent compost for it, and cuttings of the young wood in spring root readily.—*Cottage Gardener.*

Blaberopus veneatus. *Dec.* Nat. ord., *Apocynaceæ.* Native of the East Indies.—A branching, stove evergreen, growing to the height of about six feet. Tube of the corolla an inch or more long, narrow, and swelling slightly towards the limb, which is composed of five, deeply cut, twisted, lanceolate, reflexed lobes, pure white; throat narrow, somewhat hairy.

An excellent stove plant, and well deserving a place in choice collections. The flowers, which are always profuse, and also fragrant; and though not lasting individually, there is a long succession of them in June and July. Turfy loam and peat, with plenty of sand, make a very suitable soil for this plant; and cuttings of moderately-ripened shoots root moderately free.—S. G. W.

Saponaria atocoides. Native of Syria.—It has a stem shrubby to the base, bending and elevating themselves a little towards the sun. The flowers are in corymbs and of a beautiful rose color. The *Revue Horticole* says it grows freely in the open air, flowering in July, freely. It will, doubtless, make a good border plant.

New and Rare Fruits.

Lenoir and Devereaux Grape.—Mr. W. N. White shows in the *Horticulturist*, that these two grapes are identical. The Lenoir, he adds, has been found wild in three different localities; he speaks highly of it, but thinks the Delaware a trifle earlier in Athens, Georgia.

THE "LONG GRAPE."

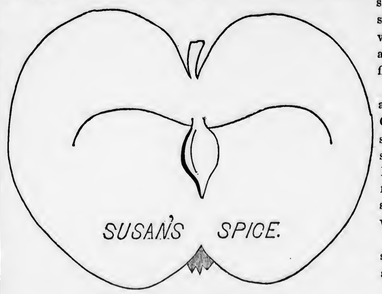
Amongst a quantity of Grapes exhibited by S. Miller, of Lebanon, this one struck us favorably by its handsome appearance. It was not fully ripe, and we cannot recommend it as first rate until further experience; but we shall be mistaken if it do not prove worthy of being classed with "the best."

It is nearly allied to the Herbemont, but the berries are larger, and of the color of the Delaware—chocolate brown.

We know nothing further of its history than that Mr. Miller fruited it from a vine obtained from an eye received from Mr. Charles Downing, and which, grafted into an old vine, has this season borne one bushel of fruit. Mr. Miller remarked to us that the foliage and habit were very different from the Herbemont, and that it altogether seemed more hardy than many of the southern vines.

SUSAN'S SPICE APPLE.

Fruit medium, compressed, stalk very short, about ½ an inch long, in a deep cavity; skin thin, smooth and glossy, light crimson on one side, deep crimson on the other, speckled with fawn colored dots on the sunny side. Calyx small, set in a regular, smooth, and shallow basin. Flesh yellowish white, stained occasionally with red, mellow and juicy, with a very pleasant aromatic flavor. October 31st.



We have received the above, under the above name, from Mr. B.L. Ryder, of Franklin County, Pa., and consider it one of the handsomest and best apples we have tasted this season. It has some resemblance to the Detroit of Western New York, but is smaller, flatter, and a much better apple in every respect. We sent a specimen to Dr. Eshlemann, who agrees with us as to its excellent quality.

Mr. Ryder states that it is an undoubted seedling of that locality, and is an abundant and regular bearer.

North American Best Apple is described by Mr. Clarke, of New Haven, as blending the qualities of Early Bough and Early Harvest, is an early bearer, large, fair, flattish conical, skin smooth, light or greenish yellow, red blush in the sun, slightly subacid, high flavor, very tender and juicy, and fine for dessert or cooking.—*Horticulturist.*

Obituary.

MR. JOHN SAYERS,

Of the Cottage Garden Nurseries, Cincinnati.

On the 22nd of September, Mr. S. was washed overboard from the Steamer Bavaria, during the awful storm of that date, while on a visit to Europe.

Mr. S. was an Englishman by birth, and was nearly 50 years of age. He came to this country when about 21 years old, and with no capital, but an excellent knowledge of his business, energy and perseverence, acquired considerable property, and obtained much influence with his fellow-nurserymen and acquaintances, for his intelligence and high sense of honor.

Mr. Sayer's life was not alone devoted to mere money-making; a contemporary truly remarks of him, that another leading object of his existence was to leave the world better than he found it; in this he succeeded also, and thousands, whose hearts have been warmed by the geniality of his disposition, and encouraged by his advice and example, will hold his memory in affectionate regard now that he himself has passed away from them.

Mr. S.'s mother is still living in New York, and his wife and six children still reside at Cincinnati.

DR. THOMAS HORSFIELD,

A Native of Pennsylvania, died on the 24th of July, in London.

He, when still young, emigrated to the Island of Java, where he remained sixteen years, pursuing his favorite study, the Natural Sciences, and where he probably left no spot unvisited. Thence he went to Banca, to see the famous tin works; thence to Sumatra, thence to England,—1818—where, up to his death, in his Eighty-sixth year he was Superintendent of the East India Museum.

Dr. Horsfield enjoyed the general esteem of his fellow men, and science owes him for many a valuable addition. We translate the above from *Bonplandia.* Dr. Horsfield was quite distinguished as a botanist, and the great traveller Blume has honored him by naming a tribe of Javanese herbaceous plants after him. Do any of our readers know where in Pennsylvania Dr. H. was born.

ARTHUR HENFREY,

Professor of Botany at King's College, London. His physiological researches in the realm of vegetation deserve the warmest praise. Shortly before his death he made the fine discovery regarding the points of the young roots, on which the *Gardener's Chronicle* enlarges in its August number. His merit is not less great for translating into English the works of the prominent botanists of Germany, such as Mohl, Braun, Schleiden. Whoever knows how difficult it is to render German terms for vegetable physiology into equivalent English ones will appreciate how well he generally overcame the obstacle, and how much he thus has done towards cosmopolitanizing botanical science. The well known acanthaceous stove plant *Henfreya scandens*, was named in his honor.

DAVID THOMAS,

At Union Springs, New York, aged 84. Mr. T. was well known as a horticultural and agricultural writer, and was distinguished in several branches of science.

Originally he followed the profession of an engineer, but for some years past he has been living in retirement on his farm at Greatfield.

The *Country Gentleman*, from which we condense the above, adds, that his private life was no less distinguished by his virtues, than his public was by its usefulness.

DR. JOHN P. BARRATT,

A well-known horticulturist in the Abbeville District, S. C., and distinguished as a contributor to Botanical, Geological and Ornithological science, is amongst the recently deceased. He was a native of England, but lived the greater part of his life in this country.

As we were about sending to press, a friend has furnished us with a portrait of Mr. Nuttall, which we will engrave, and reserve the notice of his life we had prepared, to accompany it.

Domestic Intelligence.

Impositions.—The *Southern Homestead* says a French itinerant in that neighborhood sold bulbs of *the squill* for the magnificent *Brunswigia Josephinæ*, or Josephine Lily; and roots of the *Columbine* or of a *Thalictrum*—a common weed—for the British Queen Strawberry. Served them right, ignorance of a strawberry plant in a purchaser is inexcusable. We know a party who "would not be humbugged" by a respectable Philadelphia Seedsman two years ago, by "paying two dollars for a small Rebecca Grape," and so went to the market and bought "a fine *four* year old" plant for 37 cents. Now that his "Rebecca" has proved a "fox," he complains bitterly of the "frauds of nurserymen." Moral.—Read the papers; you will not then buy weeds for strawberry plants, or four year old *vines*, from one but two years introduced.

Bliss's New Store, in Springfield Mass., the *New York Tribune* calls a *Palace of flowers.* It is said to be a magnificent building, and is compared to Jayne's immense structure in Philadelphia, and Townsend's celebrated Sarsaparilla affair, in New York. We never could see why as much might not be made of posies as pills, and are pleased that our friend Bliss has so happily demonstrated it.

The Chinese Sugar Cane, is spoken highly of by most of our Western exchanges. Of Preble county, Ohio, the *Eaton Register* says:

The Mill of Messrs. Day & Brother, at this place, pressed out a fraction over 9,000 gallons of juice. From the best information we can get, there were, the past season, twelve Mills at work in the county. Now, taking the Mill at this place as a basis, and allowing 9,000 gallons as the average for each Mill, (and we consider that a fair estimate,) would give a total of 108,000 gallons of juice pressed out in the country.

In a pecuniary point of view, even this experimental crop yields a sum of no mean importance. The molasses sells readily in this market at 50 cents per gallon; and we presume the entire crop of this year could be easily sold at that price. Now, 12,000 gallons, at 50c. per gallon, would foot up the snug little sum of $6,000! as our county's revenue on an experimental crop of Sugar Cane.

The New Japan Wax Tree—*Rhus succedaneum.* In a recent number we gave a short account of this recent introduction. The following, we have since met with in an exchange, which gives the exact account of its introduction.

"*Vegetable-Wax Tree—Japan.*

In the New York Agricultural Society's Journal, the Secretary notices the receipt of specimens of the wax and seeds of the tree from which the wax is made, from Hon. P. M. Wentmore of New York, and says: 'We have placed the seeds in the care of one of our best nurserymen, in hopes they may be made to grow. The importance of this acquisition, as will be seen from the annexed article from the American Consul, London, to the Secretary of State, can scarcely be too highly appreciated:

Consulate of the United States, London, April 9, 1859,

Sir: I am pleased to be able to add another evidence of the forecast, energy, and enterprise, of our commercial marine, in the arrival of the ship Florence, of Boston. Captain Dumaresq, at this port, from Nagasaki, in Japan, from whence she sailed on the seventeenth of December last, with a cargo consisting chiefly of vegetable-wax. This arrival from Japan is the first that has ever occured in any English port, and is gratifying to state that there is every probability of Captain Dumaresq realizing cent per cent upon the whole of his outlay. The wax, and the berry or fruit producing it, being previously unknown in this country, and deeming it probable that it would be an equal novelty at your department, I take the liberty of sending to your address, under separate covers, specimens of the wax and berry; the latter growing in clusters, similar to grape clusters, on trees varying from fifteen to twenty-five feet in height. The cost of the wax delivered in London is about eight dollars the hundred weight. The experience of Captain Dumaresq proves that the vegetable wax bears without softening a greater degree of atmospheric heat than any other wax he has experience of. The Japanese mode of preparation of the wax is said to be very rude; the berries being first washed by rude appliances, then boiled, when it is formed into cakes of thirty pounds, and subsequently dried in the sun. Should the labor not be too costly, there is every probability that the tree might be successfully raised and the wax manufactured in the Southern States.

I have the honor to be, sir, very respectfully, your obedient servant. Robert C. Campbell.

Hon. Lewis Cass, Secretary of State.

Tree Labels.—As the season for transplanting trees in their greatest quantities is approaching, we will give to the readers of the *Artisan* a description of the most simple and yet the most durable label for their trees that we have ever seen presented. And as we have obtained our information from Mr. Peticolas, the proprietor of the Mt. Carmel Nurseries, near this city, and he has had such labels in use for many years, with the most perfect success, we think his plan must be valuable.

Take for the label small slips of zinc (if it has been exposed to the weather some time it will be so much the better,) and write the names upon them with a common black lead pencil, then fasten them to the trees with fine copper wire, always giving sufficient space in the loop for the tree to grow. Such labels will, for years be plainly readable.—*Scientific Artisan.*

Horticultural Progress in the South.—The *American Cotton Planter* says, in 1850 they had but eight nurserymen in the whole South, occupying altogether but fifty acres—now it enumerates some sixty, many of them occupying from twenty-five to one hundred acres each.

Pear Growing in the South.—A Fruit Grower, near Vicksburg, Miss., says the *Homestead* sold the produce of 2¼ acres, of 250 trees for $5000. They brought about $5 33 per bushel, which gives an average of over 9 bushels per tree. Principally Bartletts and Beurre Diel. Not a bad crop.

Evergreens Hardy near Boston.—*Hovey's Magazine* says the following have stood out at Mr. Hunnewell's:—Picea pinsapo; P. Nordmanniana; Pinus ponderosa; P. Lambertiana; P. Beardsleyii; Abies Smithiana; A. Nobilis; Thujiopsis borealis; Cephalotaxus fortunii. The Washington and Deodar cedars were slightly injured.

Chorlton's Strawberry.—Mr. Chorlton says, in the *Country Gentlemen*, that there is a spurious kind in circulation. Mr. Decker, whose advertisement appeared in our paper, he says is the only person to whom he has sold them.

Foreign Intelligence.

THE LONDON HORTICULTURAL SOCIETY.

[*From a German point of view.*]

We gather the following from the *Bonplandia*:—This Society has been in a financial decline for many years. Selling their valuable library, their fine Herbarium, and part even of their live plants, proved but temporary expedients. Their Chiswick fetes, so famous, both for the objects looked at, as the subjects looking on, were continual failures of late years, owing to Jupiter Pluvius, who flooded, pertinaciously and regularly, the gardens, the tents, plants, &c. Move the exhibition from a fine garden, into some west-end rooms, was not to be thought of. Who would risk his plants in an atmosphere vitiated by gas? But

"wenn die noth um hocksten,
ist die hulfe am nachsten."

(When need is highest, aid is nighest.) And it came about in this way, that in the year 1851 the great Industrial Exhibition was held, that this Exhibition paid a handsome surplus above expenses, and that a fine lot of ground was bought for it in Kensington, closed to Hyde Park. This spot, in a few years, will be in the centre of fashionable life in London, and rise immensely in value. Of this piece of ground, twenty acres are to be leased to the Horticultural Society. What sort of an affair there will result from it, we can guess at when we know that one-half of a million of dollars will be spent on it; the trustees of the estate, and the society sharing equally the expense We may reasonably look for something astounding, as no doubt the best talent of England and Europe will be brought into play where so much fame and so much pecuniary compension may be earned. It is not often that half a million of dollars is spent on *a garden*.

The *Bonplandia*, from which we mainly gather these facts, adds that the society intends raising its quarter million by subscriptions, the Royal Family having already subscribed ten thousand dollars for it. That the current expenses will be defrayed by the yearly contributions of members and the admittance fees taken of the general public. Thus London will secure within easy reach of its citizens, a wonderful establishment. But the whole world of science will benefit quite as well, inasmuch as this Society in its former prosperous days, sent out such travellers as Drummond, Douglas, Hartweg and others in search of new plants, spent thousands of dollars in premiums, etc., and as it is to be hoped that the new move will bring with it a return of these flourishing times.

High Bottom Heat.—Mr. Ayers says in the *Gardener's Chronicle* that he never cares for a higher temperature than 80°. He is one of the first of British Gardeners.

Plants against Insects—The *Bonplandia* says, *Lepidium ruderale*, dried and pulverized, is a popular powder in Dalmatea.

Monster Quinces—The *Bonplandia* says, at the foot of Mount Vesuvius, they may be gathered of three pounds weight.

The Seeds of Datura alba, when burnt, causes a vapor which stupifies like chloroform. It is used in China by burglars, says the *Trauendorffer Blatter*.

The New French Wheelbarrow has two wheels in front instead of two legs, which the workman pushes instead of lifts.

A New Treatise on Grafting, by the Abbe Dupuy, says the *Revue Horticole*, is now appearing in Paris.

Pot Fruits in France—From an account of a Paris exhibition in the *Cottage Gardener*, American Cultivators can beat the French, in this department, —"hollow."

Collection of Camellias—M. Henry Courtois, of Paris, says *Revue Horticole* contains 1000 varieties; amongst them, some that belonged to the Empress Josephine.

Foreign Correspondence.

From our English Correspondent.

Fine foliaged and variegated plants have become generally cultivated, and of late years have taken a high stand in our collections. They possess the merit of being gay at all seasons, and are of easy management.

These kinds of plants are generally stove plants, requiring a high temperature, and abundance of moisture to properly develope these beauties. If pushed forward in early Spring, the wood and leaves well hardened, they will then stand the cool temperature of the greenhouse or conservatory throughout the summer, where they are more pleasantly accessible to inspection.

I send you a list of some of the finest varieties, with notes as to their propagation and culture.

Cyanophyllum magnificum—this is undoubtedly the most handsome of all fine foliage plants; its sturdy upright habit of growth and beautiful entire cordate accuminate leaves, which, when well grown, measure as much as 18 by 30 inches, prettily shaded and marked of a fine velvety appearance, propagated from cuttings of eyes of well ripened wood, or suckers obtained by cutting down to near the surface; these should be taken with a heel attached, planted in sandy peat, and plunged in a bottom heat of 85° or 90°. Soil best adapted for growing in is equal parts sandy peat, loam and leaf mold.

Bœhmeria argentea—a new, fine foliaged stove plant of erect habit of growth, leaves obtusely lanceolate ovate, about six inches long, colour light green shaded, with silvery markings, requires similar treatment to the above.

Pavetta Borbonica—elegant dark green foliage plant, beautifully mottled and shaded with pale green; the midrib is very conspicuous, being of a bright salmon red; strikes freely from cuttings of half ripened wood, grown in sandy peat and leaf mold.

Aralia papyrifera,—(Chinese rice paper plant.) leaves obtusely palmate, pubescent habit erect, stout, propagated from cuttings and eyes, or divisions of roots, grows best in sandy peat, with a little well decayed manure; this, and many plants of a similar nature grow best if placed upon an inverted pot, in a pan of water to insure a constant moisture to the roots without the soil becoming saturated and soured.

Aralia leiophyllum—similar to the above, with very fine leaves.

Dracænas ferrea, terminalis, and *nobilis*—these are very conspicuous and highly ornamental plants in a collection on account of their highly colored and ornamental foliage, being crimson or crimson shaded with purple, from nine to eighteen inches long, lanceolate. *D. nobilis* is rather dwarf in growth, the other two are inclined to grow rather tall; when their tuft-like heads are seen to advantage towering above other plants. *D. Draco*, or the Dragon's-blood tree is very graceful, but the leaves are green; when these become too tall they may easily be shortened to any required length by making an incision all round the stem, at the required height, and tying damp moss round the incision, when it will shortly make roots, and may be cut off and planted, no matter how old or large the plant, the operation is always safe and certain. Screw Pines, etc., may be treated with equal success; they propagate readily from cuttings of mature wood, and portions of roots, should be grown in equal parts leaf mold, loam and peat.

Rhopala Corcovadensis, Jonghii, and *Organensis*—these are very beautiful Proteaceous plants, with long pinnatified leaves of a bright redish brown, pinnea deeply serrated, angular habit, very ornamental, stout, erect, indispensible in every select collection, when they improve in appearance with age when well grown, strikes freely from cuttings of young half ripened wood from side shoots if possible; these three are the most distinct, differing only in the shape and size of pinnea. I will here again state what I have already advanced in a recent article on propagation from cuttings, namely, the best way to increase this tribe and character of plants is to cut down and introduce into strong heat an old plant; this will throw out lateral shoots or suckers; when about six inches long, more or less, and not too soft, take them off with a heel or piece of the old bark attached, pot in equal parts sand and peat, and plunge the rim of pot in the propagating pit, cover with bell glass. Under this treatment I have, in general, found all such plants, hitherto considered difficult, to root free as geraniums; in fact, this is the one great secret in propagation. I have the wood grown preparatory for cuttings; without this all is chance. When this fact becomes more generally practised, such precious gems as Amherstias, Browneas, &c., will become comparatively cheap, and far better constituted.

Tupidanthus calyparalus—a rather robust growing plant with woody stem and spreading branches, hardy palmated leaves on long foot stalks; propagated from cuttings and eyes, soil turfy, loam and leaf mold. This is a giant Ivywort, the flowers are produced immediately below the leaves in loose umbels, the individual flowers are surmounted with an extinguisher-like appearance, which falls away on becoming matured, hence its specific name.

Philodendron pertusum (*Monstrosa delicosa*) belongs to the aracacea, stem fleshy, flowers, spotted white, remarkably handsome, which is succeeded by a most delicious fruit, quite rivaling the Pine Apple in flavor, but the most interesting part of this plant is its peculiar large, obtuse, ovate leaves, singularly punctured with large holes over the entire surface; propagates freely from cuttings, and off-sets should be grown in peaty loam, in a warm, moist atmosphere.

VARIEGATED FOLIAGE PLANTS.

Caladium argyrites—a very pretty little plant, habit quite dwarf, not growing more than six to nine inches high, it has the rare merit of producing numerous suckers, and soon fills a small pot, when nothing can possibly be prettier, although it is the smallest species of the ferns, it is by far the gayest; color of the leaf, light green, covered over the surface are numerous clear white spots and markings.

Caladium chantini is a very beautiful plant, growing from twelve to eighteen inches high, leaves moderately large, prettily marked with white and rose colored spots.

Caladium bicolor picturatum—leaves large, with pale green and crimson markings.

Caladium bicolor splendens—leaves very large, pale green, with crimson markings.

Caladium pictum—leaves rather small, lobes acutely angled, marked with white lines down the midribs; the whole of the true Caladiums are well worthy of cultivation; the above five I consider the most distinct and best; the great failing in this plant is, they die down in winter season; being tuberous rooted, they increase rapidly from divisions; soil most suitable is well decayed manure, peat and loam in equal quantities for strong plants; for small roots use two parts peat and one of loam.

Croton discolor—a stove shrub, having dark green foliage, covered with numerous golden yellow spots well defined.

Croton pictum—similar to the above, but having some rose colored markings, interspersed with the yellow spots which are more numerous and smaller; roots freely from cuttings, thrives well in sandy peat and leaf mold; a little care should be bestowed in selecting only such cuttings as are well variegated: with this attention, increasing beauty will be gained. The stock of these in the Botanical Gardens, Kew, are the best in the country through this attention.

Cissus discolor, (Marmorea.)—beautiful variegated stove climber, with entire cordate leaves, splendidly marked and shaded with rich velvety green, purple and white markings; should be treated as a young vine, to which it is closely allied; grown in sandy peat and leaf soil, with abundance of warmth and moisture; it is seen to best advantage when trained upon a flat trellis; increases readily from cuttings under a bell glass.

Aphelandra Leopoldii—this does not thrive well in all localities, and is considered rather difficult to grow well. I have met with some fine specimens, and conclude that it only needs liberal treatment as regards heat and moisture; it is true, when it once receives a check, it seldom recovers again. Healthy cuttings taken from the top of leading shoots root freely in a high temperature; a mixture of turfy loam, peat and silver sands will grow it well, if plunged in bottom heat, and frequently supplied with weak manure-water; it will well recompense for a little extra trouble bestowed upon it.

Dieffenbachia seguina picta—the spotted dumb cane, large obtuse ovate leaves, prettily spotted, being white upon light green surface; a line of white running down the centre of each leaf; a very showy plant, propagates freely from cuttings and divisions, grown in sandy peat, plentifully supplied with moisture.

Begonias Argentea, Isis, Madame Wagner, Rex, Madame Alwardt, Newdosa, Victoria, and *argentea guttata*; eseth are the newest, and best of this tribe, of which Rex is the type, all of which are first rate.

Anæctochilus argenteas, Pictus, Lobbii, Lowii, Pictus, or Xanthophilus, and *Vittatus*; this list forms a very pretty collection of moderate priced, there are others which claim some merit, but the high prices they are charged, exclude them from general cultivation.

Coleus Blumei or Plectanthrus picta—a very pretty, quick growing, soft-woodèd stove plant, with light green foliage, spotted with brownish purple; strikes freely from cuttings and grows in rich loam like a weed.

Dioscorea discolor—variegated yam, a free growing bulbous rooted climber, with beautifully mottled cordate leaves, propagate from divisions of roots and cuttings, should be grown in rich peaty soil, trained on wires.

Maranta alba lineata, and Vittata—two dwarf growing specimens, about nine inches high, with pretty striata obovate leaves.

M. Warczewicsii and Zebrina—these grow from three to four feet high, leaves large, beautifully shaded and highly ornamental; all propagate freely from division and portions of roots. The two latter have been found to grow well in this country as bedding plants, but the foliage is too large and tender to withstand our cold cutting winds; in a conservatory they are charming.

Graptophyllum pictum—a shrubby growing plant, with stem transparent as a balsam, the leaves are beautifully marked down the centre with clear golden yellow spots; propagate from cuttings.

Godyera discolor—a very neat growing dwarf orchidæa plant, with white flower and neat velvety foliage; should be grown in rough peat and leaf mold, propagates from cuttings and divisions.

Sonerilla margaritacea—pretty dwarf plant, with neatly spotted leaves, requires abundance of heat to grow it well, in peaty soil.

Hydrangea Japonica variegata—a very useful variegated green-house plant, easily cultivated and stands well.

Pandanus javanicus—variegated species of Pine, with striped leaves.

Hoya carnosa variegata—pretty climbing wax flower plants, with good variegated leaves, very useful when well grown.

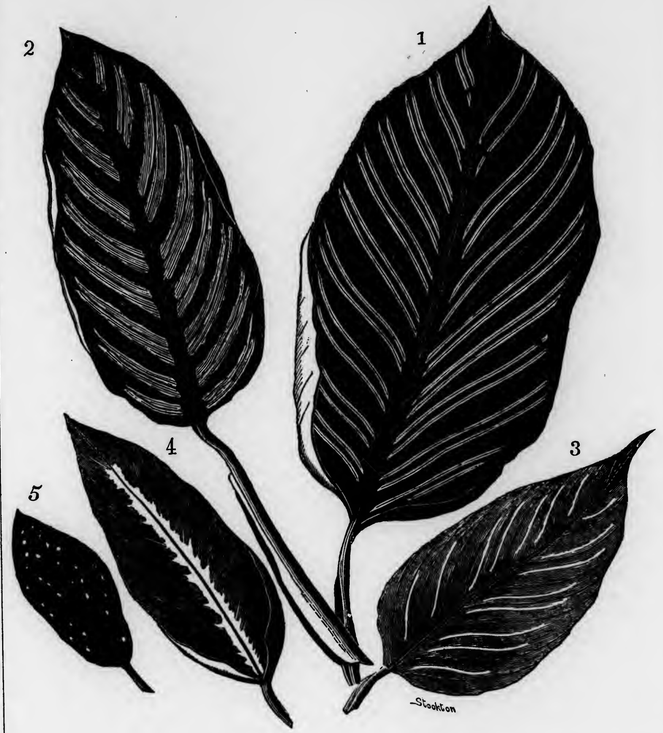
Nukanio speciosa—a good green-house climber, with scissor-like leaves, requires sandy loam and peat.

Yucca filamentosa variegata—very showy striped-leaf plant.

Acer Negundo variegata—a splendid hardy tree, well variegated, and one that will always find a place amongst variegated trees.

Arundo Donax variegata—variegated bambo-like plant, pretty in pots.

Farfugium grande, or Chinese colt's foot, beautifully spotted leaves, quite hardy, but becomes green when planted out, propagates from divisions of the roots, thrives best in strong yellow loam.



[To accompany this very instructive letter of our excellent correspondent, we have had the following drawings made from nature, of the leaves of four of the finest varieties of Marantas, together with a leaf of the lovely little Sonerilla margaritacea.—Ed.] *Fig.* 1 is a leaf of M. Regalis.—Leaves dark green with red stripes, about 7 inches long, under side dark purple, splendid. *Fig.* 2, M. vittata.—Leaves light green, with greenish white stripes, 5 to 6 inches long, the foot stalks very long. *Fig.* 3, M. alba lineata.—Leaves dark green with pure white stripes, about 3½ inches long, dwarf habit, under side of leaf dark purple. *Fig.* 4, M. micans.—Very dwarf habit, leaves dark green with stripe of white along the midrib, under side light purple. *Fig.* 5, Sonerilla margaritacea.—Leaf dark green, shaded with scarlet, spotted with pure white, under side bright claret blotches, a lovely plant.

From our Occasional French Correspondent.

Paris, October 13th, 1859.

Friend Meehan:—There is nothing stirring here just now that might interest the gardening public particularly. Nature is on her death-bed, to revive again through next spring, with new youth and new smiles. And as to scientific matters, I am not up enough in "larning" to wander through cold, warm, hot, and very hot houses, and there to inhale, and to perspire again knowledge of interest for your readers. Your regular correspondents here will, no doubt, supply it.

The weather is fine; in French it is *ravishing*, "ravissant," and so, let us take a walk to the Tuilleries' gardens. They look—as gardens look in October. By the bye, a good many hollyhocks there; a most picturesque plant, only place it right, and in lots; much neglected with us at home I know, yet to my taste superior to dahlias, in port, habit and cheerfulness of countenance. Don't you smell France in these hyperbolical terms? Well, don't fear, both my mother, my aunt, and Mrs. Partington will both know me when I come home. Know hollyhocks, Tuileries' gardens, Champs Elysées, Bois de Boulogne? I know you do, and so does every one of your readers, more or less, by the action of their own or their friends' eyes, all *connu*? Well, I will take you away down the Bois to the *Pre Catelan*, Catelan meadow, rather a new institution. Know that too? No, *not exactly*, which generally, I believe, amounts

to *not at all, sir*. Well, the Pré Catelan is half a dozen London Vauxhalls, Cremorne Gardens, New York St. John's Woods, Palace Gardens, etc., thrown together in a vast heap. Music, instrumental, vocal, military, concert; dancing by the public on the lawn, on pummiced board, and by the artists on ropes. Theatre, by actors wooden, fantoccini, and live; farce, operettas, circus-riding, fire works, and whatever else you can fancy as represented by the following three—etc., etc., etc. Still, as I am at it, you can not fancy the meeting of Henry VIII, of England, and of Francis I. of France, on the field of the cloth of gold, at 11 o'clock at night, executed by three hundred *illuminated* ladies and gentlemen, on three hundred *illuminated* horses. Get out, you say! No sir, I'll get in. If there is in this statement anything at all that I have to allow any discount on, it is the ladies and gentlemen, and if you will only consider them men and women, I will not say another word in their favor. The rest is true, and to let you at once into the secret, the illumination is brought about by these persons carrying under their cavalier dress, and the horses under their caparisoning, each of them, from four to eight lanterns, the ladies carry eight as they can afford more accommodation. You do not see the lanterns till you look very close, but they throw light round the contour of horse and rider. The arrangement of the lights and their strapping, that is the art of that special *artiste*. I say "artist," here in France we have no artificers, all are artists, though they may be artists only in hair, or in corns, or in sausages.

I am rambling, so I am; well then, let us ramble together. Let us ramble to the Theatre des fleurs. At last you will give me credit that I am coming into your legitimate field. This flowery theatre is unfortunately not portable, and cannot be sent by rail, or ship, otherwise a fortune could be made by showing it to your readers, and the rest of mankind for a small consideration. The Great Eastern could not be retailed at a greater profit than this flowery theatre. Pit, stalls, boxes, orchestra seats, prosceniums, stage, scenery, all but the foot-lights and the chandelier, which latter does not exist, all made by nature, out of nature, or rather in spite of nature; for nature has been coaxed into all these forms, perhaps a little violently, but then it is night, you know, and no matter details, if the effect is brought out. Effect! yes sir, it is not in France alone where everything is done with a single eye to effect; people do that also in my native State and the adjoining thirty States. But back into the legitimate. The pit is a lawn with the known benches, minus the news boys; the boxes are arbors, roses, vines, climbers, trimmed in the style of opera boxes; the ceiling is the sky; the stage, ah! the stage. I wish I could properly describe it. It has but one scene, of course; foreground, a level piece; first back ground a gentle hill, a sinuous path leading over a bridge, planted with shrubbery; general background, bolder hills, rocks, planted with trees. A cascade leaps from the rocks, till it passes away under the bridge. Foot-lights which you see, side-lights which you don't see; the orchestra below as in a regular theatre. Everything looking as natural as nature, even to the thirty-six boys and girls, which, at the preconcerted whizz of the fiddles, phoo-oo of the flutes, bam of the big drums, and so on, come simperly down the hills as if not at all aware of the audience and your correspondent, and begin to hop and to jump ballet. Even a drop curtain is there, only it does not drop, but unaccountably—reversed action of iron rolling shutters—winds itself up from below, a curtain of roses, artificial ones, stuck so close that you don't see what they stick on. My gardener's eye, the right one, and my critic's eye, which is universally the left one, detected a few failures in trees and bushes, but they did not show to the public at large, and the effect of the whole was most surprising, and this time we may properly say *ravissant*.

Artificial landscape gardening can not very well go further. The idea, however, of a play with natural scenery is not a new one. The duke and duchess of Saxe Weimar, in Germany, of the beginning of this century, so justly celebrated for the honor and protection they gave to art and poetry, to poets and artists, had in their gardens a spot, *eine parthie*, seemingly intended by nature as a stage—a running brook, a narrow meadow, wooded hills sloping down to it, view closed by trees.

What more natural for nature than to suggest its mimicry, the play. Plays were written for it, even the great Goethe wrote some, stimulated by the désire of amusing so select an audience as moved at that court.

Caught rambling again? Back into the legitimate. Not only (as in the play I wind off with a surprising *denouement*) the theatre is "made" nature, but the whole establishment, le Pré Catelan, covering so and so many acres, (a good many, next time how many) is "made" nature. Three or four years ago, a meadow, bare and flat as the palm of your hand, is now park and garden, lake and fountain, hill and dale. In daylight, my left eye sees a little premature age in these venerable new trees, but honor to whom honor is due. Better nature cannot be made at shorter notice.

Cordially yours,

M.

Horticultural Societies.

[Our space will not generally allow of our giving a full list of premiums awarded by our Societies, and we shall usually confine ourselves to giving the names of those who obtain the First and Largest Premiums.]

PENNSYLVANIA HORTICULTURAL SOCIETY.

OCTOBER.

The stated meeting and display for October, was held on Tuesday evening, at the Society's Rooms in Concert Hall. As is usually the case, the display at the October meeting was not extensive, though the plants and fruits on the table were excellent. There were several new members elected and some proposed. There was a very good collection of well grown plants from John Pollock, gardener to James Dundas, Esq., who also presented a new plant, first time shown, *Begonia cinnabarina hybrida;* two new plants, *Asplenum Nidus Avis*, *Caladium bicolor picturatum*, from Chas. B. Sutherland, gardener to B. A. Fahnestock, Esq.; *Begonia granilis*, *Lantana Violacea*, *L. Bonte de Neige*, *L. Marquis de Oporto*, new plants from Robert Buist, who also had a collection of plants; James Eadie, gardener to Dr. James Rush, had a most beautiful grown specimen plant, Chrysanthemum Rosetta; Mr. Alexander Parker, a collection of Chrysanthemums; Joseph Cook, a pair of beautifully arranged hand bouquets; John A. Goehring, a handsome design and basket of cut flowers, and Robert Kilvington, a handsome design.

Mr. Buist exhibited a new grape—Frogmore seedling—very good; James Matheson, gardener to E. Yarnall, Esq., Black Hamburg, White Syrian, and Charlesworth Tokay grapes; John Cook, gardener to Rev. J. M. Richards, fine Catawba grapes; Mr. J. B. Baxter, Catawba and Isabella grapes, and also a large collection of very superior pears; Mr. Philip S. Bunting also showed some excellent seckel pears; John Perkins, of Moorestown, had a display of fine apples; John Cook placed on the table some large celery and cabbage; Mr. Williams, gardener to Dr. H. Evans, also showed some large celery.

The Committee on Plants and Cut Flowers awarded the following premiums.—

For collection of 10 plants, best to John Pollock; specimen plant, best to the same; second best to James Eadie; pair of specimens, best to John Pollock. Designs, best to John A. Goehring; second best to R. Kilvington. Basket, best to John A. Goehring. Bouquets, best to Joseph Cook. A special premium to R. Buist for three new Lantanas; also to B. E. Sutherland for new Ferns and Caladium; also to R. Buist for collection of Dahlias.

The Committee on Fruits made the following awards:—

For the best foreign grapes, James Matheson; best Isabella, John A. Goehring; second best, J. B. Baxter; best Catawba, to John Cook; second best J. B. Baxter; best pears, six varieties, to the same; best three varieties, to the same; best apples, four varieties, to John Perkins. Apples, best half peck, to the same. The Committee notice a new grape (foreign) called the Frogmore Seedling, of very good quality and fair in appearance.

The Committee on Vegetables awarded, for the best celery, to John Cook; second best, to W. Williams. Savoy Cabbage, best to John Cook.

NOVEMBER.

The stated meeting for November was held on Tuesday evening, the 15th inst.

The display of Plants and Flowers, Fruits and Vegetables was very good for the season, and were contributed by the following persons; Plants and Flowers by C. H. Miller, gardener to D. Rodney King; Joseph Cook, John Randall, gardener to J. D. Wetham; James Ritchie, J. J. Habermehl, John Pollock, gardener to James Dundas; John Grey, James Eadie, gardener to Dr. James Rush; Wm. Joyce, gardener to M. W. Baldwin. Fruits by John Perkins, J. B. Baxter, J. M'Laughlin, gardener; John Chambers; S. W. Noble. Vegetables by J. J. Habermehl, A. L. Felten, Wm. Grassie, John Cook, gardener to Rev. J. M. Richards.

The following premiums were awarded for Specimen Plants; 1st class—best, to James Eadie; collection of Tea plants—best, to Wm. Joyce; pair Specimen plants—best, to James Eadie; Bouquets, pair—best, to J. J. Habermehl; second best, to Joseph Cook. For New plants a premium of $2, to John Pollock, for *Adhatoda Cydonifolia*; a special premium of $1 to James Ritchie, for 3 *Epacris* a special premium of $3, to C. H. Miller, for a collection of new and rare plants; also, to the same, for a neat rustic vase, containing a choice collection of native mosses, growing. The *Sporgnla* in this collection, the proposed substitute for grass in lawns, may answer for deep shaded, moist, or sheltered situations, but the Committee doubts its hardiness here under any conditions.

Fruits.—Pears, six varieties, 3 specimens each; best, to John Chambers, Mount Holly, N. J.; second best, to J. B. Baxter; for the six largest of any variety, to J. B. Baxter. Apples.—Six varieties, 3 specimens each; best, to John Perkins, of Moorestown, N. J.; second best, to John Chambers; third best, to S. W. Noble, Jenkintown, Pa.

Vegetables—Celery—Best to John Cook; second best to A. L. Felten; Brocoli—Best to same; Cauliflower—Best to same; Brussels Sprouts—Best to W. Grassie; second best to A. L. Felten; Lettuce—Best to same, second best to John Cook; also, special premium of $1 for a pair of very well grown Cucumbers to John Cook; they call attention to a good display of Vegetables by A. L. Felten.

Mr. Charles Harmer presented the history of the "Bartram" Pear: "The following description of the Bartram Seedling Pear, exhibited at the Horticultural Exhibition in September last, was given me by Miss Gibson, niece of Mr. James Bartram, deceased, on whose Farm, in the Twenty-fourth Ward of the City, below Gray's Ferry, the Pear was grown. The original tree grew in an old hedge row, along a fence line, and bearing fine fruit, was taken up by Mr. Bartram and planted near his house. This tree, being large, did not live when transplanted; but as there were four suckers growing from its roots, they, also, were taken up and planted, Mr. Bartram being anxious to preserve this fine variety of fruit. Out of the four suckers three grew and are now about twenty-five years old and fine bearing trees. These Pears were never exhibited until this autumn, at the Pennsylvania Horticultural Society. There is a pear named the Bartram, which is small, and not a good variety, therefore Miss Gibson desires the name 'Bartram' to be given to the pear exhibited on September last."

The annual election for officers of the Society was held, which resulted in the choice of the same board now in office.

HENRY HAY, Recording Secretary.

MORRISANIA, N. Y., HORTICULTURAL SOCIETY.

The third annual exhibition was held on the 13th and 14th October. We gather from the report that there has been some misunderstanding amongst the officers of the Society, and that the display of House plants were not as fine as usual. In other respects the exhibition was a very successful one. The following are some of the principle premiums awarded.

Flowers.—Greenhouse plants, Louis Heferle. Best display of cut flowers, W. Mackay. Best Dahlias, A. Richardson. Fine Table bouquet, Mr. Wakeling. Fine table bouquet, Wm. Mackay.

Fruits—Best plate of pears, Mrs. Lawson. Best collection of Grapes, Mrs. Harrison. Largest perfect bunch, Captain Jones. Best Water Melon, J. Davin, gardener to B. M. Whitlock. Best Citron Melon, L. H. Knapp. 2 Apple-pie Melons, Wm. Vanville.

On pears, second best apples, peaches, plums, quinces, and musk melons, no awards.

[We regret that anything should mar the usefulness of this promising young society. In no association is charity and forbearance more necessary than in our meetings. Exhibitors often feel, and seemingly with reason, that they have been slighted, and though the judges may be men far above suspicion, they will at times err in their decisions. So also with the other officers and managers. The widest charity should be allowed them. Not "letting well enough alone," has ruined scores of horticultural societies, as it has of happy homes. It is not well to quarrel with our crooked stick, until we are well assured we shall not have to endure a crookeder. We make these remarks as applicable to no horticultural society in particular; but for the general good.]

HORTICULTURAL SOCIETY, CLEVELAND, OHIO.

We have received a report of this infant society from its able President, Dr. Edward Taylor. We are gratified to find it so prosperous, and hope to be furnished with full reports regularly.

CHICAGO GARDENER'S SOCIETY.

The regular monthly meeting of the society was held at the *Prairie Farmer* office.

The Temperature of Water for Plants, was a subject brought before the meeting. Mr. Ure introduced it as one of some importance to the health of plants and the success of the gardener. Water should be tempered—never be applied to a plant when below 60 deg. temperature—better be higher than that. He fills tin vessels with water and places them on the flue, so that they are always ready to be emptied into the vessel from which he fills his syringe, and thus modifies its temperature.

It was asked if the temperature of the water should be raised to the temperature of the atmosphere in which the plants are growing.

Mr. Chambers believes if the tank is filled in the evening and remains until morning exposed to the atmosphere of the house, it will be safe to apply the water.

Mr. Williams has watered cucumbers with water as hot as 90 deg. without injury to the plant, but would not recommend it for plants, as a rule. He regarded 65 deg. or 75 deg. about the right temperature.

Incidently the subject of *Syringing Plants and Grapes at midday* was brought forward. Mr. Ure gave his practice. He syringed regularly at mid-day and at evening—preferred to do so rather than simply in the morning and evening. He did not think the plants needed it in the morning so much as noon, when the heat is greatest. It is damp in the morning from the water put on in the evening.

This practice was objected to by most present as unsafe and unnecessary.

Mr. Ure used the syringe daily throughout the season (when needed) at mid-day whether the sun was shining or not. He had used the syringe in his house when the temperature was 110 deg!

When he syringed at mid-day, he did not throw his water on the plants at once, and indiscriminately. If the sun was shining, he first produced a cloud by syringing the walks and all the wood work. He got up a steam—a cloud, and then syringed the plants or vines with impunity.

Strong objections were made to this practice in the grapery.

Mr. Ure sustained himself by asserting that his vines were healthy, made good growth and showed satisfactory fruit-buds now. —*Condensed from Emery's Prairie Farmer.*

BURLINGTON (N. J.) AGRICULTURAL SOCIETY.

At this excellently conducted Fair we notice the horticultural department was ably sustained. Hon. W. Parry, of Cinnaminson, exhibited one hundred varieties of pear.

MONTGOMERY COUNTY (OHIO) AGRICULTURAL SOCIETY.

Was held at Dayton, during the second week of October. Our correspondent, Mr. Ed. Fryer, of Dayton, sends us a report of the horticultural department, by which we are pleased to find so encouraging a prospect for horticulture in this region.

In fruits exhibited, pears were a middling display:—Beurre gris, d'Hiver nouveau, Glout Morceau, Vicar of Winkfield and Duchess d'Angouleme being the best. *Apples* were in much greater variety, and fine specimens: Mammoth pippin, (true to its name,) Putnam pippin, golden pippin, fall pippin, Smith's cider, Rambo and winter pearmain were among the finest.

End of Volume