

winter. Plants on a south border have stood best; and those where the bulbs were planted from 5 to 6 inches are the strongest and best. It is decidedly one of our most showy spring plants. With the above came seeds of 11 varieties of *Aquilegia*; some of the varieties of *A. glandulosa* are splendid: also several species of *Allium*, *Iris*, *Lilium*, and *Statice*. Among the seeds from the Amoor River, *Fraxinus Mandschurica*, *Syringa amurensis*, and *Vitis amurensis* appear the most distinct. *T. S., Raby Castle, Durham.*

Effects of the Late Severe Winter.—As you have invited information on this subject, I have been induced to make a few observations on what has occurred in this locality. In a new kitchen garden lately formed here none of the Broccoli, Brussels Sprouts, Coleworts, or Kales have been in the least injured by the frosts of October and December. The situation of this garden is on the outside of the park on a piece of table land comparatively high for the neighbourhood, and quite unsheltered by trees of any kind. The soil before being made was of a very stiff and adhesive character, and the subsoil a strong red clay. The drains put in were nearly 4 feet deep, the clay from them was all burnt, and what was not required for filling up was mixed with the soil. No extra precautions were taken for preserving any of the winter vegetables, except Broccoli, which was all laid down close to the ground with the head to the north, and some charred refuse placed round the stems. I have been cutting Snow's and Dilcock's Bride, both excellent in quality, for the last three weeks, and other later sorts yet to come in will keep up the succession till the middle of June. In all the kitchen gardens in this neighbourhood, especially in low sheltered situations, I hear of nothing but desolation amongst the vegetables. No Broccoli Sprouts or Coleworts of any kind are to be seen. The extraordinary nature of the season in autumn, and the severe touch of frost so early in October, seem to have been best withstood in gardens openly situated and well drained, like the new one at Welbeck. In the nurseries and pleasure-grounds here hardy Rhododendrons, both standards and dwarfs, have suffered much, the bark being split off the stems; and hybrids of the campanulatum breed, being earlier in flowering than others, have had the young shoots and flower-buds killed. *Farfugium grande* will not stand above 8° or 10° of frost safely; at least, that is my experience of it. Amongst Coniferous plants which have been totally killed here may be reckoned *Cupressus Knightii* or *elegans*, *Chamaecyparis thurifera*, and a species from the Horticultural Society; also all the young plants of *Pinus insignis* and the Mexican species *Teocote*. Among Conifers very much browned but not killed may be named *Pinus excelsa*, *Montezumæ*, *muricata*, *tuberculata*, large plants of *insignis*, and *Sequoia sempervirens*. Among Coniferous and other plants which have proved quite hardy must be mentioned *Pinus monticola*, *Jeffreyi*, *Beardsleyi*, *Lambertiana*, *Benthamiana*, *Sabiniana*, and *cembraoides*; *Abies grandis*, *amabilis*, *Nordmanniana*, *Pinsapo*, and *Menziesii*; *Cupressus Macnabiana*, *Lawsoniana*, *Goveniana*, *Lambertiana*, and *Thuja giganta*. *Thuja giganta* is as hardy as the common *Arbor-vitæ*, and much handsomer in colour and foliage. *Libocedrus chilensis*, *Torreya grandis*, *Thuja dolabrata*, and *Wellingtonia gigantea* have everywhere proved quite hardy; only in exposed windy situations the latter gets a dingy brown colour like the common *Arborvitæ*, but soon changes as it begins to grow in the spring. Wall fruit and hardy fruit of all kinds promise to produce the best crops known for many years, judging from the quantity of bloom, the ripeness of the wood, and the backward state of the spring. They are at least three weeks later than usual in blooming, and there is an excellent chance of their setting well in consequence. *William Tillery, Welbeck, April 16.*—The cold commenced here (Barking Side) as in other parts of the kingdom on October 21. The weather had been previously mild, and on the above day changed suddenly to a sharp frost accompanied by a piercing north wind; the same night the thermometer fell to 22°, and on the 23d to 18°. Much damage was undoubtedly done though not apparent for some time, all kinds of vegetation being full of sap and growth. In the middle of December we had a return of severe weather, commencing the night of the 13th, when the thermometer fell to 22°; on the 14th to 18°; on the 15th to 10°; on the 16th to 7°; on the 17th to 12°; on the 18th to 3°; on the 19th to 7°; on the 21st a thaw set in. In my garden the result is rather singular. Broccoli is almost entirely destroyed, while Savoys, Brussels Sprouts, Turner's Cottage's Kale, and Winter Spinach are perfectly uninjured. The kitchen garden is walled on three sides, the house and offices constituting the fourth; it is open towards the north-west. In this same kitchen garden there is a small Rosery. Cloth of Gold and Solferino were killed outright; these were standards. Other Noisettes, standard and dwarf, were materially injured; *Jaune Desprez* against a wall, but facing north-west, scarcely injured at all; on the other side of the house, facing south-east, the injury to the Noisettes is but slight; all other kinds have escaped. Strange enough, evergreens, such as *Laurustinus*, *Aucubas*, and common and Portugal Laurels have not suffered in the least, though quite open to the north-east. The temperature I have quoted was taken with a thermometer, one of Negretti and Zambra's, placed on a pedestal 4 feet high in the kitchen garden, about 20 yards from the house, and the same distance

from a wall. When the thermometer in December fell so low I began to doubt its accuracy, and placed a mercury thermometer by the side of it; they agreed in the main, though varying sometimes 2° or 3°. Negretti and Zambra's, though sufficiently accurate for garden purposes as it essays to be, cannot, I presume, be depended upon for absolute nicety from the degrees being cast in the metal, which, of course, must be done before the spirit tube is adjusted. Can the depth at which springs lie from the surface have anything to do with the effect of severe frost upon vegetation? Here the springs are high; a well of 9 feet deep affords a never-failing supply of good water; the soil is gravel with a superstratum of loam, from 1 to 4 feet thick. *S. C., Essex.*—We have passed quite 11 years in this climate, and no winter has been so destructive to plants as this one; although we have before experienced a greater degree of frost. We never had the glass below 10° this season, and then only for a night, but the changes from wet to frost have been very frequent. We have suffered most in evergreens. The common *Laurustinus* have lost all their leaves and have died back a good deal; Sweet Bays have not lost leaves, and are alive below, but very much cut; Portugal and common Laurels and *Arbutus* have suffered, but not severely; Evergreen Oaks are much browned; a large plant of *Garrya* is dead, *Escallonia macrantha* has been killed to the ground; *Deodara* and *Cryptomeria* are not hurt. All shrubby Heaths have been killed, and double Furze; Myrtles are also cut down to the ground. *Veronicas* (*Andersoni*, *Lindleyana*, and *speciosa*) are quite dead. *Coronillas*, *Clanthus*, *Pittosporum* have all been killed, even fine plants of six and seven years' growth; *Ceanothus dentatus* is not hurt; *Jasminum nudiflorum* is not touched on an east wall. No Roses are hurt except a few that were moved too late; narrow-leaved Laurel is uninjured, and herbaceous plants are all safe; *Cerithe aspera* (self-sown) has lived and flowered all winter. A *Banksia Rose* is not in the least cut. Fruit trees are covered with bloom, and never looked better; *Forsythia viridissima* is very finely in bloom; a three-year old Pampas Grass shows no signs of life—three out of six (two-year old) only show green. Our Myrtles are 10 years old and quite trees. They are not dead at the root. Nothing is protected in these parts. It was the October 21st night that did us the most harm. Rhododendrons are pinched, but none are killed; *Andromeda floribunda* flowered as well as usual, and is not in the least hurt; nor is *Farfugium grande* or *Chusan Palm*, or *Skimmia japonica*. The nights are still very cold. *J. and M. Marryat, Maes-y-dderwen, Vale of Swansea, 230 feet above sea-level.*—The following is a list of a few plants, principally of recent introduction, which have been injured or have weathered the storm. You will find that accounts from different parts of the country will vary considerably, as very much depends on the soil and situation the plants are growing in, as well as the state the plants were in at the time the frost occurred. I find that many plants which had been transplanted only a little time before the frost set in and were in a dormant state have not suffered, while precisely the same plants in a luxuriant state of growth have been killed to the ground. For instance common Hollies where in a thriving state have been killed nearly to the ground, but the Chinese kinds growing by the side of them, viz., *Ilex cornuta* and *furcata*, have not been injured, yet I consider the common Holly hardiest. In former years I have seen *Laurus regalis* cut down to the ground, but here it is uninjured, so after all I do not consider that this winter will afford a fair test of what will stand and what will not. Very few people ever remember such hot damp weather, followed by such a frost as we had last October, and we may not have such another season for 100 years to come. Monsieur Keteler, of the firm of Thibaut and Keteler, of Paris, was at Bagshot last week, and he says that they had no sudden frost at Paris last October, but they have had a more severe winter there than they have had for years, the thermometer sometimes sinking 21° Centigrade below the freezing point. Sad havoc has therefore been committed amongst evergreens, all the *Araucarias*, *Deodars*, *Mount Atlas Cedars*, &c., have been either killed or injured, so much so that they will never be fit to look at again, while the same plants here have not been injured in the least. The Yellow Camellia, quite out in the open nursery, has not been hurt; on the contrary, it is much hardier than Laurels or Hollies; all the Chinese *Cephalotaxus* and *Berberis* are amongst the hardiest of the hardy. I never remember seeing so many Roses destroyed by frost as this season. I have a great many Hybrid Perpetuals and Bourbons killed, and I have thousands of Teas and Noisettes totally destroyed. All my yellow Roses out of doors are killed except one sort, called *Noisette Celine Forestier*, which has not been injured, but is as hale as it is beautiful. I had a few Teas and yellow Noisettes planted out under the protection of Tiffany, not one of which has been injured. Among plants that have not suffered from the late frost may be mentioned *Abies jezoensis*, *Berberis japonica* and *Bealii*, *Cephalotaxus* (all the varieties), *Fortune's Yellow Camellia*, *Juniperus sphaerica*, *Ilex cornuta* and *furcata*, *Libocedrus chilensis*, *Pinus Benthamiana*, *Thuja Craigiana*, and *Wellingtonia gigantea*. *Cryptomeria japonica*, where in a luxuriant state of growth, is very much injured; *Cupressus macrocarpa* and *Sequoia gigantea*, the same; common Holly grow-

ing freely very much cut; *FitzRoya patagonica* and *Saxegothea conspicua* either killed or very much injured; *Pinus insignis* and *radiata*, young growing plants, very much injured. *Jno. Standish, Bagshot, April 17.*—The following is my experience of last winter here on the borders of Northamptonshire:—Killed: *Cupressus gracilis* (after standing in vigour for five years), *C. Goveniana* (not healthy before), *Berberis intermedia*, *Stauntonia latifolia*, all the Sikkim Rhododendrons, *Farfugium grande*. Much cut: *Berberis Darwinii* and *Fortuni*, *Gynerium argenteum* (? killed), *Dacrydium Franklii*, *Abies Brunoniana*, *Chamaerops excelsa* (*Chusan Palm*). Cut: *Cupressus Knightii* and *Udeana*, *Araucaria Cunninghamii*, *Rosa Fortuni*, *Arbutus*, *Laurustinus*, *Pinus insignis*, *Libocedrus chilensis*. Entirely uninjured: *Berberis japonica* and *Bealii*, *Cupressus funebris*, *Juniperus excelsa*, *FitzRoya patagonica*, *Wellingtonia gigantea*, *Thuja borealis*, *Thuja giganta*, *Photinia serrulata*. To this account I may add that two-thirds of my standard Roses have been killed, the summer shoots of both *Deodars* and *C. Lambertiana* cut off, and (as far as I can judge) both *Paulownia imperialis* and *Catalpas* cut far back into last year's wood. *P.*—With me *Cupressus Lambertiana* is much injured, and I doubt if it will recover; common upright Cypress quite killed; *Taxodium sempervirens* and *Laurustinus* are much injured, but not killed; *Cryptomeria japonica* has escaped without much harm, a few inches of some of its shoots only being cut. *Araucaria imbricata*, *Cedrus Deodara*, *Juniperus chinensis* and *recurva*, and *Pinus excelsa* are proof against frost. A fine plant of the Pampas Grass is cut down to the ground, but it seems inclined to spring again. Broccoli is killed. *George Frost, Nurseryman, Brushford, near Dulverton, Somerset.*

Paper Materials.—In your remarks upon different substitutes for rags for making paper, I have not observed any mention made of *Holcus saccharatus*. I grew some last year which I cut green for my cattle, and the second growth was cut down by the frost. I inclose a portion of the stalks which have stood out through the winter, and on looking at them the other day it occurred to me that the quantity of fibre the plant evidently contains might be made useful. Be good enough to notice whether it may be so. *E. M. Smith Bigg, The Hyde, Crawley, Sussex.* [If you will refer to p. 314 you will find that very full mention has been made of *Holcus saccharatus*.]

Grafting Wax.—Allow me to thank your kind correspondent, Mr. Hancock, for his offer of stearine; but I now find that by reducing the sealing wax to a fine powder, and beating it up with the other ingredients after they have been melted and cooled, a sufficiently good mixture is obtained. Of course the mixture is merely a mechanical one, and therefore some cheaper insoluble powder might answer equally well. It is certainly a singular fact that the only recipe given in several works of authority should be one absolutely impracticable. Are we to infer that no one has ever thought it worth while to make the experiment? *G. S.* [We never before heard of sealing-wax being used in preparing grafting wax. It is far too costly an ingredient, even if it possessed any peculiar merit.]

Lehmann's Herbarium.—Dr. John George Christian Lehmann, of Hamburg, who died on February 12, aged 68, was Professor of Natural History at the Gymnasium of Hamburg from 1818, and Director of the Botanic Garden from 1821. The widow of the late Professor Lehmann intends to sell the herbarium which he has left, and she has asked me to give you notice of the contents and condition of the collection. It consists of:—1. The general herbarium, containing about 70,000 specimens of plants (about 30,000 species) arranged on the Linnæan system. Each species is fixed to a single sheet of paper, either with gum or with small slices of gummed paper, or with pins. With the name belonging to each species is given the name of the collector, the country or place where it came from, and the name of the donor. This collection is particularly rich in original specimens, which will not be often met with in other collections of dried plants; for instance the original plants of Wallich, the collection of Thonning from Guinea, of Olaf Swartz, Bunge, Fischer, Vahl, Forskael, Raddi, Jussieu, Labillardiere, Preiss, the orchids of Ledebour, &c. The Cyperaceæ are very rich, they containing all the American species of *Asa Gray*. The estimated price for this general collection is 800*l.* 2. A collection of the original plants collected by Dr. Preiss, according to the *Plantæ Preissianæ*, price 200*l.* 3. The collection of the *Potentilla*, original plants, very rich, price 150*l.* 4. Two collections of *Hepaticæ*; the first containing the original plants of the *Synopsis Hepaticarum*, by Nees v. Esenbeck and Linden-berg, folio, price 150*l.*; the second in 4to, containing suboriginal plants, price 100*l.* 5. The *Primulaceæ*, by Lehmann, price 50*l.* 6. The *Asperifoliaceæ*, by Lehmann, price 40*l.* 7. A portfolio with *Alga* and *Lichens*, price 15*l.* The estimated price for the general collection or those for the others will be reduced and any reasonable offer that may happen to present itself will be accepted. *Edward Otto, Curator of the Botanic Garden, Hamburg.*

Natural Selection.—I have been much interested by Mr. Patrick Matthew's communication in the Number of your Paper, dated April 7th. I freely acknowledge that Mr. Matthew has anticipated by many years the explanation which I have offered of the origin of species, under the name of natural selection. I think

that no one will feel surprised that neither I, nor apparently any other naturalist, had heard of Mr. Matthew's views, considering how briefly they are given, and that they appeared in the appendix to a work on Naval Timber and Arboriculture. I can do no more than offer my apologies to Mr. Matthew for my entire ignorance of his publication. If another edition of my work is called for, I will insert a notice to the foregoing effect. *Charles Darwin, Down, Bromley, Kent.*

Societies.

HORTICULTURAL.—A Special General Meeting of this Society was held on the 17th inst., at the House of the Society of Arts, John Street, Adelphi, Rev. L. V. Harcourt, V.P., in the chair, when the following candidates were elected Fellows: viz., Mrs. J. Alexander, H. Chester, Esq.; Mrs. Chester, Mrs. W. H. Cole, C. Gayford, Esq.; G. Goss, Esq.; E. B. Green, Esq.; H. Hammersley, Esq.; Mrs. Hammersley, Rev. F. R. Hepburn, E. J. M. Herapath, Esq.; A. Jardine, Esq.; Sir R. Jarvis, Sir E. Lacon, Bart, M.P.; H. Langley, Esq.; T. Y. Learmonth, Esq.; C. J. A. MacLean, Esq.; Hon. Mrs. Maude, Mrs. J. Maudslay, Miss I. A. Maudslay, Miss C. R. Maudslay, W. R. Mitchell, Esq.; Capt. W. Pixley, Mrs. Pixley; R. E. Pixley, Esq.; Lieut.-General Sir G. Pollock, G.C.B.; Lady Pollock, Dr. D. Preston, Miss E. Ricardo, A. G. Robarts, Esq.; W. Scott, Esq.; Mr. J. Salter, H. W. Segelcke, Esq.; Col. Sidley, Major-Gen. Sir S. W. Steel, K.C.B.; E. D. Verner, Esq.; Mrs. H. B. Ward, The Lady H. Wardlaw, E. Warwick, Esq.; Mrs. E. Warwick, S. H. Waterlow, Esq.; Mrs. L. Wight, and Mrs. B. Wynne.

The Chairman announced that the Anniversary Meeting would be held on Tuesday, the 1st of May, and we observe by an advertisement in another column that it is to take place in the Museum of Science and Art at South Kensington, by permission of the Lord President of the Council.

APIARIAN: April 17.—Dr. Hall, of Tottenham, in the chair. Mr. Tegetmeier reported the death of one of the Ligurian queens, lately introduced into the Society's apiary. Mr. Shirley Hibberd read a paper on Bee-keeping in London, in which he related his own experiences in the three-mile circle during the past three years. A Stewarton super, weighing 32 lbs., was exhibited as a sample of what could be accomplished in the London suburbs. It was unanimously pronounced excellent both in colour and flavour, and the style in which the box was worked a credit to apiarian science.

Notices of Books.

The Manse Garden; or, Pleasant Culture of Fruit Trees, Flowers, Vegetables, and Sweet Herbs for the Beauty or Profit of the Villa or Farm. By N. Paterson, D.D. Small 8vo, pp. 234. James Blackwood.

If there is one kind of book with which readers are more apt to be dissatisfied than another, it is one upon gardening. So many different kinds of plants are in cultivation, and so many different tastes and objects prevail among cultivators, that to attempt to satisfy all inquirers is as hopeless as the task of Sisyphus. One reader wants a book of directions ample and detailed as Mrs. Acton's "Cookery;" such a one is recommended, and when bought the purchaser calls it nought because it does not explain how to hoe, and rake, and dig. A second wants what he calls "general practical instruction," and is indignant when he finds it tells him nothing but what he thought he knew before. This zealous gentleman asks for a work on growing flowers: and when he cannot find in it all the newest names he pronounces it worthless. Perhaps a book on first principles is sought for; this is too learned, that too trifling; the first demands an effort of thought, the second gives nothing to think about. A very good-natured gentleman bought Loudon's Encyclopædia, but put it aside because it contained so much about everything; and on buying another work with a similar name, but which we name not, returned it to his bookseller because it contained nothing about anything. In short this book is too clever, that too trifling; one is too full, another too empty; some are too old-fashioned, some not new-fashioned enough. Perhaps the best form of book would be that of *Æsop's Fables*; the way of growing every plant standing instead of the old author's story; the reason of it replacing his moral. If a book like this were published it need not fill more than 50 volumes 8vo, nor cost more than 50*l.*; but then who is to buy it?

The picture thus sketched of the misfortunes of gardening authors is no caricature, as publishers find to their cost. The truth is nobody knows exactly what he wants in the gardening line when he buys a book; and the only thing an author can do is to write a book which tells a man all he ought to want. The work at the head of the present notice fulfils that condition, and admirably. It is exactly what its name indicates. Its object is to show what work has to be done in the garden of a Manse or Scotch Vicarage, and how to do it. It does not explain, indeed, that we perceive, what a gardener is to do when he sets about hoeing; it does not say that the body must be bent, the hoe handle grasped

firmly near the middle by the left hand while the right seizes it higher up, and so on. Dr. Paterson is not a drill serjeant, and passes by the manual exercise. But he gives more than an equivalent; his little book is full of moral drill, of priceless value, as will be admitted by every one who has had to do with men well drilled perhaps in the manual but not at all in the moral exercise.

In the way of practical instruction we do not believe that a single thing is required in a Manse garden properly so called, we might even add in a small English parsonage, that is not here fully treated of, from the implement called "the Minister's Boy," up to Pears, Peaches, and border flowers. Grapes are omitted because they will only ripen in greenhouses in Scotland, and a greenhouse forms no part of the dignity of a Scotch clergyman. The book too has a charm beyond even that of clearness and fulness, in which two important qualities there is nothing left to be desired. Its style is delightful; a little quaint, racy with dry Scotch humour, nervous and vigorous like that of Roger Ascham. No such example of the pure old English style has appeared in modern garden literature. If it were permitted to compare mean things with graceful, we should almost say that the Manse Garden might have been written by Cobbett, had he only been a gentleman and a clergyman, and had understood what he was writing about.

Let us first take an example or two of practical instruction. Dr. Paterson is no advocate of directions for cropping being conveyed in the form of Gardening Calendars. "Season," he remarks, "is the chief thing to be observed, as no art of man can make up for the loss of time, and the difficulty of redeeming it may be seen in a late sown and worthless crop." But it is not easy to the inexperienced gardener to recollect what should be done in the several months as they proceed. To meet this difficulty, some have arranged their directions for the garden by making the months of the year the heads of their chapters, and setting down in each the work appropriate to the time. But this, which seems a simple and perfect method, happens in reality to be the most confused and inconvenient that has yet been devised. The preparation of the ground for any crop is to be found in one month, the sowing in another, and the future operations necessary to its culture must be sought at a venture, under some of the 12 heads, and most probably will not be sought at all. How much easier is the process, if you are interested about the production of an Artichoke, to go to that article, and find all you want in one page. Let the doing once follow the reading, and then there is no more to learn, and no forgetting of what has once been so acquired." The italics are ours; and we recommend them to the serious consideration of all garden dawdlers. Nevertheless, our author does not altogether object to a few concise hints being given in the shape of a Calendar, and he gives a short but good one himself.

He discourses thus of Artichokes:—"The Artichoke is a delicious and wholesome vegetable, provided it be itself eaten rather than used as a spoon. It is propagated by offsets from the roots; and as part of these require to be cleared away from old plants in order to leave no more stems for next crop than have room to grow, there is no difficulty in finding materials for a young plantation. Choose the deepest of your soil, keeping off the borders with this as with all high-growing crops, in order not to shade the wall-fruit; and in April, for each row of plants make a ditch 2 feet deep and 3 feet wide, on the bottom of which spread a layer of manure 4 inches thick. Then fill in half the earth, putting that lowest which was formerly on the top; and with the other half let more dung be mixed in the course of filling up the trench. Set the plants, three in a clump, 18 inches separate; and let the nearest part of each clump be at least a yard distant from the nearest part of the next. The roots will grow like stakes, penetrating the under stratum of manure, and send up strong stems, with large heads, for seven years, without requiring any more trouble than a rough digging of the ground before winter, and slight covering of litter in severe frosts." And thus of Dandelion:—"Dandelion is used as salad, chiefly by the French. It is said, when well blanched, to lose its extreme bitterness; and it has got, by the ceaseless greed of new things, into the garden books and cultivation of this country. Those who desire to feed on it may find plenty by the wayside. It is the most troublesome of all garden weeds. It is perennial, flowers early, and has winged seeds. The light down skims along the ground till it is interrupted by the Box edgings or the stems of fruit trees. In such places, finding shelter, it takes root; and there is no getting it dislodged. The best implement for the management of this plant is a blunt chisel with a long handle. By working this carefully down, the root may be extracted without uprooting the Box or inflicting canker on the fruit trees. The next resource is industry to prevent a single plant from ripening its seed; and to match its perennial virtue, let no piece of ground be dug without first scrutinising every inch for this delicate salad herb, in order that its roots may be carefully gathered and stored—in the bottom of the dunghill."

To our taste, however, the choicest of Dr. Paterson's dishes is that which relates to the MINISTER'S BOY, some passages from which will give an excellent example of the moral drill to which allusion has already been made:—

"Garden books commonly terminate in a description

of garden tools; and something, indeed, as to the best means of accomplishing the end their authors have in view may very naturally be expected. But as the dealers in tools as well as others in trade are usually quick-sighted enough to discover what sorts have the readiest sale, and as that sale soon comes to progress in the ratio of merit, the writer of the previous treatise is quite satisfied with the market as it is, together with the law which, without checking the multiplicity of inventions, circulates only the best. Instead, therefore, of describing the shape, size, or otherwise improved construction of spades, rakes, mattocks, and mouse-traps, he proceeds to consider only one implement of the manse garden, and which truly needs no little attention to its proper use and amendment, namely, the minister's boy. In former years the minister's man was a functionary of some note in the parish; but whether of late servants have risen in rank or ministers fallen, certain it is that the minister's man has now very generally dwindled to a boy. It may be, however, that a better economy, without supposing either a rise or fall in the rank of either, may account for the change. Descending from feudal times, when servants did nothing but kill and steal as they were bid, we find their wicked and in the long run ungainful employments substituted by a system of field labour, which for a long period had indeed its busy seasons, those of sowing and reaping, of collecting hay and fuel, with comparative idleness all the rest of the year. But now the dead of winter has less of leisure than the stirring summer had then; and the farm, more like a factory, finds work for all hands at all times. The fields, it is true, differ from the factory as to the matter of a roof for shelter; but the genius of the farmer compensates the deficiency by suiting the work to the weather; and the gleeful toil goes on as steady as in a house full of spindles and cards. Such an arrangement, if it do not cheapen provision, must raise the rent of land as well as the labourer's hire; and hence, as an idle day is now rare upon the farm, so an idle man, whether about the farm or the manse, becomes a nuisance to be no longer tolerated. * * * But the minister is not fit for the parish without a pony, and the pony cannot be kept without a boy, who will be half, and consequently wholly idle, if he have not other work to do. Such is the garden implement now under consideration. Whatever may be the outcry as to the uselessness of this official, let it be remembered, in the first instance, that he is indispensable to the pony, as the pony is to the minister; and further, that he is, if an idle boy, a substitute for an idle man; a spectacle less easy to be looked at. And as an encouragement to choose the least of two evils, the author avers, that the boy under proper direction is fully equal to all the work of the garden, with the exception of three or four days in the year, when better hands, whether as to strength or skill, may be required to lay up a winter furrow of deep digging, or to train a fruit tree round the stalk of a chimney; a height too great, it may be, for the minister's nerve, and perhaps for the decencies of his calling. This sufficiency of the boy, however, presupposes on the part of his master the possession of 'My Book,' together with such work of his hand as, giving health to his frame, shall be found also a pleasure to his heart. But it is further to be understood, that the following directions with regard to the improvements and use of the boy, are made some matter both of care and of conscience. In general boys are plagues. Something above what is usually denominated an urchin, and beneath a varlet, they are of the most impracticable age; an age when wit is the weakest and will is the strongest; when independence, as an end, is desired the most, and character, as means, regarded the least. They have escaped from school at a time when, conscious of strength, they begin to despise the master of a lowly seminary; and the parental authority to which they are required to submit is rarely good. The father being himself a servant, his children, by an instinct that needs to be amended, fail of respect; and he, most of his waking hours abroad, can do but little with the authority he has; whilst the mother, not careful of training at an early day, and used to the issue of uncertain commands, has recourse to persuasions and condescends to entreaty. Boys so reared come home, as their instalment to office, is termed; and though at first shy and dumb as a sheep, yet no sooner has a small command by a superior servant been imposed than it provokes a loud defiance, so naturally, in their new yoke, do they slide into the wonted rut of their ill made roads. Trained to no habits of industry, they like no sort of work. Their pleasure lies in idle companions; and their haunt is not yet the tavern, but the smithy, where they may spend the long hours in bartering a knife, in arranging a gallop, or marvelling at a gun-lock, with longing eye to the possession, but with no liking to the labour that might purchase the manly toy. So constituted, a boy cannot fall into worse hands than those of the minister, or enter upon work he is more reluctant to than his. On the farm the crack of the whip is music to his ear; the assemblage of labourers, the jibe and the jest, have the liveliness of a camp; whilst the yoking and unyoking of horses, the plunging of one unbroken to the yoke, and the upsetting of a cart, are a perfect Waterloo to his soul; and being there under authority, he is also surrounded with examples, which rouse his ambition, or soothe the toils of the day. But the scene is different at the manse: the boy works alone, if he work at all; he is depressed