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DESCRIPTIVE CATALOGUE
OF
GARDEN SEEDS
CULTIVATED AND SOLD AT THE
WETHERSFIELD SEED GARDEN,
BY COMSTOCK, FERRE & CO.

CONTAINING GENERAL DIRECTIONS FOR THE MANAGEMENT OF THE VEGETABLE
GARDEN, DESCRIPTION AND USE OF IMPLEMENTS, MANURES, SOWING SEEDS,
TRANSPLANTING, WATERING, AND MODE OF DESTROYING INSECTS,

WITH

DESCRIPTIONS OF ALL THE FINEST VARIETIES OF CULINARY
VEGETABLES :

INCLUDING MANY NEW AND IMPROVED KINDS OF RECENT INTRODUCTION,
WITH DIRECTIONS FOR CULTIVATION AND PRESERVATION.

COMSTOCK, FERRE & CO.,
SEED GROWERS,
WETHERSFIELD SEED GARDEN, WETHERSFIELD, CT.

ADVERTISEMENT.

THE WETHERSFIELD SEED GARDEN is situated in the village of Wethersfield, three miles below Hartford, on Connecticut River. It is one of the oldest and most extensive Seed Establishments in the United States, and has long been celebrated for producing superior Garden Seeds.

Having made choice of the finest varieties of culinary vegetables, we take every precaution to grow the seeds pure, and of the very best quality in every respect. By selecting the most perfect roots, plants, and fruit, for seed stock, and eradicating from the growing crop every thing impure or degenerate, we are enabled to preserve and rather improve their quality; while the great extent of our grounds places it in our power to avoid all danger of spurious seed from the intermixture of the different varieties. Our soil and climate are well adapted to mature the various kinds of garden seeds grown in this country, but there are some sorts which arrive at greater perfection in Europe; these we import direct from the first Seedsmen in London and Paris.

We superintend the labors of the garden ourselves, sow the seeds with our own hands, and attend personally to their cultivation, cleansing, and packing for sale, so that we can guarantee the most perfect accuracy in the fulfillment of orders, and with confidence *warrant* our stock of seeds to be *fresh and pure*.

The superiority of Northern grown seeds for a more Southern climate, is known to every observing horticulturist. They produce a crop much earlier, and generally yield better than seeds grown farther South.

Our sales are made in bulk, and in papers put up in the neatest style, labelled with directions for cultivation, and packed in any sized boxes ordered, for city or country trade. From our large stock on hand when the new crops come in, we can put up an assortment suited to any climate, at short notice, but would prefer to have large orders forwarded, when convenient, early in the Fall.

Orders supplied at very reasonable prices, and delivered on board the Steamboats, at the Railroad Depot, or at the Express Office in Hartford, free of expense. Small packets can be sent by mail at single letter postage.

Wholesale Price Catalogues sent to purchasers on application.

COMSTOCK, FERRE & Co.

Entered according to Act of Congress, in the year 1849,

BY COMSTOCK, FERRE & CO.,

In the Clerk's Office of the District Court of the United States for the
District of Connecticut.

1st Month.

JANUARY, 1852.

31 Days.

SPEAK GENTLY ! It is better far

To rule by love than fear ;

Speak gently ! let not harsh words mar

The good we might do here.

MOON'S CHANGES.

D. H. M.

Full Moon, 7 1 25 morn.

Third Qu'r, 13 8 34 even.

New Moon, 21 2 43 morn.

First Qu'r, 29 5 50 morn.

M W O R O S D S

H. M. H. M. H. M.

Calendar of Gardening.

The gardening operations recommended in this Calendar, except when noted otherwise, are suited to the climate of New England, but may be applied to the South and West by making allowance for the difference of latitude and the variations of the seasons. The opening of spring is a fortnight later in some years than in others, when the operations must be delayed ; allowance ought also to be made for the character of the soil and the exposure of the garden.

There being no out-door work for this and the next month, you will have time to acquire much interesting and useful information on the subject of Horticulture and be prepared to undertake the business of the active season.—Make a plan of your garden and select your garden seeds before the assortment is broken. Be particular to purchase the *Genuine Wethersfield Garden Seeds* grown by Comstock, Perre & Co., and see that every paper has their warrant stamped upon it.—These seeds have been raised with great care and can always be relied on as *fresh and pure*. They are kept at nearly all the respectable Country Stores and at one or more of the Seed-stores in most of the large Cities.

FOR THE SOUTH. Spring work commences in New Orleans and the extreme South during this month, when most of the hardy seeds may be sown.—Continue to sow and plant out Callages and Cauliflowers.—Plant Peas ; they will not be injured by frosts until in the blossom.—Plant Irish Potatoes.—Should there be any severe weather, many young and tender plants will require some light covering.—Plant English Beans.—Sow Turneps, Spinach and Carrots for early crops.—Small Onions may yet be planted.—Plant Early Corn.—Sow Asparagus, Radish Beets, Parsnip, Salsify.—Sow in hot-bed Tomatoes, Egg Plants and Peppers.

Let it be remembered that fine vegetables need not be expected unless the ground be rich and well drained.

Speak gently ' Love doth whisper low
The vows that true hearts bind.
And gently Friendship's accents flow,
Affection's voice is kind.

MOON'S CHANGES.

D. H. M.

Full Moon, 5 2 9 even.
Third Qu'r, 12 5 19 morn.
New Moon, 19 8 40 even.
First Qu'r, 23 0 47 morn.

M	W	☾	☽	☽	☽
		H. M.	H. M.	H. M.	
1	SU	7 17	5 11	3 27	
2	M	7 16	5 13	4 30	
3	Tu	7 15	5 14	5 31	
4	W	7 14	5 15	6 23	
5	Th	7 13	5 17	risen.	
6	Fr	7 11	5 18	6 34	
7	Sa	7 10	5 19	7 56	
8	SU	7 9	5 21	9 5	
9	M	7 8	5 22	10 19	
10	Tu	7 7	5 23	11 31	
11	W	7 5	5 25	morn	
12	Th	7 4	5 26	0 44	
13	Fr	7 3	5 27	1 52	
14	Sa	7 1	5 28	3 0	
15	SU	7 0	5 30	4 1	
16	M	6 58	5 31	4 56	
17	Tu	6 57	5 32	5 44	
18	W	6 56	5 34	6 25	
19	Th	6 54	5 35	sets.	
20	Fr	6 53	5 36	6 13	
21	Sa	6 51	5 37	7 13	
22	SU	6 50	5 39	8 14	
23	M	6 48	5 40	9 13	
24	Tu	6 47	5 41	10 12	
25	W	6 45	5 42	11 11	
26	Th	6 44	5 44	morn.	
27	Fr	6 42	5 45	0 11	
28	Sa	6 40	5 46	1 12	
29	SU	6 39	5 47	2 14	

Calendar of Gardening.

All gardening operations being suspended this month, the most that can be done is to make preparation for Spring.—If the advice given last month has been disregarded, you may profit by it now.

List of Hardy Seeds.—Asparagus, English Beans, Beet, Broccoli, Cabbage, Carrot, Cauliflower, Celery, Corn Salad, Cress, Endive, Kale, Leek, Lettuce, Onion, Parsley, Parsnip, Peas, Radish, Salsify, Spinach, Sage, Turnip. These are the safest kinds to sow early.

List of Tender Seeds.—Kidney Beans, Cucumber, Egg Plant, Indian Corn, Melon, Okra, Peppers, Pumpkin, Squash, Tomato, and Herbs in general. It is not perfectly safe to plant or sow these before May.

Seeds will not vegetate unless within the influence of moisture, air and heat; be careful therefore not to sow your seeds too deep, or they will never come up.—See that your garden tools are in good repair, and procure such new ones as may be necessary.—Provide poles and brush for Beans and Peas.—Make hand-frames for protecting and forwarding early Cucumbers.

FOR THE SOUTH. This is the spring month in the latitude of Charleston, and next to March, the busiest one of the season.—Plant Irish Potatoes.—Sow Early Peas for a succession.—Transplant Cabbage and Lettuce plants.—Sow Radishes.—The general crops of Beets, Carrots, Salsify and Parsnips should be sown from the middle to the last, and during the next month all the tender seeds may be put in.—It is customary to wait about ten or fourteen days after the first appearance of peach blossoms before planting tender vegetables, when if the weather is mild, you may venture to sow a part.—

Sow seeds of the early varieties of Cabbage: the late kinds will generally be eaten up by worms, except the Green Glazed.—Sow Spinach in rich soil.—Sow Asparagus.—Dress Asparagus beds, and perform generally the operations recommended in the Calendars for March and April at the North.—Sow hardy Flower Seeds.

Speak gently to the little child—

His love be sure to gain—

Teach it the gentlest soft and mild—

It may not long remain.

MOON'S PHASES.

	O. H. M.		
Full Moon,	6 0	46	morn.
Third Qtr.,	12 3	45	even.
New Moon,	20 1	50	even.
First Qtr.,	28 4	6	even.

M	W	T	F	S	S
1 M	1 37	5 49	3 14		
2 Tu	3 35	5 50	4 10		
3 W	4 34	5 51	5 1		
4 Th	5 32	5 52	5 46		
5 Fr	6 31	5 53	riser.		
6 Sa	7 29	5 55	6 40		
7 Su	8 27	5 56	7 57		
8 M	9 26	5 57	9 14		
9 Tu	10 24	5 58	10 29		
10 W	11 22	5 59	11 42		
11 Th	12 20	6 1	morn.		
12 Fr	1 19	6 2	0 52		
13 Sa	2 17	6 3	1 56		
14 Su	3 15	6 4	2 54		
15 M	4 13	6 5	3 44		
16 Tu	5 12	6 6	4 26		
17 W	6 10	6 8	5 2		
18 Th	7 8	6 9	5 33		
19 Fr	8 7	6 10	6 1		
20 Sa	9 5	6 11	sets.		
21 Su	10 3	6 12	7 6		
22 M	11 1	6 13	8 4		
23 Tu	11 59	6 14	9 4		
24 W	12 58	6 16	10 4		
25 Th	1 56	6 17	11 4		
26 Fr	2 54	6 18	morn.		
27 Sa	3 53	6 19	0 5		
28 Su	4 51	6 20	1 4		
29 M	5 49	6 21	2 0		
30 Tu	6 47	6 22	2 51		
31 W	7 46	6 23	3 37		

Calendar of Gardening.

If the Spring is early, a few hardy vegetables may be planted in the open ground with safety in some locations, after the middle of this month; but if the weather be cold and wet, delay awhile for a few warm, sunny days.—Now is the time to prepare your hot-bed, if you intend to have one, for raising Early Cabbage, Tomato, Pepper and Egg Plants for setting out.—Sow in hot-bed, Lettuce, Cress and Radishes for early salad; sow the Radishes thinly, or the roots will be small and tough.—Put in a few hills of Early Cucumber on blocks of turf, to be removed out after the weather becomes settled in April.—Prepare Composts.—Manure and dig ground as soon as it will work, in the driest part of your garden, and plant a row of Early Peas.—Make a bed the south side of a building or tight fence, in a sheltered spot, for sowing Cress, Cabbages, Lettuce, Radishes, Tomato, and Spring Turnips, in the open ground. These may be easily protected, by spreading clean straw over the bed at night, to remain on during frost, and taken off in the morning, in mild weather.—Set out little Onions for Rarities.—Set out Cabbage stumps for early salad and greens.—Turn over compost heaps.—If omitted last fall, wheel manure upon your Asparagus beds, and fork it in.—Dig in manure around Rhubarb plants.—Plant a row of early Potatoes in a warm border.—Plant English Beans.—Remove the covering gradually from fall-sown Spinach, Lettuce and other protected plants.—After ploughing and harrowing, sow fine salt, at the rate of six bushels to the acre. It will be an excellent manure, and help clear the ground from grubs or cut worms.—Transplant Horne Radish, two or three inches deep and six or eight inches apart in rows two feet apart.

For the South. Sow Onions and

Leeks.—Sow all the tender seeds and commence weeding the advancing crops.—Transplant Tomatoes and Egg Plants into the open ground.

Speak gently to the aged one,
Grieve not the care-worn heart ;
The sands of life are nearly run—
Let such in peace depart.

MOON'S CHANGES.

D. H. M.

Full Moon, 4 9 40 morn.
Third Qu'r, 11 4 15 morn.
New Moon, 19 7 1 morn.
First Qu'r 27 3 19 morn.

M	W	☉	r	☉	s	D	s
		H. M.		H. M.		H. M.	
1	Th	5 44	6 24	4 18			
2	Fr	5 42	6 26	4 54			
3	Sa	5 40	6 27	5 27			
4	SU	5 39	6 28	rises.			
5	M	5 37	6 29	8 4			
6	Tu	5 35	6 30	9 21			
7	W	5 34	6 31	10 35			
8	Th	5 32	6 32	11 45			
9	Fr	5 30	6 33	morn.			
10	Sa	5 29	6 35	0 48			
11	SU	5 27	6 36	1 42			
12	M	5 25	6 37	2 27			
13	Tu	5 24	6 38	3 5			
14	W	5 22	6 39	3 38			
15	Th	5 20	6 40	4 6			
16	Fr	5 19	6 41	4 31			
17	Sa	5 17	6 42	4 55			
18	SU	5 16	6 43	5 18			
19	M	5 14	6 45	sets.			
20	Tu	5 13	6 46	7 58			
21	W	5 11	6 47	8 58			
22	Th	5 10	6 48	9 59			
23	Fr	5 8	6 49	10 59			
24	Sa	5 7	6 50	11 56			
25	SU	5 5	6 51	morn.			
26	M	5 4	6 52	0 48			
27	Tu	5 2	6 53	1 34			
28	W	5 1	6 55	2 15			
29	Th	4 59	6 56	2 51			
30	Fr	4 58	6 57	3 24			

Calendar of Gardening.

If the frost or snow has prevented the operations recommended for last month from being completed, take advantage of the earliest opportunity to make up for the delay.—Rake up and burn all the rubbish on your garden, but do not carry on manure or plough until the ground has become settled and dry.—Manure plentifully, plough deep and harrow fine ; then turn over your harrow, and go over the ground once more and drag it smooth.—Rake fine the plots intended for beds or drills.—After sowing, beat the ground gently with the back of your spade.—In undertaking to get the start of your neighbors, you will be likely to sow some of the tender seeds too early. If you do, and are disappointed in their not coming up, don't fret about the seeds, but try again : seeds are cheap.—Plant Early Peas, Marrowfat Peas, English Beans, Potatoes.—Sow Asparagus, Early Turnip Beet, Early York, Large French Oxheart, *Premium Flat Dutch* and Drumhead Cabbages, Carrots, Celery, Cress, Lettuce, Mustard, Onions, Parsley, Parsnip, Early Radishes, Rhubarb, Salsify, Round Spinach, Tomato, Strap-leaved Red or White Top Turnip.—After the middle, plant Early Dwarf and Early Pole Beans, Early Corn, Early Cucumbers, Early Bush Squash, Nasturtium, Sage, Summer Savory.—Towards the last of the month you may generally remove your hills of Cucumbers from the hot-bed to the open ground ; cover with hand-frames and attend to them according to the changes of the weather.—Weed your hot-bed, and give it air by raising the lights in sunny days, to harden the plants and prevent their being drawn up and becoming weakened. In a very warm sun it will be necessary to shade the lights at mid-day : water morning and evening.

FOR THE SOUTH. Transplant spring-sown Cabbages.—Towards the last of the month sow *Premium Flat Dutch*, Drumhead and Savoy Cabbages, Cauliflower and Broccoli, Tomatoes and Okra.

Speak gently to the young for they
Will have enough to bear!
Pass through this life as best they may,
Tis full of anxious care.

MOON'S CHANGES.

D. H. M.

Full Moon, 1 5 12 even.
Third Qu'y, 10 6 30 even.
New Moon, 18 10 31 even.
First Qu'y, 26 10 54 morn.

M	W	r	s	s
		D. M.	D. M.	D. M.
1 Sa	4 57 6	58	3 55	
2 Su	4 55 6	59	4 26	
3 M	4 54 7	0	rises.	
4 Tu	4 53 7	1	8 10	
5 W	4 51 7	2	9 24	
6 Th	4 50 7	3	10 33	
7 Fr	4 49 7	4	11 33	
8 Sa	4 48 7	5	morn.	
9 Su	4 47 7	6	0 24	
10 M	4 45 7	7	1 6	
11 Tu	4 44 7	8	1 40	
12 W	4 43 7	10	2 10	
13 Th	4 42 7	11	2 36	
14 Fr	4 41 7	12	3 0	
15 Sa	4 40 7	13	3 23	
16 Su	4 39 7	14	3 46	
17 M	4 38 7	15	4 10	
18 Tu	4 37 7	16	sets.	
19 W	4 36 7	17	7 53	
20 Th	4 35 7	18	8 54	
21 Fr	4 35 7	18	9 52	
22 Sa	4 34 7	19	10 46	
23 Su	4 33 7	20	11 34	
24 M	4 32 7	21	morn.	
25 Tu	4 32 7	22	0 16	
26 W	4 31 7	23	0 53	
27 Th	4 30 7	24	1 26	
28 Fr	4 30 7	25	1 56	
29 Sa	4 29 7	26	2 25	
30 Su	4 29 7	26	2 55	
31 M	4 28 7	27	3 27	

Calendar of Gardening.

Of all the months in the year, this is the most busy throughout New England for making gardens. There are a great many farmers who are willing to forego the luxury of early vegetables, to save the trouble of growing them, and make a practice of delaying to plant or sow anything in their gardens, until about the first or second week in this month, when they plough, plant and sow everything the same day. They have this advantage, that their ground is in the best possible condition for working; but they deprive themselves for several weeks of refreshing salads and early vegetables, which their more pains-taking neighbors are enjoying.—If you have neglected to procure your seeds, examine the box of Comstock, FERRÉ & Co's WETHERSFIELD GARDEN SEEDS, in the Store, as it is possible there may be "a few more left," and commence your work in earnest.—All the kinds mentioned the last month may now be sown for a succession or main crop, excepting English Beans.—Sow Peppers, Marjoram, Thyme, Basil.—Plant Lima Beans.—Sow Onions until the 15th, but the earlier the better.—Hoe over Asparagus beds.—Attend to your hot-bed.—From the 5th to the 15th, sow for fall and winter use, *Comstock's Premium Flat Dutch Cabbage*, (the best cabbage known,) Bergen, Drum-head, Savoy and Red Dutch Cabbages, Late Cauliflower and Purple Cape Broccoli.—Transplant early Cabbages from hot-bed.—After the middle, plant Cucumbers, Melons, Winter Squashes, Pumpkins, Dwarf and Pole Beans for the main crop.—About the 20th, sow Long Blood Beet, Sugar Beet, and Mangold Wurzel for winter keeping. Hoe, weed and thin advancing crops.—Watch Cucumbers, Melons and Squashes, and protect them from bugs.—Sow Flower seeds of various kinds, (see 4th page).—Transplant Tomatoes when the plants are six inches

high, and protect them from the sun and frost.—Brush Peas.—Hoe and weed Onions.—Hoe and earth up Peas.—Sow Lettuce and Radish.

Speak gently, kindly, to the poor,
Let no harsh tones be heard ;
They have enough they must endure
Without an unkind word.

MOON'S CHANGES.

D. H. M.

Full Moon, 2 1 42 morn.
Third Qu'r, 9 10 31 morn.
New Moon, 17 0 3 even.
First Qu'r, 24 4 3 even

M	W	☉	☿	♂	♂	♂	♂
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.
1	Tu	4 27	7 28	4 3			
2	W	4 27	7 29	rises.			
3	Th	4 27	7 29	9 17			
4	Fr	4 26	7 30	10 14			
5	Sa	4 26	7 31	11 1			
6	SU	4 26	7 31	11 39			
7	M	4 25	7 32	morn.			
8	Tu	4 25	7 33	0 12			
9	W	4 25	7 33	0 39			
10	Th	4 25	7 34	1 4			
11	Fr	4 25	7 34	1 27			
12	Sa	4 24	7 35	1 50			
13	SU	4 24	7 35	2 14			
14	M	4 24	7 36	2 39			
15	Tu	4 24	7 36	3 8			
16	W	4 24	7 36	3 41			
17	Th	4 24	7 37	sets.			
18	Fr	4 25	7 37	8 42			
19	Sa	4 25	7 37	9 33			
20	SU	4 25	7 38	10 17			
21	M	4 25	7 38	10 56			
22	Tu	4 25	7 38	11 29			
23	W	4 26	7 38	12 0			
24	Th	4 26	7 38	morn.			
25	Fr	4 26	7 38	0 28			
26	Sa	4 26	7 38	0 57			
27	SU	4 27	7 38	1 27			
28	M	4 27	7 38	2 0			
29	Tu	4 28	7 38	2 38			
30	W	4 28	7 38	3 22			

Calendar of Gardening.

Nearly all the seeds having been committed to the ground the last month, and the most of them up and beginning to advance rapidly in growth, diligent attention will now be required to keep the garden free from weeds.—The labor consists principally in hoeing, weeding, thinning, transplanting and watering.—If any seeds have failed, the ground should be immediately resown.—Transplant Tomatoes, Peppers and Egg Plants.—Prick out Celery Plants.—Sow Yellow Turnip Radish. Hoe Cabbages while the dew is on, and Beans while it is off.—Oxheart Cabbages may be sown about the middle, for fall use, if the late kinds were neglected to be sown in May.—Plant Cucumbers for pickling and Melons for mangoes.—Plant Sweet Corn.—If the weather be dry, stir the ground oftener.—When you commence watering, continue it until a change of weather renders it unnecessary.—Sow Ruta Baga about the 20th, and if possible just before a rain.—Transplant Cabbages sown last month into fresh ground, made very rich with barn-yard manure; the roots are apt to be diseased when manured from the hog-pen. Before taking up the plants, saturate the ground with water; and the earth will adhere to the roots when they are removed: to grow very large heads, set them two and a half feet apart each way.—If you neglected to sow salt over your garden, as recommended in March, and are now troubled with the grub eating off your Cabbage plants, open the earth at the foot of the plants injured, and you will be quite sure to find the worm near the root.—After watering, the ground becomes hard upon the surface, if not loosened with the hoe.—Gather herbs for drying just before they are in full flower: gather them in dry weather and spread them in the shade.—Early Cauliflowers,

sown in the fall and protected through the winter in cold frames, will be progressing to maturity, and must be watered in dry weather: break the leaves over the head, to protect them from the sun and rain.

Speak gently to the erring; know
They may have tailed in vain;
Perfiance unkindness made them so;
Oh! win them back again.

MOON'S CHANGES.

D. H. M.

Full Moon, 1 10 44 morn.
Third Qu'r., 9 3 22 morn.
New Moon, 16 11 31 even.
First Qu'r., 23 8 18 even.
Full Moon, 30 9 28 even.

M	W	☾	r	☉	s	☿	r
		H. M.	H. M.	H. M.			

1	Th	4	29	7	38		rises.
2	Fr	4	29	7	38	8	52
3	Sa	4	30	7	38	9	35
4	SU	4	30	7	38	10	10
5	M	4	31	7	37	10	40
6	Tu	4	32	7	37	11	6
7	W	4	32	7	37	11	30
8	Th	4	33	7	36	11	53
9	Fr	4	34	7	36		morn.
10	Sa	4	34	7	35	0	17
11	SU	4	35	7	35	0	41
12	M	4	36	7	3	1	8
13	Tu	4	37	7	34	1	39
14	W	4	37	7	33	2	16
15	Th	4	38	7	33	3	0
16	Fr	4	39	7	32		sets.
17	Sa	4	40	7	31	8	14
18	SU	4	41	7	31	8	55
19	M	4	42	7	30	9	31
20	Tu	4	42	7	29	10	3
21	W	4	43	7	28	10	32
22	Th	4	44	7	27	11	1
23	Fr	4	45	7	27	11	30
24	Sa	4	46	7	26		morn.
25	SU	4	47	7	25	0	1
26	M	4	48	7	24	0	36
27	Tu	4	49	7	23	1	17
28	W	4	50	7	22	2	5
29	Th	4	51	7	21	3	0
30	Fr	4	52	7	20		rises.
31	Sa	4	53	7	18	8	8

Calendar of Gardening.

Look out for weeds "about these days," and see that your growing crops are not injured by them, and that none are suffered to go to seed to make double the work another season.—Early York Cabbage, sown the first week, will head in October and November, and supply the place of the late kinds omitted to be sown in May. At the same time plant Cucumbers for pickling, if neglected last month.—Remove decaying crops; clean off ground occupied by early vegetables, and prepare it for sowing and transplanting fall crops. Sow Ruta Baga.—Transplant Celery into trenches for blanching; water and shade the plants from the mid-day sun.—Plant Sweet Corn for boiling late.—Sow Black Fall Radish.—The old rule, "sow your Turnips the 25th of July, wet or dry, a dubble full to the rod," is full late for the Large Norfolk, Globe and Yellow Aberdeen Turnips, when grown for cattle feeding: these all have pretty large tops. The Strap-leaved Red or White Top Flat and the Long White Turnips are the best for table use: they have small tops and will bear to be sown a little thicker; and being earlier will grow plenty large, more free from worms, and of much finer quality, if the sowing be deferred until about the 10th to the 15th of August. It will do to sow in fresh ploughed ground, in dry weather; but it is decidedly preferable to sow just before a rain: the seed will then come up quick, grow rapidly, and probably escape the fly; when that which is sown and comes up in dry weather, will most likely be destroyed. In rich old gardens sow as late as the 20th of August, and even the 1st of September, to avoid the worms.—Give water to such plants as require it, but let it always be done at evening or early in the morning.—Dry Sweet Corn for Succotash in the winter; when suitable for eating parboil the ears and cut the corn off the cobs; spread it on sheets and dry it in the sun.—Cut Marjoram and other Sweet Herbs.

sheets and dry it in the sun

Speak gently ! He who gave his life
To bend man's stubborn will,
When elements were in fierce strife,
Said to them, " Peace be still !"

MOON'S CHANGES.

D. H. M.

Third Qu'r, 7 8 43 even.
New Moon, 15 9 14 morn.
First Qu'r, 22 1 18 morn.
Full Moon, 29 10 22 morn.

M	W	☉	☿	♂	♂	♂	S
		H. M.	H. M.	H. M.			
1	SU	4 54	7 17	8 40			
2	M	4 55	7 16	9 7			
3	Tu	4 56	7 15	9 32			
4	W	4 57	7 14	9 56			
5	Th	4 58	7 13	10 19			
6	Fr	4 59	7 11	10 43			
7	Sa	5 07	10 11	8			
8	SU	5 17	9 11	37			
9	M	5 27	7	morn.			
10	Tu	5 37	6 0	11			
11	W	5 47	5 0	51			
12	Th	5 57	3 1	40			
13	Fr	5 67	2 2	37			
14	Sa	5 77	1 3	42			
15	SU	5 86	59	sets.			
16	M	5 106	58	8 3			
17	Tu	5 116	56	8 34			
18	W	5 126	55	9 3			
19	Th	5 136	53	9 32			
20	Fr	5 146	52	10 3			
21	Sa	5 156	50	10 37			
22	SU	5 166	49	11 16			
23	M	5 176	47	morn.			
24	Tu	5 186	45	0 1			
25	W	5 196	44	0 53			
26	Th	5 206	42	1 51			
27	Fr	5 216	41	2 53			
28	Sa	5 226	39	3 58			
29	SU	5 236	37	rises.			
30	M	5 246	36	7 35			
31	Tu	5 256	34	7 59			

Calendar of Gardening.

Continue to use the hoe among growing crops.—Pull up weeds which have been neglected, and carry them off to prevent the shedding of the seeds on the ground. Hoe and earth up Cabbages.—Sow Turnips as recommended last month—Gather early Onions.—Pick Cucumbers for pickling, as fast as they grow to the right size, and be careful not to allow any to go to seed, or the vines will stop bearing.—Begin to earth up Celery, and continue to earth up a little at a time, as it grows : the soil should be broken fine in a dry day and drawn around the stems while they are held together with the hand, taking care that none falls into the heart of the plants. The only object in earthing is to blanch it, which may be accomplished in three or four weeks. The outer stems should be pretty well grown, and the roots well supplied with moisture, before the earthing up is commenced, because water does not readily penetrate afterwards, and without water Celery can never grow very large.—Late Celery should not be earthed up too soon, as it not only retards its growth, but impairs its keeping through the winter.—Parsley which is very thick may be cut over close to the ground.—Sow Cauliflower thinly, about the 25th, for keeping in cold-frames over the winter, to be set out in the spring for heading.—The more the gardener stirs the soil between his crops in dry weather, the less water they require.—Cut Sage and spread it thinly in the shade.

FOR THE SOUTH. Let it be understood that it is needless to sow or transplant until after a rain, unless irrigation is available, without watering and shading.—Plant out Cabbages, Cauliflower and Broccoli.—Sow Turnips, Onions, Fall Radishes, Early Horn Carrots, Beets, Parsnips, Salsify, Lettuce, Endive, Spinach, in several sowings.—Transplant Celery.—Plant a few Peas and Snap Beans.—More

than one sowing of all these seeds should be made, to insure success.—This month in New Orleans is the commencement of fall gardening.

Speak gently ! 'tis a little thing
Dropped in the heart's deep well,
The good, the joy, which it may bring,
Eternity shall tell.

MOON'S CHANGES.

A. M. P. M.

Last Qu'r. 6 1 50 even.
New Moon, 13 5 54 even.
First Qu'r. 20 8 33 morn.
Full Moon, 28 1 41 morn.

M W O T S D r

A. M. P. M. A. M.

1 W	5	26	6	32	8	21
2 Th	5	28	6	30	8	44
3 Fr	5	29	6	29	9	9
4 Sa	5	30	6	27	9	36
5 SU	5	31	6	25	10	7
6 M	5	32	6	24	10	44
7 Tu	5	33	6	22	11	28
8 W	5	34	6	20	morn.	
9 Th	5	35	6	19	0	20
10 Fr	5	36	6	17	1	21
11 Sa	5	37	6	15	2	28
12 SU	5	38	6	13	3	41
13 M	5	39	6	12	sets.	
14 Tu	5	40	6	10	7	2
15 W	5	41	6	8	7	31
16 Th	5	42	6	6	8	1
17 Fr	5	43	6	5	8	36
18 Sa	5	44	6	3	9	14
19 SU	5	45	6	1	9	58
20 M	5	47	5	59	10	48
21 Tu	5	48	5	57	11	45
22 W	5	49	5	56	morn.	
23 Th	5	50	5	54	0	46
24 Fr	5	51	5	52	1	49
25 Sa	5	52	5	50	2	53
26 SU	5	53	5	48	3	56
27 M	5	54	5	47	rises.	
28 Tu	5	55	5	45	6	25
29 W	5	56	5	43	6	48
30 Th	5	58	5	41	7	12

Calendar of Gardening.

The hues of Autumn begin to appear during this month ; and before its expiration the labor in the garden will commence drawing to a close.—Hoe and weed Turnips and Ruta Baga.—Hoe and earth up late Cabbages.—Earth up Celery.—Sow prickly seeded Spinach, for winter and spring use.—Sow hardy Lettuce in a sheltered place, to remain out during winter, covered with evergreen branches or straw.—Sow Corn Salad.—Pull Onions when the tops have fallen down, and spread them on the ground a few days to mature ; strip the tops off about an inch long and spread them on a floor under cover.—Look out for frost and secure your Winter Squashes before they are injured. Gather Cucumbers and Mangoes for pickling before they are too much grown.—Frost takes effect more readily on roots that have been dug up, than on those which are left in the ground ; therefore either give your Beets, Carrots, and Parsnips complete protection, or let them remain as they are.—Clean off decayed crops ; and remove all the trash to your compost heap or pig pen.—Make Tomato Ketchup.—Towards the end of this month, or early next, is a good season to increase all kinds of herbaceous plants, by separating the roots ; but it should be done in cloudy or wet weather.—All the principal sowings and plantings necessary this year must be finished this month.—Sow Flower Seeds—Callopsis, Candytufts, Clarkias, Collinsias, Eschotzias, Gillias, Godetias, Larkspurs, Nemophilas Pinks, Philox Drummondii, and some other hardy kinds will grow and blossom stronger in the spring when sown in September or October.

FOR THE SOUTH. Continue to plant and sow as directed last month. Onions may be sown for a general crop. Towards the

last transplant Lettuce and Endive.—Sow Premium Flat Dutch, Drumhead and Savoy Cabbages. September is often very dry. Water when required and take care not to lose any growing crops for the want of proper care.

A LITTLE word in kindness spoken,
A motion or a tear,
Has often healed a heart that's broken,
And often made a friend sincere.

MOON'S CHANGES.

D. H. M.

Third Qu'r, 6 5 52 morn.
New Moon, 13 2 30 morn.
First Qu'r, 19 7 12 even.
Full Moon, 27 7 10 even.

M	W	☉	☽	D	r
		H. M.	H. M.		H. M.
1	Fr	5 59	5 40	7	39
2	Sa	6 05	5 38	8	7
3	SU	6 15	5 36	8	41
4	M	6 25	5 34	9	21
5	Tu	6 35	5 33	10	9
6	W	6 45	5 31	11	4
7	Th	6 55	5 29	morn.	
8	Fr	6 75	5 28	0	7
9	Sa	6 85	5 26	1	16
10	SU	6 95	5 24	2	29
11	M	6 105	5 23	3	45
12	Tu	6 115	5 21	sets.	
13	W	6 125	5 19	5	58
14	Th	6 145	5 18	6	31
15	Fr	6 155	5 16	7	8
16	Sa	6 165	5 15	7	50
17	SU	6 175	5 13	8	40
18	M	6 185	5 11	9	36
19	Tu	6 195	5 10	10	37
20	W	6 215	5 8	11	41
21	Th	6 225	5 7	morn.	
22	Fr	6 235	5 5	0	45
23	Sa	6 245	5 4	1	48
24	U	6 265	5 2	2	50
25	M	6 275	5 1	3	50
26	Tu	6 284	59	4	50
27	W	6 294	58	rises	
28	Th	6 314	57	5	41
29	Fr	6 324	55	6	8
30	Sa	6 334	54	6	41
31	SU	6 344	53	7	19

Calendar of Gardening.

The sowing season being over, the principal operations this month will consist in gathering and securing fall crops.—Hoe and earth up Celery in dry weather.—Hoe and earth up late sown Cabbages, Cauliflower and Broccoli.—Weed and thin late Spinach, leaving the plants four or five inches asunder.—Gather Pumpkins and Winter Squashes, and expose them a few days to the sun and air before they are stowed away.—Begin to dig and secure Beets and Carrots.—Take up a winter supply of Parsnips and Salsify, leaving in the ground those intended for spring use, to be dug as soon as the frost is out.—After Asparagus stalks turn yellow, cut them close to the earth; clean them off the bed and spread on a good coating of manure to be forked in next spring.—Towards the end of the month prepare cold-frames for protecting through the winter the Cauliflower, Cabbage and Lettuce plants raised from seed sown late in August or early in September; give them light and air in mild days throughout the winter; line the outside of the frame and cover the top in cold weather so as to keep out the frost. Pickle Red Cabbage.—Make Sour Kront. Horse Radish may be dug up for use; grate and preserve it in vinegar for winter consumption.—Take up Cauliflowers and set them out in a cellar.—Sow Flower Seeds of the kinds directed last month. Comstock, Ferre & Co. have a splendid assortment, which they offer to send in collections *postage free*, see Advertisement.

FOR THE SOUTH. Sow Artichokes and dress Artichoke beds; take away all the suckers but three to each stalk, open their roots, lay about them new earth, and a large quantity of manure. The suckers may be planted out for a new crop. Sow Onions, Early Cabbages, and continue to sow all the kinds directed in September. Plant more Early Peas. Sow Spinach for

winter use. Put out Onion sets, Garlic and Shallots. Earth up Celery and cultivate advancing crops

A word—a look—has crossed to earth,

Fall many a budding flower,

Which had a while but owned its birth,

Would bless life's darkest hour

MORNING CHANGES.

D. H. M.

Tide of Qu'r. 4 7 57 even

New Moon, 11 11 37 morn

First Qu'r. 18 9 44 morn

Full Moon, 26 1 57 even

M	W	Q	r	Q	S	D	r
		D. H. M.		D. H. M.		D. H. M.	
1 M	6	36	4	51	8	3	
2 Tu	6	37	4	50	8	55	
3 W	6	38	4	49	9	51	
4 Th	6	39	4	48	10	59	
5 Fr	6	41	4	46	morn.		
6 Sa	6	42	4	45	0	8	
7 SU	6	43	4	44	1	20	
8 M	6	45	4	43	2	34	
9 Tu	6	46	4	42	3	50	
10 W	6	47	4	41	5	8	
11 Th	6	48	4	40	sets.		
12 Fr	6	50	4	39	5	30	
13 Sa	6	51	4	38	6	26	
14 SU	6	52	4	37	7	24	
15 M	6	53	4	36	8	23	
16 Tu	6	55	4	35	9	28	
17 W	6	56	4	34	10	34	
18 Th	6	57	4	33	11	39	
19 Fr	6	58	4	33	morn		
20 Sa	7	0	4	32	0	42	
21 SU	7	1	4	31	1	43	
22 M	7	2	4	30	2	43	
23 Tu	7	3	4	30	3	42	
24 W	7	4	4	29	4	42	
25 Th	7	6	4	29	5	42	
26 Fr	7	7	4	28	rises.		
27 Sa	7	8	4	28	5	18	
28 SU	7	9	4	27	6	6	
29 M	7	10	4	27	6	50	
30 Tu	7	11	4	27	7	47	

Calendar of Gardening.

Gather the fruits of your labor in the garden before they are frozen fast in the ground.—Take up and preserve Cauldages, Carrots, Turnups and Ruta Bagas.—Take up Celery from the trenches in dry weather and pack it away in boxes of dry sand in a warm cellar, leaving the top and leaves open to the air.—Sow Asparagus, Rhubarb, Sea Kale and Dill, to come up in the spring.—Cover Spinach, Lettuce and Parsley with cedar branches or other evergreens for winter protection; if these cannot be had, use straw litter.—Plants are injured a great deal more by freezing and thawing often than by steadily cold weather.—Clayey and heavy soils are benefited by being left in a rough state, but light sandy ground should lay flat through the winter.—Collect all your bean-poles and pea-brush together, and place them away under cover, to prevent their rotting.—Throw up a heap of soil for hot-bed use.—Whatever out-door work remains unfinished must with all convenient dispatch be completed this month.

THE FOLLOWING TABLE SHOWS THE QUANTITY OF SEEDS USUALLY SOWN TO AN ACRE.

Beans,	11 to 2 bu.	Red Clover	10 lbs.
Pens,	11 " 2 "	White Clover,	6 "
Guano,	6 " 8 lbs.	Timothy,	15 "
Carrots,	2 " 24 "	Red Top,	14 "
Turnups,	4 " 5 "	Orchard Grass,	14 "
Beets,	6 " 8 "	Blue Grass,	10 "
Turnips,	4 " 1 "	Luzerne,	10 "

For the South. A few Pens may be planted this month, but the general crop had better be deferred until December.—Put out Onion sets.—Transplant Cabbages, Lettuces, Onions and Leeks.—Plant English Beans.—Continue to sow, transplant and cultivate as directed last month.—Sow Lettuce and Early Cabbage in beds that can be protected from frost.—Vacant ground should now be well manured and dug, to be ready for planting.—Asparagus roots may be put out this month and next.—Burr up Celery.—Sow hardy Flower Seeds: see list in the Northern Calendar for September.—Transplant Fruit Trees, Cauldages, Onions, Lettuces and Leeks.

Then deem it not an idle thing,

A pleasant word to speak :

The face you wear, the thoughts you bring,

A heart may heal or break.

MOON'S CHNGES.

D. H M.

Third Qu'r, 4 7 38 morn.

New Moon, 10 10 48 even.

First Qu'r, 18 3 55 morn.

Full Moon, 26 8 26 morn.

M	W	☉	r	☿	s	D	r
		H. M.		H. M.		H. M.	
1	W	7	12	4	26	8	50
2	Th	7	14	4	26	9	56
3	Fr	7	15	4	26	11	5
4	Sa	7	16	4	26	morn.	
5	SU	7	17	4	25	0	16
6	M	7	18	4	25	1	28
7	Tu	7	19	4	25	2	42
8	W	7	19	4	25	3	58
9	Th	7	20	4	25	5	16
10	Fr	7	21	4	25	sets.	
11	Sa	7	22	4	25	5	2
12	SU	7	23	4	25	6	2
13	M	7	24	4	26	7	8
14	Tu	7	25	4	26	8	16
15	W	7	25	4	26	9	24
16	Th	7	26	4	26	10	29
17	Fr	7	27	4	27	11	32
18	Sa	7	27	4	27	morn.	
19	SU	7	28	4	27	0	33
20	M	7	28	4	28	1	33
21	Tu	7	29	4	28	2	32
22	W	7	29	4	29	3	32
23	Th	7	30	4	29	4	33
24	Fr	7	30	4	30	5	34
25	Sa	7	31	4	31	6	34
26	SU	7	31	4	31	rises.	
27	M	7	31	4	32	5	40
28	Tu	7	32	4	33	6	42
29	W	7	32	4	34	7	48
30	Th	7	32	4	34	8	57
31	Fr	7	32	4	35	10	7

Calendar of Gardening.

A select list of seeds for a Family Garden,
grown by COMSTOCK, FERRE & Co.

Early China Dwarf Beans.

Horticultural Pole Beans.

Early Blood Turnip Beet.

Smooth Long Blood Beet.

Early York Cabbage.

C., F. & Co's Premium Dutch Cabbage.

Long Orange Carrot.

New Silver Giant Celery.

Curled Peppergrass.

Early Frame Cucumber.

London Long Green Cucumber.

Large Sweet Corn.

Royal Cabbage Lettuce.

Green Citron Melon.

Mountain Sweet Watermelon.

Wethersfield Large Red Onion.

New Danvers Yellow Onion.

Long Smooth Parsnip.

Early June Peas.

Large White Marrowfat Peas.

Curled Parsley.

Short Top Long Scarlet Radish.

Early Bush Crookneck Squash.

Autumnal Marrow Squash.

Large Red Tomato.

Red or White Strap-leaved Turnip.

Sage.

Sweet Marjoram.

There are other varieties of some of the kinds, fully equal to those included in the above list; but none better for quality and productiveness combined. Persons who have a peculiar taste, desire a greater variety, or wish to grow the *very earliest*, can make their own selection from our Descriptive Catalogue attached.

For THE SOUTH. The principal crop of Peas should be planted in this month, and the earlier the better.—Onion sets may still be planted.—Sow Cabbages, Lettuce, Radishes, Parsnips, Carrots, Turnips, Beets, Spinach, Parsley.—Prepare hot-beds for Egg Plants and Tomatoes.

In conclusion, if you have followed our advice, you have had a constant supply of fine vegetables and now have a good assortment laid up for the winter.

THE VEGETABLE GARDEN.

THE GARDEN is the most important appendage to the mansion or the cottage. It produces many of the substantial comforts, and some of the most refined luxuries of human sustenance. Its cultivation furnishes a source of health, pleasure, and economy, which may be enjoyed by every industrious owner of a few rods of ground, who can devote a little time between his hours of business or labor to this delightful employment. If his occupation and the extent of his inclosure will not allow him to indulge his taste for fruits and flowers, he may take much pleasure, and derive great profit, from the management of the vegetable garden alone.

To render the task agreeable and more profitable, we have given, in a condensed form, the results of our observations during the many years that we have been engaged in growing seeds; and having, at different times, raised numerous American and foreign varieties, for the purpose of selecting an assortment of the purest vegetables, best suited to the use for which they are grown, we have fixed upon certain qualities which we seek for among the different kinds.

In the *Blood Beet*, we always look for deep color, smooth, handsome form, small top, and sweet, tender flesh. In the *Orange Carrot*, small top, smooth root, and deep orange color. In the *Cabbage*, short stump, large compact head, with but few loose leaves. In the *Cucumber*, straight, handsome form, and dark green color. In the *Lettuce*, large, close head, pleasant flavor, with the quality of standing the heat without soon running up to seed. In *Sweet Corn*, long ears, very shrivelled kernels, filled over the end of the cob. In the *Canteloup Melon*, rough skin, thick, firm flesh, and high flavor. In the *Water Melon*, thin rind, and bright red core. In the *Onion*, thick round shape, deep color, mild flavor, and good keeping quality. In the *Parship*, small top, long, smooth root, sweet flavor. In the *Pea*, low growth, full pods, and large tender peas, rich flavor. In the *Scarlet Radish*, deep color, small top, clear root, and quick, free growth. In

the *Squash*, medium size, dry, fine grained, deep-colored flesh. In the *Turnip*, handsome form, small top and tap root, sweet, crisp flesh.

Many varieties have the merit only of being the earliest; some are esteemed for their adaptation to a particular season, and others are highly prized for their productiveness, or for their excellent quality.

Those who have never seen better sorts than they possess, suppose they are of the first quality, when they may be very inferior, and almost worthless compared with the finest varieties. It is as easy to cultivate good vegetables as poor ones, while the difference in quality and productiveness is sometimes incomparable.

It is the object of Horticultural Societies, by their exhibitions, to disseminate correct knowledge and taste, but we have many times been surprised at the ignorance of the relative merits of the different culinary vegetables, displayed by their committees in awarding premiums. Instead of selecting the purest and handsomest specimens of a variety of suitable size for the table, it has been the practice too often to give the preference to the largest, without much regard to shape, color, or quality.

From the descriptions in our Catalogue, the uninformed may easily make a selection which will combine the most good qualities, and which, if carefully grown, will supply the table in any climate with the choicest productions of the season. Our directions for cultivation are necessarily short, but they may be relied on as *practical*, and will be found sufficient for the most inexperienced, with the aid of a little reflection, and the exercise of common sense.

The *size* of a garden should depend upon the means, requirements, leisure, and taste of the proprietor. The *form*, when practicable, ought to be oblong or square. The best *situation* in a northern climate is an exposure to the south or southeast, sheltered from the northwest by a tight fence. The best *soil* is a deep, rich, sandy loam, dry and friable enough to admit of culture soon after a rain, and adhesive enough to stand a drought.

The *ploughing and spading* should be done a full spade deep, and all lumps thoroughly broken and made fine by *harrowing and raking*.

In *laying out* a garden, the proprietor may consult his own taste and fancy, but he will find it the most convenient to have the main alley through the centre, if the garden is square or wide; and on one side, if it is long and narrow. A very large garden may have an alley all around it, leaving a border six to eight feet wide next the fence for currant bushes, plum trees and other small fruits, but no large trees should be allowed to stand in the borders, nor trees of any size suffered to grow in the body of it. Good vegetables cannot be grown in the shade. To mark out the beds and drills, run off the *line* and strain it where it is desired to commence; *adjust the marking rake* to the width required, draw the outside

tooth carefully by the line, and follow back and forth in the last mark till completed. The drills ought to run back from the main alley at right angles. A garden laid out with regularity in straight rows will always present an agreeable appearance, when stocked with choice vegetables and kept neat.

GARDEN IMPLEMENTS.

The *Wheel-barrow* is useful for removing stones and trash in clearing off the ground, bringing on manure, and for many other purposes about the house and garden. It should be light, well made, and kept painted.

The *Spade* is the most common garden tool. Those with long handles are the handiest, requiring less stooping in the operation of spading; and they are more convenient for beating the ground after sowing. It should be thin and sharp, and kept bright to work clean and easy.

Rakes are made of different sizes. The one for leveling and preparing ground should have ten iron teeth, two inches apart, and three inches long, with a handle six and a half feet long, braced with iron. A small rake with eight teeth an inch and a half apart, will be suitable for clearing weeds from drills of growing vegetables.

Hoes are of various shapes, widths, and sizes. A large and small one of the goose-neck form, will answer for most purposes. Choose those of the best manufacture, light, clean, and bright, and keep them so.

Reel and Line. The Reel may be made of wood, though iron is preferable. When made of wood it consists of a square frame with projecting top and bottom pieces, with holes through the centres to insert a stake. It is turned by one of the sides extending through the top piece for a handle. A shorter stake, or the *dibble*, will do for the other end of the line. Common three-cord twine, about a quarter of an inch thick, is the most suitable for the line.

Marking Rake. This is a very convenient implement used in connection with the reel and line, for laying out drills, beds, and all parallel lines. To construct one, make the head three feet ten inches long by two inches square. Bore four three-quarter inch holes fourteen inches apart, commencing two inches from the end; one hole in the centre, and holes at twelve, fifteen, and eighteen inches each side of it. Make the teeth six inches long, an inch thick, and round them off at the points. Secure them with a pin at the top, so that they can be easily changed and adjusted to the different widths. The handle should be six feet long.

The *Sowing Tube* is used for sowing seeds in drills. It is

merely a tin tube an inch in diameter, and three feet six inches long, with a funnel top. The seed is sown into the top with the hand, while the bottom end is drawn along the drill. A little practice in working the fingers will enable the operator to distribute the seeds very evenly. It answers very well for Beet, Parsnip, and such like rough seeds.

Drill-Barrows for sowing Onion, Turnip, Radish, and all smooth seeds, may be purchased at the Agricultural Warehouses in all the large cities. A simple and cheap machine called Merchant's Drill-Barrow, with a little improvement, will do the work very well. By removing the coulter, it may be used for covering and rolling seeds in drills, which are sown by hand or with the tube.

The *Dibble* is an instrument for transplanting. It is generally made of an old shovel handle, about eighteen inches long, sharpened to an obtuse point.

The *Transplanting Trowel* is a concave trowel rounded at the point, used for removing plants with the earth attached. If the operation is well performed, transplanting may be done with it in dry weather with perfect success.

Manure Fork. Select the best make, with four strong tines. It will be required for forking over the Asparagus bed, and for loosening the ground about perennials.

Pull Fork. One with four teeth is preferable. It will take the place of a pronged hoe, and be useful for hauling out potatoes, and many other purposes.

The *Watering Pot* should be made to hold a pailful. If it has but one rose, that should be pierced fine. Paint it inside and out, and it will last three times as long.

Hand frames for forwarding Cucumbers and protecting them from frost and bugs, may be very cheaply made, five inches deep and a foot square, by covering them with cotton cloth instead of glass, and brushing it over with oil once a year.

Hot-bed. Those who are fond of gardening may find it to their advantage to have a hot-bed for starting early plants. Choose a warm dry spot the south side of a tight fence, and commence making the bed about a fortnight before the opening of spring. Take manure from the horse stable, mixed with straw litter which has been thrown into a heap and begun to heat; arrange it in the form of a frame or box, six inches wider every way, and eighteen inches deep; level it off, place the frame upon it, and press it down close all around. Fill in four to six inches of fine rich loam, which was placed under cover in the fall, and kept dry for that purpose; put on the lights, and in three or four days it will be warm enough to sow. A frame five feet wide and six feet long, covered with two sashes, will be sufficient for a common garden. The south side should be one foot, and the north or back side, one foot and a half high. It will be necessary to raise the top of the sashes occasionally, to give air to harden the plants; and in a very

hot sun, to shade or take off the lights altogether, to prevent burning them up.

A *Tool Room* for Garden Implements is indispensable in every well-ordered establishment, where the tools should always be deposited when not in use, taking care to wipe every article clean and bright when put up. Oil the handles of spades, hoes, rakes, &c. once a year; put every thing in perfect repair, and supply all deficiencies before the commencement of gardening.

"Have a place for every thing, and every thing in its place."

MANURES.

THERE are many kinds of manures, and different modes of applying them. The manure from cows, and all animals that chew the cud, is considered cold, and suited to a light soil; that of horses, hogs and poultry is hot, and best suited to a cold, heavy soil. All new and fresh manure engenders heat during fermentation, and has a tendency to lighten the soil, while old, rotten manure is thought to render it more compact and firm. A thick coat of hog-pen or barn-yard dung spread on a garden and turned in every spring, will enrich, warm and lighten the ground more and better than any application of any other manure.

Salt, at the rate of six bushels to the acre, sowed on in the spring, away from the salt water spray, near the sea-shore, not only promotes fertility, but is very useful in destroying worms and slugs.

Wood Ashes, leached or unleached, may be used as a top dressing with decided benefit to most growing vegetables, especially Onions and Turnips.

Plaster of Paris, sown upon the growing crop, is good for Turnips, Beans, Cucumbers, and all broad-leaved plants.

Lime facilitates the decay of vegetable substance, and is best suited to a sour, heavy soil. It ought never to be mixed with animal manure, as the one will destroy the efficacy of the other.

Guano is too powerful to be used alone with safety, and must not be allowed to come directly in contact with seeds or plants. It may be mixed with ten parts loam, or coal dust, and scattered very thinly around growing vegetables, and dug in just before a rain; or it may be steeped in the proportion of one pound to ten gallons of water, and the liquid applied once a week; but it should be remembered that it is almost sure destruction to anything newly transplanted. Its effects are most favorable in *moist seasons*.

Poudrette is a very active manure to start early crops, but is not lasting. It is necessary to apply it the second time, and it should always be placed under the surface.

Liquid Manure from the yard or the drainage of the dung-hill should be diluted with water before it is applied to growing plants, otherwise it will be apt to burn them.

Compost is a mixture of earths and animal manures, ashes, soot, charcoal dust, lime, salt, plaster, urine, straw, weeds, and various other fertilizing substances in different combinations, thrown into a heap to remain till decomposed. It forms a very excellent manure for many kinds of garden vegetables. Compost heaps and all other manures ought to be kept under cover.

SOWING SEEDS, TRANSPLANTING, WATERING, INSECTS, &c.

SOWING SEEDS. Warmth and moisture are essential, and seclusion from light is favorable to germination. The first care in sowing seeds should be to choose suitable ground, the proper season and state of the earth, and then to place them at such depth beneath the surface as will ensure the requisite supply of moisture. In general, all seeds should be covered more or less according to their size and the advance of the season; late sowings requiring to be covered the deepest. The smallest seeds ought to be sown very shallow, in fine earth, and rolled or beaten firmly with the back of a spade.

The freshest seeds of some kinds often fail, from unseasonable and improper management in sowing, and other circumstances affecting their vegetation. When sown too early or too deep while the ground is cold, wet and heavy, they are apt to rot; when sown too shallow in a dry time, and late in the season, there may not be sufficient moisture to sprout them, or they may be dried up by dry winds or a hot sun after they have germinated. Sometimes insects destroy them before or immediately after their appearance above ground, so that the complaints occasionally made by the inexperienced are not always to be attributed to the quality of the seeds.

Soaking in warm water twenty-four to forty-eight hours, and then rolling in plaster or ashes will very much hasten the germination and growth of hard and dry seeds. It will give the plants a start of the weeds, and lessen, a good deal, the labor of cultivation.

To Prove Seeds, place a few in a pot of earth and keep it warm and moist. Onion seed tied in a cloth and put first into cold water and boiled half an hour, will sprout in that time if it is good.

Transplanting should be done just at evening, or immediately before or soon after a rain. Make the holes with the *dibble*, hold

the plant in one hand, and with the other bear the point of the dibble into the ground by the side of it, and press the earth closely to the *bottom* of the root, taking care not to bury the heart of the plant. Give each plant a gill of water about the root, and shade with a shingle in sunny weather.

Watering. The best time to water plants is at sunrise or just at evening, and always use rain water when to be had. If well water must be used it should be exposed to the sun a day or two, until it rises to the temperature of the air before it is applied. Water may be given to the roots at any time, but never should be sprinkled over the leaves in a hot sun.

Thinning is a very important operation. Every thing ought to be thinned very early, even in the seed leaf if the plants stand too close. Another thinning may be necessary when they are more advanced, to give them room to grow stocky. All plants, when crowded together, run up tall and slender; such never succeed so well.

Hoeing and Weeding. It ought to be remembered that it is the easiest to kill weeds when they are small, and that it is better to hoe for this purpose soon after, rather than immediately before, a rain. It ought also to be remembered that Cabbage, Cauliflower and Brocoli require *deep*, and that Onions and Turnips require *shallow* hoeing; that Beets, Carrots and Parsnips will put out side roots and grow scraggy if hoed deep after they are nearly grown; and that *earthing up* is more proper for fibrous, than for carrot-rooted plants.

The Rotation of Crops ought to be regarded in planting a garden. Fusiform or carrot-shaped roots should follow fibrous-rooted ones, and every succeeding crop should be as dissimilar to the preceding one as possible. Onions are an exception.

Frost. Plants are more liable to be injured by frost in a moist than in a dry atmosphere, and immediately after the ground has been worked. When frozen, plants may sometimes be preserved from destruction by a copious watering in the morning, before they are exposed to the sun. In the spring and fall, when frosts are to be expected, look out for a severe one the first night after the clearing up of a rain storm, with the wind changing to west or north-west.

Insects are troublesome and sometimes very destructive. Plaster of Paris, snuff, ashes or soot sifted on Cucumbers and Squashes when wet with dew, is very useful against the *striped bug*. Lime, road dust, ashes, or snuff, scattered over young Cabbages and Turnips, will sometimes prevent the ravages of the *black fly*. Rolling the ground after sowing, answers a good purpose, but the best preventive is a thorough sprinkling of the plants just at night, with whale oil soap-suds in proportion of one pint of soap to seven and a half gallons of water. This will kill *cabbage lice* and all other *aphides*. It is sure death to all tender insects when forcibly applied with a garden syringe or rubbed on with a brush. For

the want of the whale oil soap, strong soft soap suds may be used. Salt is sometimes sown in the drills with Onion seed to drive away the *grub*. Fine salt strewn broad-cast over Cabbages is the best application we know of for destroying the little *green cabbage worm*. Ducks, chickens and toads destroy a host of insects, when suffered to inhabit the garden.

The following table shows the number of plants to the acre at any of the distances mentioned :

Distances apart.	No. of plants.	Distances apart.	No. of plants.
1 foot	43,560	5 feet	1,742
1 $\frac{1}{2}$ "	19,360	6 "	1,210
2 "	10,890	9 "	537
2 $\frac{1}{2}$ "	6,969	12 "	362
3 "	4,840	15 "	193
4 "	2,722	18 "	134

TO BE REMEMBERED.

To take time by the foretop in every thing which relates to gardening, and never omit what ought and can be done to-day, till to-morrow. It is hard to catch up in gardening when once behind.

To choose the best seeds to be had, and if possible obtain them from responsible seedsmen.

Never to buy *cheap seeds* because they cost less. They may be the *dearest* in the end.

To select the best implements, brand them with your name, and never let them *get rusty*.

To stir the soil often during drought to prepare it more readily to receive and retain moisture from the atmosphere, and to prevent the plants from being stunted in growth.

Never to work the ground when it is wet and heavy. It renders it compact and lumpy during the whole season.

To perform every thing in the best manner, and to complete one operation before commencing another.

Never to suffer weeds to encumber the growing crop, or to go to seed ; nor allow any sort of trash to remain in the alleys or plots to mar the *neat and clean* appearance of the garden.

"Plough thorough and deep, while sluggards sleep,
And you shall have corn to sell or to keep."

Poor Richard.

DESCRIPTIVE CATALOGUE,

WITH GENERAL DIRECTIONS FOR CULTIVATION.

THE directions for cultivation are adapted more particularly to the climate of CONNECTICUT, between the latitudes of 41° and 42°, but may be applied north or south of these parallels, throughout the Union, by making suitable allowance for the difference of temperature. The names of the seasons are used instead of the months. By *Spring* is meant when *vegetation starts*, when buds begin to swell, and leaves to put forth; and, although this takes place in the Southern States in the winter months, it is then the proper time to commence the operations of gardening. Spring begins in CONNECTICUT, about the first of April; MASSACHUSETTS, about the middle of April; central part of NEW YORK, VERMONT, and NEW HAMPSHIRE, about the last of April; NEW YORK CITY, and central PENNSYLVANIA, about the last of March; PHILADELPHIA and NEW JERSEY, about the middle of March; WASHINGTON CITY, about the first of March; RICHMOND, Va., towards the last of February; CHARLESTON, S. C., about the middle of February; NEW ORLEANS and MOBILE, near the middle of January; and all places in the Mississippi Valley, a little earlier on the same parallels of latitude.

ARTICHOKE.

Fr. *Artichaut*.—Sp. *Cinauco*.—Ger. *Artischoke*.

A PERENNIAL from Barbary and the south of Europe, cultivated more for luxury than for profit. The flower-heads, in their immature state, contain the edible part, which consists of that portion of the fleshy receptacle which adheres to the scales, called the *bottom*. It is entirely different from the *Jerusalem Artichoke*, producing tubers, which are so difficult to eradicate when once introduced into a garden. There are two principal varieties.

The Globe, erroneously called *Green Globe* in the catalogues, produces large globular heads, of a dusky-purple color, with thick and succulent scales. It is the best for general culture.

The French, or *Green*, has a large oval head, with open scales, and is much esteemed in Paris.

It is often propagated by offset suckers, separated in the spring. When raised from seed, sow early in the spring, four inches apart, in rows one foot apart. The next spring transplant to permanent beds, three in a hill, the hills three feet apart each way. It requires a deep, rich loam, and to be protected in winter by hauling earth around the hills, or by a covering of litter. Its cultivation is confined principally to the Southern States.

ASPARAGUS.

Fr. *Asperge*.—Sp. *Esparragos*.—Ger. *Spargel*.

A PERENNIAL, cultivated for the early shoots, which are highly esteemed. There are several names given in some catalogues, which indicate different varieties, but there are only two of distinct character. The kind with reddish-purple shoots, growing close-headed to large size, is more generally cultivated, and is sold under the name of *Giant*. The other variety is of a bright green color, and round top. Either will grow to large size in good soil, with proper management.

Soak the seed twenty-four hours in warm water, and sow very early in spring, thinly, in rows one foot apart, and keep clean by frequent weeding and hoeing. At one or two years old, transplant to permanent beds. Many persons are apt to think the largest of every thing among vegetables is the best, and usually order two or three year old roots; but, in our opinion, good sized *Asparagus* roots of one year's growth are decidedly preferable for making new beds. The ground should be trenched, or dug over two feet deep, burying plenty of manure, and mixing it thoroughly with the soil. Lay out beds four and a half feet wide, and draw three drills, six inches deep and fourteen inches apart, lengthwise of each bed; place the roots in them, one foot apart, in their natural position, and cover four inches deep. A rich sandy loam is most suitable. Every autumn, after clearing off the stalks, spread on a covering of manure, to be forked in, with a good dressing of fine salt, very early in the spring. A new bed should not be cut over before the third year.

A thick, compact head of tender *Asparagus* may be formed by inverting a common wine bottle over a shoot just rising out of the ground, and securing it in that position by three small stakes. The bottle will soon become filled, when it must be broken to obtain the *Asparagus*.

BEANS.

ENGLISH DWARFS. Fr. *Fève de Marais*. Sp. *Haba*. Ger. *Bohn*.

THE English beans are not much cultivated in this country being unsuited to stand the heat of our summers. They grow about three feet high, with thick, angular stems, and have white and black flowers. There are many varieties, but the two following are most in use:

Early Long Pod. Grows about three feet high, with long and narrow pods, closely filled; beans oblong, middle size; a great bearer.

Broad Windsor. This is one of the largest kinds used for the table. The seeds are large, broad and flat. It grows three feet high, and is more cultivated in gardens than any other sort.

Plant as early in the spring as the ground can be worked, two inches apart, in two and a half feet drills. When they are in full bloom, and the lower pods set, pinch off the tops. This will insure the filling of the pods, and hasten maturity. A strong, heavy soil, with a considerable proportion of clay, is preferable. Remember they do not succeed well unless planted very early.

KIDNEY DWARFS, OR SNAPS. Fr. *Haricots nains*. Sp. *Frijoles*.
Ger. *Stambönnen*.

Under this name are classed all the low-growing sorts, called in different catalogues, *Bush*, *Bunch*, *Snap*, *String*, or *French Beans*. They are so extremely sensitive of frost and cold, that it is useless to plant them before the middle of spring, when the ground has become warm and light. Hoe often, to stir the ground, but only when dry, because earth scattered on the leaves, when wet with dew or rain, will rust them, and greatly injure the crop. Plant two to three inches apart, in two and a half feet drills. They do best in light, rich soil.

Early Mohawk. This is considered the hardiest, and on that account to answer best for the first planting. It will endure a light frost without injury, and continues a long time in bearing, if the green pods are gathered often. Pods, pale green, long and flat; seeds, large, kidney-shaped, brown, and purple-marbled.

Early China. A very early and excellent variety, both for snaps and for shelled beans, green and dry. It is a great bearer, and much esteemed in farm cultivation. Pods, medium size and full; seeds, white, with a bright red eye; round oval shape.

Early Yellow Six-Weeks. A small, round oval bean, color dark orange; of dwarf growth; quite early, and a good bearer; used mostly in the pods.

Early Cluster. This is a small, early variety, with dark green leaves and pods. It is very productive, and used both green and dry. Seeds, white, flat kidney-shaped.

Early Valentine. A most excellent sort for snaps only, having round, fleshy pods, which remain a long time brittle and tender. Beans, long, light-red, and salmon-color marbled, sometimes shrivelled; very early, and a good bearer; getting to be very extensively cultivated.

Refugee, or T'housand-to-One. This is a late, round-podded variety, of very strong growth, sometimes called *Purple-speckled Valentine*; beans, brown and purple-speckled. There is a long and an oval-seeded variety; the oval has more round and fleshy pods. Both should be planted in hills, on account of their branching habit.

Large White Kidney, or Royal Dwarf. This is one of the best late kinds; pods, long, and rather flat; beans, white, long, and round kidney-shaped. Excellent green, and equal to any in a dry state. A good sort for field culture.

POLE OR RUNNING BEANS. Fr. *Haricots à rames.* Sp. *Judias.*
Ger. *Slangbohnen.*

All described under this head require poles eight or ten feet long. They are planted at the same time with the dwarf beans, and, like them, require a warm, mellow soil. Stick the poles three feet apart each way, raise a hill, and plant around them six or seven beans; cover one inch deep with light, mellow earth.

Early Dutch Case-Knife is the earliest, with very long, flat pods. It is sometimes used for snaps, but principally shelled. Beans, white, flat kidney-shaped, and very good, green or dry; an abundant bearer.

Large French Soissons. A large white bean, flat kidney-shaped, a little crooked. In growth it resembles the case-knife, except that the pods are not so flat nor so long, and not as early; excellent shelled, green or dry.

Horticultural Cranberry. A medium sized oval bean, light red and cream color, speckled; pods striped with red; used both in the pod and shelled. A standard sort in general cultivation; very productive, and good dry.

White Cranberry. Beans, white, and of the same shape, but smaller than the horticultural; pods rather more round, very tender, and richly flavored; but rather a poor bearer.

Red Cranberry. Color, deep-red; in growth similar to the white, but more productive; the pods are not so tender.

Indian Chief. This variety is not much known, although it is the best of all pole beans for cooking in the pods, which are tender and delicious when the beans are fully grown; beans, nearly round, black; pods, white; a good bearer, but late.

Large Lima. A very large and late bean, forming with the Sieva a distinct class, with broad, rough pods; seeds, white, broad, and rather full. It runs very high, and bears profusely until killed by frost. The beans are very apt to rot when planted too early. After raising the hills higher than for the other sorts, stick the

beans around the poles with the eye downwards, and cover about an inch, lightly, with the hand. This should be done in warm, sunny weather, and after, rather than before a heavy rain. It is the best of all shelled beans. Plant three and a half feet apart.

Carolina, Siera, Saba, or Small Lima. Resembles the Large Lima in growth, but is inferior to it in rich, buttery flavor. It is earlier, more hardy, and more sure to produce a crop. Seed smaller, white, and quite flat.

Scarlet Runner. This and the following are distinct varieties, with dark green leaves, large rough pods, and beautiful flowers. Flowers, bright scarlet, standing out from the foliage in great profusion; seed, very large; kidney-shaped, purple and brown marbled.

White Runner. Like the scarlet, except in the color of the seed and flowers, which are pure white. These two kinds differ from all the others in coming out of the ground with the seed leaves detached. They are both quite ornamental.

B E E T.

Fr. *Betterave*.—Sp. *Remolacha*.—Ger. *Rothe Rube*.

THE Beet in some of its varieties is universally cultivated in this country, even in the smallest vegetable gardens, and is used in all stages of its growth. For early Beets, sow as soon as the ground will admit, in drills fourteen inches apart, and thin to six inches. For winter, sow about the middle of spring. All the varieties succeed best on a deep, rich, sandy loam, and require to be thinned when small, and kept clean from weeds. Soak the seed for the fall and winter crop twenty-four hours in warm water; drain it off, and keep covered till it begins to sprout; then roll it in plaster, and sow immediately in fresh prepared ground. The weeding will be half saved.

Early Flat Bassano. This variety from Italy, is valued here principally for its earliness, coming into use a week or ten days earlier than any other sort. Roots flat, turnip-shaped, light red; flesh, white, circled with rose color; leaves very small, light green, veined with red. It is very tender and juicy, and will grow to good size on light soil, but will not keep through the winter unless sown quite late.

Early Blood Turnip. The standard early sort. Blood red, turnip-shaped, with small top and tap root, very tender, and good for early use and late keeping. It is indispensable in every garden, however small.

Early Yellow Turnip or Orange. Is longer oval shaped than the Blood Turnip; flesh, yellow, very tender and juicy. It keeps well, and will serve for both summer and winter.

Long Blood Red. The common long winter variety. Deep red, grows to large size, mostly in the ground, sweet, tender, and keeps well.

Smooth Long Dark Blood. This fine sort was introduced a few years ago from Germany. It is a long smooth beet, growing to good size, half out of the ground, with few or no side roots; color, dark blood red; top, small, dark red, and upright growth; keeps well. Sow in drills fifteen inches apart, and thin to eight inches. It is apt to be tough when sown too early.

Early Scarcity. A light-red beet, growing much out of ground, to very large size in good soil. It is much like the Mangel Wurtzel, differing from it in being more turnip-shaped, with smaller tops. This and the two following, require to stand one foot apart in two-feet drills, to attain their full growth.

Mangold Wurzel or Scarcity. A large long variety, grown for stock feeding. It stands a good deal out of the ground; color, light red; flesh, white and rose-colored; leaves, green veined with red. It is early, and is sometimes used for the table when young.

White Sugar. This grows to large size, much above ground; roots half long, white; leaves green; considerably grown in this country for feeding, but is inferior to the Mangel Wurtzel for that purpose. In France it is cultivated extensively for the extraction of sugar.

Swiss Chard or Silver. This variety of the Beet, sometimes called *Sea Kale Beet*, is cultivated for its leaf stalks, which are served up much like Asparagus; and for its leaves, cooked like Spinage. If cut often, new and more tender stalks will be reproduced.

To keep Beets through the winter, bury them in long narrow trenches mixed with sand, below frost, or cover them with sand or light earth in the cellar. Beets should not be allowed to wilt. If they once become shrivelled, they will never, like Carrots, recover their firmness and brittle quality.

BORECOLE, OR KALE.

Fr. *Chou Vert.*—Sp. *Breton sin Cabeza.*—Ger. *Grüne Kohl.*

THIS is the general term for that class of the Cabbage tribe which do not head, but are used for greens in their open growth. They stand the winters at the South without any protection. Sow in seed bed about the middle of spring, and when of suitable size, transplant to eighteen or twenty inches apart each way, and cultivate like Cabbages.

Green Curled Scotch is the kind most generally cultivated. It is very hardy, and like the Savoy, improved by a moderate frost.

The stems rise about two feet, and produce an abundance of dark green curled and wrinkled leaves.

Dwarf Curled Kale or German Greens. This variety is more dwarf; leaves, yellowish green, very finely fringed. It makes excellent winter and spring greens, when set out in a light cellar, or otherwise protected from the severity of the weather.

BROCOLI.

Fr. *Brocoli*.—Sp. *Brocoli*.—Ger. *Italianische Kohl*.

BROCOLI is very nearly allied to the Cauliflower, and is generally considered a variety of that delicious vegetable. It is hardy, and more sure to head, but inferior to it in flavor. Sow thinly in seed bed about the middle of spring, and transplant and cultivate according to the directions for Winter Cabbages. The plants in the seed bed are very apt to run up tall and slender, unless they are kept thinned, and free from weeds. When they begin to flower, break the large leaves over the heads to protect them from the sun, and gather them before they commence running up to seed.

Early Purple Cape. This is the best variety for our climate at the North. It produces large, close heads of a brownish purple color, and excellent flavor.

White Cape, being a later sort, should be sown very early in the spring. The heads, when in perfection, are large, white, and compact, and so nearly resemble the Cauliflower, that it is sometimes called Cauliflower Brocoli.

Early Purple and Early White are cultivated a good deal at the South, where they will stand out in the open ground, and continue to head through the winter. Sow in the fall.

BRUSSELS SPROUTS.

Fr. *Chou de Bruxelles*.—Sp. *Col de tallo de Bruselas*.—Ger. *Sprossen Kohl*.

This variety of the Cabbage is but little cultivated in this country. It rises two or three feet high, and produces from the sides of the stalk numerous little sprouts resembling Cabbages, one or two inches in diameter. The leaves, which look like the Savoy, should be broken down in the fall to give the little Cabbages room to grow. They are used for fall and winter greens, and being quite hardy, should be sown and treated like Scotch Kale.

CABBAGE.

Fr. *Chou pomme*.—Sp. *Col*.—Ger. *Wiessen Kopskohl*.

THE Cabbage is one of the most important vegetables, and in some of its varieties is universally cultivated. Many of the names in the catalogues of different seedsmen are synonymous, but there are a few well known standard sorts which have a distinct character, that can be described.

Early York. This is one of the earliest and most valuable of the early varieties, and justly stands at the head of the list. Heads small, rather heart-shaped, firm, very tender, and excellent flavored. The true Early York is of very dwarf growth, with close heads, and may be transplanted fifteen or eighteen inches apart.

Large French Ox-heart. A most excellent variety from France, which is taking the place of many others, to come in after the Early York. It grows low on the stump, and heads very close and firm, with but few loose leaves; color, yellowish green. There is a sub variety of this which is smaller, and nearly as early as the Early York.

Large York, is larger, and two weeks later than the Early York. It endures the heat well, and on that account is much esteemed at the South.

Early Sugarloaf has conical heads, with spoon-shaped leaves; color, bluish green. The heads are not so close and firm as the Large York, nor will it stand the heat so well. It does very well in this climate, but loses its flavor and tenderness late in the season.

Early Drumhead or Battersea. This is a round, flat-headed variety, of excellent quality. It is one of the latest among the early sorts.

Pomeranian. A singular variety known in Europe, but not yet introduced into the catalogues of American seedsmen. Heads uniformly conical, and very solid, even to the extremities of the leaves, which often unite at the top in a twisted form; color, yellowish green.

Large Late Drumhead. This is a large fall and winter variety, with broad, flat, or round heads; very compact, and of a lightish green color. There are so many Cabbages by this name, that it is impossible to describe its exact appearance. It is not uniform among the different seed growers, but whoever possesses a large late kind that will uniformly head well, of a round or flat form, short stump, tender, and good flavored, has a Cabbage with all the good qualities of this variety.

Premium Flat Dutch. A superb large low growing Cabbage of our own growth; heads broad and flat at top, very close and hard, with but few outside leaves; color, bluish green, turning to a purplish tint after being touched with frost. It is a fall and winter variety, tender, and one of the very best to keep. With good

cultivation on moist rich ground, ninety-five in a hundred will head up hard and fine. Sow 10th of May in this latitude. *Ask for Comstock, Ferre & Co's Premium Flat Dutch.*

Large Flat Dutch, or Late Buttersea, is an English variety, cultivated for an autumn crop. It so nearly resembles the English Drumhead in growth and quality, that the two kinds are easily confounded.

Large Bergen, or Great American, is one of the largest and latest sorts, of a lightish-green color, with a short stem. The heads are large, firm, and rather round; very tender, and most excellent flavored. It is a good kind for market and family use. Plants that have not closed when the crop is gathered in the fall, will frequently head during winter, if they are set out in a cellar. It is an American variety, and keeps well.

Green Glazed, is a coarse, loose-headed cabbage, cultivated a good deal at the South, because it is thought to withstand the attacks of the cabbage-worm better than any other variety; color, dark, shining green.

Green Globe, or Curled Savoy, does not make a firm head, but the whole of it, being very tender and pleasant-flavored, is used for cooking; leaves, dark green, and wrinkled. This and the next are very hardy, and improved by frost.

Drumhead Savoy. Grows to a large size; heads, nearly round or flattened like the Drumhead, and quite firm; sometimes heart-shaped; very tender and excellent for winter. The Savoy's approach nearer to the delicious richness of the Cauliflower than any of the other Cabbages. Sow early.

Red Dutch, or Pickling. This is an esteemed sort for pickling. It is also shredded, and eaten raw in vinegar. It grows about medium size, and forms very hard, oblong heads, round at top, and, when pure, of a dark red, or purple color. Sow early, and set out twenty-eight inches by two feet apart.

Kohl Rabi, or Turnip-rooted Cabbage. There are two varieties, the *Green* and the *Purple*, with protuberant stems, swelling out above ground, in the shape of a round Turnip; flesh, white. It combines the flavor of the Cabbage and Turnip. Sow at the same time, and cultivate like the Ruta Baga.

For Cabbages, the ground must be highly manured, deeply dug, or ploughed, and thoroughly worked, to insure good, full-sized heads. A heavy, moist, and fresh loam is the most suitable. The Early sorts are sometimes sown early in autumn, and protected in cold-frames through the winter, and transplanted early in spring; but more generally at the North, they are sown very early in the spring, in hot-beds, or later in the open ground. In the mild climate of the Southern States, where they will stand the winter, they are planted out in the fall. Eighteen inches by two feet apart is the common distance.

The Late, autumn and winter varieties may be sown in seed-bed, from the middle to latter end of spring, (from the first to the mid-

dle of May, in New England.) and transplanted when about six inches high, to twenty-eight inches apart, each way. Shade and water the late sowings in dry weather, to get them up. It is important that the plants should stand thinly in the seed-bed, or they will run up weak and slender, and be likely to make long stumps. If they come up too thick, prick them out into beds four to six inches apart, which will cause them to grow low and stocky. Treated in this manner, the plants will form lateral roots, and they can be removed with the earth attached, in a moist day, without checking their growth. When the weather is hot and dry, the roots of the plants should be dipped in a puddle of loam and water, and transplanted just at evening, giving each plant a gill of water at the root. Cabbages should be hoed every week, and the ground stirred deeper as they advance in growth, drawing up a little earth to the plants each time, until they begin to head, when they should be fairly dug between, and hilled up. After they are partly headed, it is the practice of some gardeners to lay them over on one side. We never discovered that they headed much better for it, though they certainly have done quite as well. Loosening the roots will sometimes retard the bursting of full-grown heads.

Clump-root, is a disease of the Cabbage tribe, affecting the roots, which become distorted, knobby, and monstrously swollen. It is caused by the larvæ of a little weevil, and prevails mostly in old gardens. It is attributed to the too frequent repetition of Cabbages on the same ground, to the character of the manure, and dry weather. Old dry manure, particularly hog-dung, full of insects, is most likely to produce the disorder. It sometimes does not show itself till the plants are half-grown, when there is no remedy. It is indicated by the leaves wilting and flagging in sunny weather. The disorder is not constitutional, but affects Brocoli, Cauliflower, and all kinds of Cabbage, in the same ground. It is avoided by a rotation of crops, change of manure, and deep tillage, turning up to the surface a good portion of the sub-soil.

To avoid the *black fly*, sow in boxes of earth, raised two feet above the ground, which must be kept watered. The plants will be perfectly secure from attack. See *Insects*.

To preserve Cabbages during winter, pull them in a dry day, and turn them over on the heads a few hours, to drain. Set them out in a cool cellar, or bury them, with the heads downwards, in long trenches, in a dry situation. In the Middle States, bury the stump, and part of the head, in the open ground, and place over them a light covering of straw and boards, in severe weather. On the sea-coast, in the Eastern States, Cabbages are effectually protected by a covering of sea-weed.

To make *Sour Krout*, "choose solid Cabbages, slice them across, and place the slices in a barrel, in layers about four inches thick, and strew over each layer a handful of salt, and some Caraway seeds. Press the whole down very closely, and when the barrel is full, place a very heavy weight upon the top. After standing a

week, more or less, according to the temperature, the mass will begin to ferment. When the fermentation is over, the barrel should be headed up."

A great proportion of the cabbage seed sold is imported from England, and we have found, from long experience, that imported seeds of all the *Early* varieties do quite as well, or better, than the American; but *Late* Cabbage seeds, of our own growth, particularly the *Flat Dutch*, *Drumhead*, and *Bergen*, are far preferable in this climate to the best European.

CAULIFLOWER.

Fr. *Chou-fleur*.—Sp. *Coliflor*.—Ger. *Blumenkohl*.

This is a delicate vegetable, of the Cabbage tribe, with long, pale-green leaves, and a close, curdy head, formed of the flower-buds before they shoot up to seed.

Fine Early London. The earliest variety, differing but little from the *Late*, except in coming earlier to a head when sown in the fall.

Walcheren. This is a new Cauliflower from Germany, which, being more vigorous and hardy, is hoped to be better adapted to our climate. There is an *Early* and a *Late* variety.

For the spring or summer crop, sow the early kind here, about the middle of September, and when two inches high, transplant them three inches apart, into a frame, covered with glazed shutters, where they must be protected through the winter; in the spring, transplant to two and a half feet apart. For the late autumn crop, sow the *Late* kind middle of the spring, and transplant like winter Cabbages. In dry weather, water freely, and, as they advance in growth, hoe deep, and draw earth to the stems. After they begin to head, they should be watered every other day. On the approach of frost, those plants which have not headed may be set out in a cellar, where they can be aired in mild weather. In two or three weeks, the strongest will begin to form flower-heads, which will be very tender and delicious.

CARDOON.

Fr. *Cardon*.—Ger. *Kardoner*.

THE Cardoon resembles the Artichoke, but grows to a greater height. The blanched stalks of the inner leaves are used in soups and stews.

Sow early in the spring, in a single row, where they are to stand, and thin them to one foot apart. When the plants have attained their full size, bind them together with straw, or matting, and earth up, like Celery, to blanch.

COLEWORT, OR COLLARDS.

CABBAGE-PLANTS, before heading, are used extensively at the South, for greens, under the name of *Collards*. Any of the early sorts answer well for this purpose, particularly the Early Sugar-loaf. Sow from early in spring, to summer, and thin or transplant to one foot apart. Rape is grown for the same purpose.

CARROT.

Fr. *Carrotte*.—Sp. *Zanahoria*.—Ger. *Mohre*.

THE Carrot is an important vegetable in general cultivation. It succeeds best on a light, sandy loam, made rich by manuring the previous year. In fresh-manured land, the roots often grow pronged and ill-shaped. In Wethersfield, they are sown thinly in drills with the Onions, and grow to very large size after that staple crop is gathered. If it is to be sown late in the spring, soak the seed a day or two in warm water, and mix it with plaster or ashes. It will then come up, in fresh-prepared ground, before the weeds, and the first weeding may be done with but little labor.

Early Horn. This is the only early variety. It is shorter than most of the other sorts, and the tap-root terminates abruptly, giving it a blunt appearance; color, deep orange; fine-grained, and agreeable flavored; top small. It is the best for the table, and will grow very well on thin soil. Sow six inches apart, in fourteen-inch drills.

Long Orange. The standard sort; roots, long, smooth, and deep orange-color; suitable for the table, and for the main field crop. It requires a good deep soil, and to stand eight inches apart, in eighteen-inch drills, to grow to large size.

Altringham. Differs from the Long Orange only in growing a little out of ground, with a green top.

Large White Belgian. Grows one-third out of the ground; roots, pure white, green above ground, with small tops. It is much grown by the French, for soups and seasonings. It will grow to large size on light, rich soils, and is very easily gathered. Though it has been recommended for farm cultivation, it is not so nutritious as the deeper-colored carrots, and does not keep so well.

Large Lemon. This variety grows to larger size at the top than any of the others, but not over two-thirds the length of the Long Orange. Color, light lemon; very productive, and easily gathered; suitable for feeding only.

Blood Red, or Purple. Roots, medium size; color, dark purple; fine-grained, and sweet. It is much esteemed for table use among the French people, at the South, and in the West Indies.

To preserve Carrots during the winter, they should be dug in a dry time, when the roots will come up clean. Let them lie a day in the sun, to dry and wilt a little, and deposit them in small heaps in a cool cellar, secure from frost. They should be examined often, and overhauled, if they begin to sweat. Carrots are very apt to heat when packed away in a large body. We have kept them perfectly well, packed in dryish sand, in long, narrow trenches, below frost. In the same way, again, we have lost nearly all. They must be kept from the wet.

CELERY.

Fr. *Celeri*.—Sp. *Apio*.—Ger. *Sellerie*.

CELERY is one of the luxuries of the garden, and a very profitable vegetable for market. There are several varieties in cultivation. The best are the following:

White Solid, is the variety most commonly grown, clear white, solid and crisp.

Red Manchester, or Rose-Colored, Solid, grows to larger size than the above, and is considered more hardy; stalks, delicate rose color when blanched.

New Silver Giant, or Law's Giant. This we esteem the best in cultivation. It grows to large size, stalks white, round, very crisp, and perfectly solid.

Seymour's Superb White. The difference between this and the Silver Giant can scarcely be perceived. It is not more vigorous in growth, nor any more solid or better flavored.

Turkey, or Prussian, is a very large and solid variety, grows high, and blanches white and handsome.

To have Celery early, it should be sown in hot-bed quite early in the spring and when three inches high, planted out in a well-prepared bed, which must be covered with boards or mats in frosty weather.

For the principal crop, sow early in the spring, very shallow, in a seed bed, which should be beaten lightly with the back of a spade, to settle the earth about the seeds. When the plants are of the above size, thin or prick them out to four inches apart, and when about six inches high, transplant them six inches apart into trenches for blanching. Dig the trenches four feet apart, a foot wide, and ten inches deep. Fill in five or six inches of well rotted manure, and mix it thoroughly half a spade deep with the earth at the bottom. The tops and roots of the plants should be shortened, and the suckers pinched off before they are set. Earth up to blanch two or three times during their growth, holding the leaves close with the hand while the earth is drawn up, taking care that none of it falls into the centre of the plants. A slight sprinkling

of salt applied to the surface of the soil just before earthing up, is decidedly beneficial to this crop. Celery, like Asparagus, is wonderfully improved by superior culture.

CHERVIL.

Fr. *Cerfeuil*.—Sp. *Perifolio*.—Ger. *Gartenkerbel*.

THIS is a warm, aromatic annual, cultivated and used like Parsley. Sow at any time in the spring, in shallow drills one foot apart, and firm the ground with the back of a spade.

CORN SALAD.

Fr. *Mache*.—Sp. *Valeriana*.—Ger. *Ackersalat*.

SOMETIMES called *Fetticus* and *Lambs' Lettuce*; is cultivated as a winter and spring salad. Sow the seed in September, thickly, in shallow drills, and protect through the winter with a slight covering of straw. It requires good soil.

CRESS, OR PEPPERGRASS.

Fr. *Cresson Aenois*.—Sp. *Mastuerzo*.—Ger. *Kresse*.

THE *Curled* is too well known to need any description. The *Broad-Leaved* varies from it only in the leaf, which is large and broad. Sow thickly, in shallow drills, every two weeks throughout the season. Give occasional waterings in dry weather.

Winter Cress, sometimes, but erroneously, called *Water Cress*, is entirely different from the preceding. It is a much larger plant, hardy, and more pungent; seed, gray.

True Water Cress is an aquatic plant, with small oval leaves and prostrate habit. It is cultivated by sowing the seed by the side of running water near springs which are not severely frozen in winter.

CUCUMBER.

Fr. *Concombre*.—Sp. *Pepino*.—Ger. *Gurke*.

CUCUMBERS are cultivated in all vegetable gardens, and are highly esteemed in warm weather for their cooling and refreshing qualities and for pickling.

Early Russian. This variety we have recently introduced from Europe. It promises to be a valuable acquisition on account of its extreme earliness and prolific character, producing Cucumbers for the table at least ten days earlier than the *Early Cluster*, which it resembles in growth but is much smaller and shorter, being only about three inches long when fit for use. It sets in pairs, and the first blossoms usually produce fruit. Flavor, pleasant and agreeable. It makes the very smallest pickles.

Early Cluster. A short, prickly, seedy variety, bearing in clusters near the root. It is a great bearer, and comes to maturity the earliest in the list, excepting the *Early Russian*.

Early Frame. The standard sort for the table and for pickling; of medium size, straight and handsome. It makes a beautiful pickle that keeps well.

Short Green is very similar, and in many catalogues it is the same as the *Early Frame*.

Early White Spine. The best sort for the table. It is a little larger than the *Early Frame*, grows uniformly straight and smooth; dark green, with white prickles; tender and excellent flavored. The fruit in turning white at maturity retains its fresh appearance much longer than any of the yellow varieties; on this account it is a favorite with Market-men. A good kind for forcing, and a great bearer. *New York Market* is another name for it.

London Long Green. A very excellent variety, about one foot in length, rather pointed at both ends, dark green, firm and crisp. It is a fine kind for the table, and makes a beautiful pickle for those who like them hard and brittle. A good bearer. It was first sent to Mr. Comstock by a London Seedsman, to raise a quantity of the seed for that market.

Extra Long Green Turkey. One of the longest varieties, growing to a foot and a half or more in length; dark green, and very solid, producing but few seeds. A very fine and productive Cucumber. It originated with Mr. Comstock.

Gherkin or West India. A very small, oval-shaped, prickly variety, having more the appearance of a burr than a cucumber. It is quite late, full of seeds, and when pickled, a perfect sponge. The seed are slow to vegetate.

Cucumbers for early use may be planted in the open ground as soon as the weather becomes settled and warm, in hills four feet apart, manured with a shovelful of warm manure or well rotted compost in each hill. Tread the manure and cover it with an inch or two of earth, and scatter eight or ten seeds to a hill; cover half an inch deep with fine earth and spat it down with a hoe. Hoe frequently to keep them growing, and when out of danger from insects, thin the plants to four in a hill. Hog dung and ashes mixed in the hill is the very best manure for Cucumbers, for the principal or late planting. From the middle of June to the first of July is the right time in this latitude to plant for pickling.

To obtain early Cucumbers with the aid of a hot-bed, take block,

of turf six inches square, and place them grass side down, in the bed, early in the spring; plant the seeds on them, and when of suitable size, and the weather mild, they may be removed to the open ground, where they must be protected with a glass, or muslin-covered box, over each hill, whenever the air is cold and raw.

Market Gardeners, who desire to obtain the earliest crop to be had in the open ground, after manuring the hills, mark them across at right-angles and plant each quarter every week, so that if one planting fails, another immediately follows. By this management they are sure to be among the first in market, with the out-door crop.

Cucumber, Melon, and Squash seeds are considered best when two or three years old; they run less to vines and bear earlier and more abundantly.

EGG PLANT.

Fr. *Melongene*.—Sp. *Berenjena*.—Ger. *Tollapfel*.

THE Egg Plant is a very tender vegetable, requiring a hot bed to bring it to perfection in the Northern States. At the South it is sometimes called *Guinea Squash*.

Early Long Purple. The earliest and most productive. Fruit long, and of superior quality.

Large Oval Purple. This variety is more generally cultivated. It grows to large size, oval shape, and dark purple color. There is a prickly, and a smooth stemmed sort. The Prickly grows the largest, and the Smooth Stemmed is the earliest.

Sow in hot-beds very early in the spring, and transplant to two and a half feet apart each way, in very rich, warm ground. Draw earth to the plants as they advance. For the want of a hot-bed the seeds may be sown in window pots early in the spring, or later, on a warm, light bed made in a sheltered part of the garden.

ENDIVE.

Fr. *Chicorée*.—Sp. *Escarola*.—Ger. *Endivie*.

Is a hardy annual, cultivated principally for a winter salad. It is also used in stews and as a garnish for the table. Sow from late in the spring to the middle of summer, in shallow drills fourteen inches apart; thin the plants to one foot in the drills, and when fully grown, tie over the outer leaves of a few plants every week or fortnight, in dry weather, to blanch, which takes from one to three weeks. Draw up a little earth to the base of the plants. Rich, mellow soil, in an open situation, is most suitable.

Green Curled is the hardest variety, with beautifully curled, dark green leaves, very crisp and tender. It is the most cultivated in this country for salads, and is considered a very wholesome vegetable.

White Curled resembles the green, except in color and hardness, it being more tender; not much grown.

Broad-Leaved Batavian. This is the *Scarole* of the French, and is principally used in soups and stews. Leaves, broad, light green, and nearly plain.

INDIAN CORN.

Fr. *Mas.*—Sp. *Mauz.*

THIS excellent vegetable is universally grown in this country for boiling in its green state, and when planted at proper intervals it may be had for the table from early summer until hard frost. Plant in hills three feet apart each way for most kinds, and leave four plants to a hill.

Smith's Early White. This very dwarf variety is the earliest in the list; cob, white; kernels, eight-rowed, and nearly as white as the *Tuscarora*. Plant the hills two feet and a half apart.

Early Red-Cob Sweet. This is an early variety of Sweet Corn, which we have been selecting for a number of years, on account of its earliness. The ears are short, ten or twelve-rowed, and filled to the end of the cob. It is fit for boiling a week or ten days before the large eight-rowed.

Large Sweet. Eight-rowed; cob, white; kernels, very regular and straight in the rows; ears, long and well filled. The best sort for the main crop.

Mammoth Sweet. The largest and latest variety of Sweet Corn. Eight-rowed; cob, red, and a foot or more in length, filled completely over the end. It is very productive in rich ground, and requires a large space. Make the hills three and a half feet apart.

Early Tuscarora. A large variety with large flour-white kernels, a little indented; eight-rowed; cob, red; remains a long time in a boiling state. It requires wide planting and very rich soil.

Early White Flint. Has eight or more rows with medium sized ears. The kernels have a transparent, flinty appearance, and are very hard when dry. A valuable kind for field culture.

LEEK.

Fr. *Poireau*.—Sp. *Puerro*.—Ger. *Lauch*.

THE Leek is a hardy species of Onion, used mostly in soups and stews. Sow early in the spring, in drills fourteen inches apart, and thin to six inches. Hoe earth up to them in the course of cultivation. If it is desired to blanch them very white and tender, transplant when six or eight inches high, into drills four inches deep, and earth up like celery.

Broad Scotch or Flag. A large and strong plant, with broad leaves growing only on two sides, like the Flag. This has the preference here.

Large London. This differs from the other kind in the leaves growing around on all sides of the plant. It has its name from being preferred in the London market; but many English seedsmen sell both kinds out of the same bag.

LETTUCE.

Fr. *Laitue*. Sp. *Lechuga*. Ger. *Gartensalat*.

THE many varieties of Lettuce may be divided into two classes; the head or Cabbage kinds, with round heads and broad spreading leaves; and the Coss Lettuces, with long heads, and upright, oblong leaves.

Early Curled Silesia. A superior early variety, of very strong growth; leaves, large, light yellow, wrinkled. It makes a large loose head of excellent flavor. For forcing, and the first spring sowing, it is highly esteemed; seed, white.

Early White Cabbage. An open spreading Lettuce, grown mostly for an early spring salad; color, light yellow; seed, white.

Large Green Head or Hardy Green, is a hardy dark green; low growing sort, with round leaves, and round hard heads; tender, and excellent; the best of the green Lettuces; seed, black. There is a variety which resembles this in the color and form of the leaf, called *Ice Head*, but improperly so, for it runs up to seed without heading.

Fine Imperial Cabbage or Berlin, is one of the best Lettuces for general use; color, light yellow; seed, black. It heads finely, and answer well for summer growth.

Royal Cabbage. This is the *Blond Summer* of the French; color, light yellow; leaves uniform, nearly all turned into the head, which is well formed, good sized, close, and a little flattened. It stands the heat well; seed, white.

Versailles. Leaves, large, thin, crimped, and very light colored; heads, large and thick, but not very hard. It is prompt to head, but slow to run up; seed, white.

Superb Brown Head. A dark brown curled variety, rather small and late, with close round heads, which cut open finely blanchéd, and very crisp. It remains a long time in head; seed, black, produced very sparingly. Of first-rate excellence.

Large India. This is one of the largest varieties; in general appearance resembling the *Silesia*, but is less curled, and the leaves are whiter, and sometimes edged with pink. It forms very large round heads, which cut white, brittle, and almost transparent. No Lettuce withstands the summer heat better, or is more popular for market; seed, white, produced in small quantity.

Brown Dutch will endure the winter with less protection than most of the other sorts, and is generally sown in autumn. It grows in the Cabbage form but does not make a close head; seed, white. There is a kind with yellow seed, which is preferred by some.

Ice Coss. This is a very brittle Lettuce, with large light green crimped leaves, which have an icy appearance. Heads, oblong, rather loose, and very crisp; seed, white. It is the *Drumhead*, or *Malta* Lettuce of the English catalogues.

Paris Green Coss is one of the best of the Coss varieties. It grows upright, with long, narrow, and dark green leaves. It should be tied up to blanch a week or ten days before cutting; seed, white. It soon runs to seed.

For the first cutting, sow as early in the spring as the ground can be worked, on a sheltered bed, made light and dry; and at intervals throughout the season, for a succession. Thin or transplant to one foot apart for heading. The hardy kinds may be sown in the fall, and protected through the winter by a light covering of straw, or of cedar branches when they can be obtained, which are less liable to smother the plants. The covering should be removed gradually in the spring. The best soil for Lettuce is a very rich sandy loam. It is useless to undertake to grow good heads on poor ground, or thickly together.

MELON.

Fr. *Melon*—Sp. *Melon*.—Ger. *Melone*.

A NATIVE of Asia. The delicious flavor and perfume of this fruit has caused it to be sought after and cultivated in all parts of the world, where the climate will admit of its growth. The varieties are numerous, but the following are most esteemed here.

Green Citron. A handsome, roundish fruit, flattened at the

ends, and roughly netted all over; flesh, thick, green, melting, very sweet, and high flavored.

Pine Apple. A dark green oval Melon, of medium size; rough netted; flesh, thick, firm, juicy, and sweet.

Nutmeg. Is of larger growth, and more globular shaped; flesh, green, and very highly scented.

Skillman's Pine Netted is a small, rough-netted variety, flattened at the ends; flesh, green, very thick, firm, sugary, and of the most delicious flavor. The earliest of the green fleshed Melons.

Large Yellow Canteloup. A good-sized, nearly round fruit, netted, and slightly ribbed; flesh, salmon-colored, thick, and musk flavored; earlier than the green sorts.

Large Musk. This is the largest variety; long oval shape, deeply ribbed; flesh, thick, light salmon-colored, and of peculiar musk flavor; early and productive. This kind is used in its green state for mangoes.

Christiana. A yellow fleshed variety, which originated in Massachusetts. It is ten days earlier than the Nutmeg, but not quite equal to it in flavor, though an excellent sort. Its chief merit is its earliness, which renders it particularly valuable for a northern climate. The seeds of Yellow Melons are generally larger than those of the Green, flatter, and a little crooked.

Plant late in spring, in hills five or six feet apart each way, well manured with old rotten compost; scatter a dozen seeds to a hill, and after they are out of danger from bugs, thin to three or four plants. When they have four or five rough leaves, pinch off the end of the main shoot, which will cause the lateral branches to put forth sooner. It will strengthen the growth of the vines, and the fruit will come earlier to maturity. A light, dry, sandy soil, and dry atmosphere, are most suitable. Melons should not be planted near other varieties, if it is desired to preserve them pure. They have arrived at perfection when the stem will cleave from the fruit. A very rough netted skin is the most sure indication of a high flavored Melon. We have never seen a really good one with a smooth skin.

WATER MELON.

Fr. *Melon d'eau*.—Sp. *Melon de Agua*.

THE Water Melon is held in high estimation in all warm countries, for its refreshing coolness and delicious sweetness. Plant in hills eight feet apart, in a sandy soil, well manured in the hills, as early as can be done with safety from frost, so that the fruit may come to maturity in the warm season, when they are the most agreeable.

Mountain Sprout, or Long Carolina. A large, long striped

variety, with bright scarlet flesh, and drab-colored seeds; one of the very best in every respect.

Spanish. Round, very dark green, with scarlet flesh and black seeds. It is smaller than some of the other sorts, but has a very thin rind, and rich sugary flavor.

Long Island. This is the common variety grown for market, and is either round or long, or both together; flesh, red; seeds, gray. It is earlier than either of the above.

Citron, for Preserving. grows uniformly round and smooth, striped and marbled with light green; flesh, white and solid; seeds, red.

M U S T A R D.

Fr. *Moutarde*.—Sp. *Mostaza*.—Ger. *Senf*.

MUSTARD is a hardy annual, cultivated as a small salad, for greens and for the seed which are extensively employed for medicinal purposes, and for seasoning pickles. The common table mustard is prepared from the flour of the seed. For salad it is sown thickly and used like common Cress. The culture for seed appertains more to the farm than to the garden. Sow early in the spring, in two-foot drills, and thin to six inches. The crop must be gathered before it is fully ripe, in a cloudy day or early in the morning, to prevent the seed from shelling out.

The White is usually preferred for salad. The leaves are light green, mild and tender when young; seed, light yellow.

Black, or Brown, is a larger plant with much darker leaves; seed, brown and more pungent.

N A S T U R T I U M, OR INDIAN CRESS.

Fr. *Capucin*.—Sp. *Nasturcio*.—Ger. *Kapersinerblum*.

AN annual, a native of Peru, cultivated both for use and ornament. Its beautiful orange colored flowers serve as a garnish for dishes, and the young leaves are excellent in salads. The flower buds scarcely formed and the green seed pods preserved in vinegar make a pickle, esteemed by many superior to Capers. Sow early in the spring, in drills one inch deep, the *Tall* variety by the side of a fence, trellis-work or some other support to climb upon; and the *Dwarf* to form borders for the alleys. They will thrive in good ground in almost any situation, but are most productive in a light soil.

OKRA.

Fr. *Gombo*.—Sp. *Quimbombo*.

This is an annual from the West Indies, cultivated for its green seed pods, which are used in soups or stewed and served like Asparagus. It is highly esteemed at the South, where it is considered a very wholesome vegetable. Plant late in the spring, after the ground has become warm, in hills about two and a half feet apart, and thin to three plants in a hill. Hoe often and earth up a little to support the stems. The pods should be gathered while quite young and tender. There are two varieties, the *Long White*, with large white, ribbed pods, and the *Short Green*, with smaller, green, and smooth round pods. Okra is easily preserved for winter use by slicing the pods into narrow rings and drying them upon strings hung up and exposed to the air.

ONION.

Fr. *Oignon*.—Sp. *Cebolla*.—Ger. *Zwiebel*.

THE Onion is one of the most important of the culinary vegetables cultivated in temperate latitudes. It is one of the staple productions of Wethersfield, as every body knows who has heard of this far-famed town, where there are raised every year about one million and a quarter of ropes, or seventy-five thousand bushels, of Onions, the greater portion of which are sold in New York.

The numerous varieties are easily modified under the influence of soil and climate. The following distinct sorts are most esteemed.

Early Red. This very early variety originated in Wethersfield by selecting the earliest for seed for a series of years. It is rather smaller, usually lighter colored, and more flat shaped than the *Large Red*; close grained and heavy. Fit to be gathered the last of July; very productive, and keeps well.

Wethersfield Large Red, is the kind mostly grown at Wethersfield. It grows to large size, deep red, thick, approaching to round shape, fine grained, pleasant flavored, and very productive. It ripens in September, and keeps well.

New Danvers Yellow. This fine variety originated in Danvers, Mass. It is a thick, heavy, straw-colored Onion, mild flavored, and yields most abundantly; ripens early, and keeps equal to the best. It is taking the place of the common yellow wherever it becomes known.

Yellow Dutch. The common yellow variety, rather flat shaped, and excellent flavored. This is the *Strasburgh* of the English Catalogues, and the *Silver Skin* of the Eastern States. Good to keep.

White Portugal. A mild, pleasant Onion, which grows to fair size, and handsome shape, but is very bad to keep, being liable to gather moisture unless spread very thin. It is called *Silver Skin*, in the Middle States, where it requires two seasons to grow to full size. This, and the Yellow, are sown there early in the spring, *very thickly*, in beds or drills, and about the middle of July, or whenever the tops die down; the little bulbs called *Button Onions*, or *sets*, are gathered and kept spread thinly in a dry, airy loft. These little bulbs, the next spring, are set along thinly in shallow fourteen-inch drills, and left to grow without any covering whatever.

The *White sets* are extremely difficult to keep in a body, and often arrive in very bad condition when shipped to a warm climate.

The *Yellow sets* keep much better, and on this account should be chosen for transportation.

Onion seed is sown in Wethersfield from the first of April to the middle of May, the earlier the better, provided the ground is dry enough to work light and fine. After preparing the land by manuring heavily, and harrowing and raking fine, draw drills fourteen inches apart, with a marking rake, and sow at the rate of eight pounds to the acre, if wanted for bunching. For large bushel Onions, six pounds will be sufficient. The sowing is mostly done with machines, which can be graduated to sow any desired quantity to the acre. If convenient, it is better to go over the ground with a light roller, immediately after the sowing. It is customary to weed them three times. At the two first the earth is drawn up a little to the plants, and at the third or last weeding it should be brushed clean away with the fingers, to give them an opportunity to bottom entirely above ground. Onions are an exception to the theory of rotation of crops. They succeed equally well any number of years on the same ground, if kept highly enriched with hog dung, or fine yard manure, spread on every spring and turned in with a light furrow. A top dressing of wood ashes applied after the second weeding is very beneficial to this crop, as will soon be observed by the dark and healthy change of color given to the plants.

The above mode of culture we are confident will produce fair crops of good sized Onions in the Middle States, particularly of the Large Red variety. The Yellow will undoubtedly succeed well also, when the seed is procured from Wethersfield.

To keep Onions in quantity through the winter, deposit them, when perfectly dry, eighteen inches thick, evenly, on a tight floor in an out-building, leaving a space of two feet next the walls of the room on all sides; spread a sheet over them and tuck it close round the edges of the heap; fill the space with fine hay, and tread it hard; then cover the whole two feet thick with the same, and the Onions will keep in perfect order. They should never be disturbed while frozen, but as soon as the frost is completely out in the spring, remove the covering and spread them all over the room, and open the doors and windows to give them air in pleasant weather.

PARSLEY.

Fr. *Persil*.—Sp. *Perejil*.—Ger. *Petersilie*.

A WELL known and agreeable savory herb, used as a garnish and for seasoning. Soak the seed a few hours in warm water, and sow very early in the spring, in one-foot drills. Parsley seed is slow to germinate, particularly if sown late in the season, when it often fails entirely in dry weather. To have it green through the winter, remove some plants and set them in a light cellar.

Plain Parsley. This is the hardiest and strongest growing variety. Leaves, dark green, plain, longer than the curled, and better flavored for seasoning. A covering of straw or evergreen boughs, will ordinarily protect it through the winter.

Curled, or Double, is more dwarf, and tender; leaves, yellowish green, and very beautifully crimped and curled. It is used principally as a garnish for the table.

PARSNIP.

Fr. *Panais*.—Sp. *Chirivia*.—Ger. *Pastinake*.

THIS is a hardy biennial, common in most gardens, where it should be accommodated with the deepest and richest soil. Sow early in the spring, in fifteen-inch drills, and thin to eight inches apart. There are several varieties. We cultivate but one, to which we have given the name of

Long Smooth. We have been ten years selecting the roots, from which we cut only the principal umbel, for stock seed, in order to improve this fine variety, which we consider the very best in cultivation. Roots very long, white, smooth, free from side roots, tender, sugary, and most excellent flavored. The tops are small and tinged with red at the crown, which rises from the centre, surrounded by a slight depression. It keeps through the winter perfectly well, where grown, without any protection. It originated from the *Hollow Crown*.

PEAS.

Fr. *Pois*.—Sp. *Guisantes*.—Ger. *Erbse*.

THE Pea is a hardy annual, in the highest estimation in all countries, as one of the most agreeable culinary vegetables, in its green state, and there is often much emulation among Seed growers to obtain the very earliest variety, and among amateur gardeners, to present, at their own table, the first dish of the season. The varieties are very numerous, though many of the names are

synonymous. The following, comprising the best assortment, when sown at proper intervals, will give a succession throughout the season.

Early Prince Albert. About two feet high, pods and peas small, good flavored, but not very productive. The earliest in the list.

Extra Early May. This is a very early variety, growing about two and a half feet high. Pods rather broad, but well filled with good sized peas, moderately productive, ripening nearly all at once.

Early Warwick. A very superior early pea, about a week later than the Extra Early. About three feet high; pods and peas medium size, of excellent quality, and a good bearer. A standard sort.

Early Washington. This is often confounded with the Early Warwick; we do not know the difference.

Early Frame, or June, is a very celebrated Pea, about a week later than the Early Warwick, and grows to the same height. Pods, medium size, round, mostly containing five or six Peas; hardy, very prolific, and of excellent quality.

Early Double Blossom. The kind we have under this name is about as early as the Early Warwick, and of the same height. Pods, long, and well-filled. A good bearer, and very excellent family Pea.

Early Charlton. About three to four feet high, and of strong growth. Pods, large, broad, and rather flattened, mostly containing six or seven peas; hardy, prolific, and about a week later than the Early Frame.

Bishop's Dwarf. A very prolific, and remarkably dwarf variety, growing only about one foot high. Pods, short and broad, mostly containing four or five peas; seed, yellow; about one week later than the Early Frame. It continues longer in bearing than most others. Plant early, in drills two feet apart, and lay them over by hilling up higher one side in the course of cultivation.

Dwarf Blue Imperial. Grows about two and a half feet high, and very strong. Pods, large, long, pointed, rather flat, containing eight or nine peas. Seed, large, blue, and a little flattened. A good bearer, and one of the best varieties for summer, but require to be planted early, or they will be apt to mildew.

Flack's Dwarf Victory. This new variety resembles the Blue Imperial; pods and peas larger; height, three feet; seed, large, light-blue, and a little shrivelled. It is a very fine Pea.

Dwarf Blue Prussian. About three feet high, and strong growth. Pods, long, and rather round, containing eight Peas; seed, blue, and a little oblong. One of the greatest bearers, and an excellent summer Pea.

Large White Marrowfat. Is an American variety, cultivated more extensively for the summer crop than all the others. About five feet high, and strong growth. Pods, large, round, rough,

light-colored, and well filled; seed, large, round, and yellow or white, according to the soil in which they are grown. This is so well known, that it is needless to speak of its good qualities. It is undoubtedly the best for summer use, and one of the greatest bearers in the garden or field. The same pea is sold under the name of *Dwarf Marrowfat*. An excellent sub-variety, about a week earlier, has obtained, around Albany, the name of *Missouri Marrowfat*.

Matchless Marrowfat. This is a very strong-growing Pea, rising six feet high, very productive, and of most excellent quality, but late. Pods, large, long, and full; seed, very large, a little shrivelled; yellow and yellowish-green, mixed.

Dwarf Sugar. About three feet high, and of very strong growth. Pods, long, and slightly curved, containing mostly seven Peas, which show in relief along the pods. They are usually cooked in the pods like Snap Beans. Of excellent quality, but rather late, and only a moderate bearer.

There are a great many fancy varieties, which are of delicious flavor, but generally moderate bearers, and very high-priced. Every year some new Peas come out in the catalogues of the English Seedsmen, with high-sounding names, which are quoted at enormous prices. Occasionally a really valuable acquisition is added to the list, but in general they are unworthy the attention of the common cultivator, whose object is to obtain a certain crop. Some of the latest are the following: *Shilling's Grotto*, *Early Blue Surprise*, *Early Danecroft*, *British Queen*, *Mammoth Marrow*, *Burbidge's Eclipse*, *Carter's Victoria*, *King of the Marrows*, *Early Champion of England*. The last is said to be really extra fine, and a prodigious bearer. It was brought out at the price of \$2 a quart. When we have proved any of them to be worthy of general cultivation, we shall offer them in our Price Catalogue.

The planting for the early crop should be made in the spring, as soon as the ground can be worked, in a warm, dry situation, and covered about three inches. At the South, where they will endure the winter, the planting for the first crop is made in October and November. The ground should have been manured the year previous, or the Peas will be apt to grow too much to straw. Use thoroughly decomposed manure, if any, immediately before planting. The height to which all Peas grow, depends, in a great measure, upon the richness of the soil, and the wetness of the season. In a rich soil, and wet season, they will sometimes outstrip all expectation, and the seedsman is likely to be faulted for selling spurious seed. They are usually planted in double rows, from three to four feet apart, and those requiring it bushed when about six inches high. The large and later sorts do better at a greater distance apart, leaving a broad space for planting low-growing vegetables between the rows. They should be kept clean, and earthed up twice in their growth. We have tried a new mode of growing the common Early and Marrowfat Peas, which succeeds

very well in small gardens, and which is practiced to some extent for marketing: scatter about a dozen Peas in every hill, with early planted Potatoes, of the Mercer, or some other small-topped variety, hoe them in the hill along with the Potatoes; they will grow up and fall together between the rows, and produce a very fair crop. So soon as the Peas are gathered, the straw must be pulled up and removed. The Potatoes are not much affected, and a supply of peas is obtained with very little trouble.

PEPPER.

Fr. *Piment*.—Sp. *Pimiento*.—Ger. *Pfeffer*.

THE Pepper is a tender annual, employed as a hot, pungent seasoning, and for pickling, and is universally esteemed as a very wholesome vegetable. Sow early, in a hot-bed, or in the open ground, in a seed-bed, about the middle of spring, in light, warm ground. Transplant when three inches high, one foot apart, in eighteen-inch drills, and earth up a little at one or two hoeings. Guano, hen-dung, or any other bird-manure, applied upon the surface, and hoed in, when the plants are about six inches high, will be found to increase the product wonderfully.

Long Cayenne. This is a long, red, tapering variety, of dwarf growth, very hot and pungent; used for pepper-sauce, and for seasoning.

Cherry. A small, smooth, round, red variety, of uniform shape, very hot; a great bearer.

Large Squash. Large and thick; flat, tomato-shaped; rather mild, and the very best for pickling alone; very productive.

Large Bell, or Bull-nose. A very large sort, of a more square form, mild, thick, and hard; suitable for filling with Cabbage, &c., for a stuffed pickle.

Sweet Mountain, or Mammoth. A new variety, of nearly the same form, but much larger than the last described. It is used mostly for pickling.

Sweet Spanish. There are two sorts, one large and long, and the other of a more square shape, neither of which have the least pungent flavor; used for a salad, and for pickling; very late, and rather difficult to keep when pickled.

PUMPKIN.

Fr. *Potiron*.—Sp. *Calabaza amarilla*.—Ger. *Kürbis*.

THE Pumpkin more properly belongs to the farm than to the garden. Plant about middle of spring, in manured hills, eight feet apart, and leave but two or three plants in a hill. It is customary

among New England farmers to stick two seeds in every fourth hill in every fourth row in their corn-fields. The *Connecticut Field* is a large, soft-rined variety, excellent for pies, and for feeding stock. The *Cheese Pumpkin* is flat-shaped, and salmon-colored. It resembles more the Winter Squashes, and ought to be classed with them.

RADISH.

Fr. *Radis et Rave*.—Sp. *Rabano*.—Ger. *Rettig*.

AN annual, originally from China, very generally grown in all gardens. It is cultivated principally for the root, which should always be eaten before it becomes tough and pithy. The young seed leaves are sometimes used as a small salad, and the green seed-pods as a pickle.

For the first crop, sow as early in the spring as the ground can be worked, and every two weeks throughout the season, for a succession. A warm, sandy loam, made rich and light by some good strong manure, will be the most likely to afford them brittle, and free from worms. Sow in twelve-inch drills, and thin to two or three inches apart.

It should be borne in mind that Radishes must have plenty of room, and be grown quick, or they will invariably be tough and wormy. In the heat of summer, they ought to be watered very freely.

Early Short-top Long Scarlet. This is the standard sort grown in private gardens, and for market; when true and pure, it has a bright scarlet root, and very small top. In suitable soil it grows quick, half out of ground, and very brittle.

Long Salmon. Longer and lighter colored than the above, with a larger top; a few days later.

Demi-Long Rose. A very early and handsome variety, from France, nearly allied to the Scarlet Turnip; of a lively rose color, and oblong shape, top very small; of very good quality, but rather apt to grow hollow. It is extensively grown by the market gardeners at Paris. It is also in great repute in New Orleans.

Scarlet Turnip. A small, round, red, turnip-shaped Radish, with a small top, and of very quick growth; mild and crisp when young but soon gets pithy.

White Turnip. Like the Scarlet in shape, but in color pure white. It is later, and will bear the heat longer without becoming spongy.

Yellow Turnip. This is an oblong, turnip-shaped, and russet-colored sort, growing to large size, with pretty large top. It is the very best to stand the heat and drought of summer.

Black Fall or Spanish. An oblong, black Radish, of very large size, and firm texture, with dark green leaves. It is sown rather

earlier than the Fall Turnips, and must be stored in sand in the cellar for winter use. It will keep good till spring.

Rose-Colored China Winter. Recently introduced from China. Its form is rather conical and very smooth; of a lively rose color; flesh, firm, like the Black Radish, but more pungent. Cultivation the same as for that variety.

R A P E.

Fr. *Colza*.—Sp. *Nabo Silvestre*.

A VERY hardy vegetable, mostly grown in farm cultivation for the sake of its oily seeds. It is sometimes sown in gardens for greens, under the name of *Collards*.

R H U B A R B.

Fr. *Rhubarbe*.—Sp. *Ruibarbo*.—Ger. *Rubarber*.

A HARDY perennial from Asia, cultivated in gardens for the leaf stalks, which are used for pies and tarts. Within a few years, the cultivation of this very grateful and wholesome vegetable has been extensively increased, so that immense quantities are now annually sold in all the large Markets. No private garden should be without a bed of it. New varieties of enormous size have been produced by the emulation of gardeners, and are held at high prices, as they can only be propagated from the root. The seed cannot be relied upon for the reproduction of the same variety. Sow early in the spring in a seed bed. In the Fall, transplant to three feet asunder each way, in hills enriched with half a bushel of well rotted manure. The stalks should not be plucked till the third year, and the plant never allowed to exhaust itself by running to seed.

Early Tobolsk. This highly esteemed variety is the earliest of all. It is small compared with the large sorts, but inferior to none of them in excellence of flavor; color, rosy red. In use from early spring to fall.

Myatt's Victoria. A very large, red, rich flavored variety, in high estimation. It grows quite as large as the Giant, and is much earlier. Plant out this and the next, five feet apart.

Giant. This is a very large and late green sort, with round stalks of great length and thickness. In use all summer.

SPINACH.

Fr. *Epinard*.—Sp. *Espinaca*.—Ger. *Spinat*.

SPINACH is a very hardy annual, with thick, succulent leaves, cultivated to considerable extent for Greens. For the early spring crop, sow about the middle of autumn, thinly, in fourteen-inch drills; and at the approach of winter, cover with a light layer of straw or cedar branches. For the succeeding spring and summer crop, sow as early in the spring as the ground can be put in good condition. To grow Spinach in perfection, the ground must be made very rich with strong manure.

Round-leaved Savoy. Has smooth seed, and round or blunt, thick, fleshy leaves, a little crimped; generally preferred for spring sowing. There is also a round seeded variety, with longer, arrow-shaped leaves, which is by some considered the best.

Prickly or Fall. This is the hardiest variety; prickly seeded; with triangular, oblong, or arrow-shaped leaves. It is mostly employed for the fall sowing.

Flanders has very large, dark green leaves, and smooth seed. It is the handsomest and most productive of all the varieties.

SALSIFY.

Fr. *Salsifis*.—Sp. *Ostra ù Ostion vegetal*.

THE Salsify is a hardy biennial, with a grassy top, and a long, white, tapering root, nearly resembling a small Parsnip. It closely assimilates to the taste and flavor of the Oyster, when properly cooked; and by many persons is esteemed as a very delicious vegetable. The roots may be taken up late in the fall, and preserved in moist sand, or allowed to stand out all the winter. In the spring, the young tops are sometimes used for Greens. It is known also by the name of *Vegetable Oyster*.

Sow in the spring in fourteen-inch drills, and thin to six inches. Cultivation the same as for Carrots and Parsnips.

SEA KALE.

Fr. *Chou Marin*.—Sp. *Breton de Mar*.—Ger. *Meerkohl*.

THIS hardy perennial is found growing on the sea coasts of Great Britain. It is cultivated for its blanched shoots, which are cooked like Asparagus, and is esteemed as a delicate and wholesome vegetable, as yet but little known in the United States.

Sow the seeds early in the spring, an inch deep in fourteen-inch drills. When the plants are one year old, transplant them eighteen inches apart, in straight rows five feet apart. The ground must have been thoroughly trenched and manured. Late in the fall, when the leaves have separated themselves from the crown, heap over each plant a shovelful of clean sand or ashes, and earth up a ridge a foot and a half high over the rows, from a trench dug along the space between them, and beat it smooth with the back of the spade. In the spring, after the cutting is over, the earth should be leveled into the trenches, so as to expose the crowns of the plants, and a good coat of strong manure dug in around them. It is adapted to the coldest climates, and deserves to be more extensively cultivated.

SQUASH.

Fr. *Courge*.—Sp. *Calabaza*.

THE Squash is a native of warm latitudes, and may be divided into Summer and Winter, Bush and Running varieties. Being all very tender and sensitive of cold, they cannot with safety be planted in the open ground before the middle of spring. The hills should be manured and prepared the same as for Cucumbers, and all sorts thinned to two or three plants in a hill.

Early Yellow Bush Scollop. An early, flat, scollop-shaped variety, of a deep orange yellow, and smooth skin; used when young and tender for boiling, and at maturity for making pies.

Early White Bush Scollop. Similar in shape to the Yellow, light cream-colored. It grows to larger size, of a coarser quality, and is a little later; more grown at the South than any of the others. Both varieties are called *Patty-pan* in the Middle States, where all the summer sorts have the local name of *Cymplings*.

Early Bush Summer Crookneck. The richest and best sort for summer; very early and productive. It is small, crooked necked; covered with warty excrescences, (the more warty the better;) color, bright yellow; shell, very hard when ripe. It is used only when young and tender, which may be known by the pressure of the thumb nail through the skin. These three sorts should be planted three feet apart. There are Yellow, White, and Green running varieties of nearly the same shape, but they take up too much room to be allowed a place in a common garden.

Green Striped Bergen. This is cultivated to considerable extent for the New York market. It is small, bell-shaped, and striped with dark green and white; a bush variety of strong growth, requiring to be planted four feet apart. Used both green and ripe. It does not produce great crops, but is quite sure to ripen in the coldest seasons.

Vegetable Marrow. This is intermediate, between the Pumpkin and the Squash, used mostly when young and tender, like the summer Squashes, but is inferior to any of them. Fruit long oval, very fleshy and succulent; color, light yellow. There are different colored varieties. Plant six feet apart, on account of its running habit. The English make great use of it.

Fall, or Winter Crookneck. The kind most generally cultivated in New England, for fall and winter; necks, long and solid; color, pale yellow, the deeper the color the better. There is a striped variety of the same shape and quality, with which this is usually mixed. It yields well, and is excellent for pies; valuable also as a farm crop for feeding hogs and cattle.

Canada Crookneck is a small, early variety of the above, that bears well, and is by many esteemed preferable. From their running habit, these two last require to be planted six feet apart.

Autumnal Marrow. This is the most popular kind in the Boston market. Form, ovate, pointed; skin, extremely thin, bright orange or salmon-colored; flesh, deep orange, finely grained, and excellent flavored; seeds, large, white. Average weight, six or eight pounds. It keeps well in winter, and will boil as dry as a potatoe. Plant eight feet apart. The very best.

Lima Cocanut. A large, long, blue Squash, very fine grained, and sweet; seeds, white; very late, but if well ripened will keep till spring; esteemed for boiling dry. Plant eight feet apart, and leave but two plants in a hill.

The varieties of the Squash are so numerous, and they intermix so easily, that it is very difficult to preserve each pure. The rage for Mammoth Squashes we hope has gone by; they are always coarse grained and watery, only fit for stock feeding. Small, and medium sized Squashes are uniformly finer grained and richer flavored.

TOMATO.

Fr. *Tomate*.—Sp. *Tomato*.—Ger. *Liebes Apfel*.

THE Tomato, until within a few years, was almost wholly unknown in this country as an esculent vegetable, and only to be found in borders and flower gardens, for ornament or curiosity, under the name of *Love Apple*. Since its introduction to the uses of the table, and the discovery of its exceedingly wholesome properties, it has been rapidly gaining favor, and is now one of the most common of all culinary vegetables. It is extensively grown near the large markets, where its high price early in the season is a great inducement to gardeners to undertake to produce an early crop.

Sow very early in the spring, in window pots, for the want of a

hot bed, and in the open ground as soon as it can be worked, in a warm border on the south side of a tight fence, and thin the plants to three or four inches, to keep them low and stocky. When severe frosts are no longer to be feared, transplant to two by three feet apart. Hoe often, and earth up a little till the plants are a foot high; they may then be supplied with supports, or allowed to spread upon the ground.

To hasten the maturity of the first fruit which sets, pinch off the extremities of the tops and all the secondary shoots which afterwards appear above the flowers. When the desired number are about half grown, commence stripping off the leaves and cutting off the new shoots, so that at length the plants are completely bared of leaves, and the fruit is left fully exposed to the sun.

The following is a new French mode of preserving Tomatoes for several months: "It consists in gathering at a late period the fruit which has reached its full size, but which is yet green. Leave eight or ten inches of the stalk, and tie them in bunches of six or eight, taking away most of the leaves. These bunches are afterwards hung in an airy and dark place, where they will keep all winter. When it is required to use them, take the necessary number of bunches, and place them near the windows of a living room. The fruit reddens and ripens in a few days."

Large Red. The earliest that grows to large size; color, bright red; shape, uneven and deeply furrowed. A great bearer.

Large Smooth, or Round Red. A little later than the above, smooth and fair, nearly round or flattened; color, bright red. It is preferable only for its beauty and cooking facility.

Pear-shaped, is preferred for pickling, being more fleshy and firm; color, reddish pink.

Large Yellow. About the size and shape, but a little more flat than the Smooth Red; color, bright yellow; flesh, firm; fit only for preserving.

Small Yellow. Shape, uniformly oval and perfectly smooth color, lemon yellow; used only for preserves.

Cherry. A small round red Tomato, of the shape and size of cherries; cultivated mostly for pickling. We derived our stock from a plant we found growing wild in the Island of Cuba. It is the earliest of all.

T U R N I P .

Fr. *Navet*.—Sp. *Nabo*.—Ger. *Rube*.

THIS wholesome and agreeable esculent has been cultivated from time immemorial, as a field crop, and in England, at the present day, it is one of the staple productions of the farm. It is most easily affected in its form and flavor by soil, climate and mode of

culture. There are a great number of varieties, but the following are the best for the garden or the farm.

Early Flat Dutch or Spring. A medium sized white flat turnip of quick growth, juicy, and of excellent quality when young; sown in spring or fall. It is spongy, and inferior when overgrown.

Strap-leaved White-Top, is a very early sort, which is taking the place of the old Early Dutch; form, round, flat, medium size; very small tops, with but few leaves, entire, upright growth, more resembling Horse-radish leaves in shape; tap-root, very small. It is also one of the very best for fall sowing, and for market.

Strap-leaved Red-Top, has the form and character of the White-Top, excepting color, which is red or purple above ground. These two kinds are the best for spring sowing, and for all garden culture, where they may be grown fair and free from worms, if not sown too early in the fall. They have been introduced but a few years, and are rapidly taking the place of all other Flat Turnips for table use. Flesh, fine-grained and exceedingly rich, buttery-flavored.

Early Garden Stone. This is an English garden variety, of a round shape, firm texture, with larger leaves than the Early Dutch, but not so well adapted for spring sowing. It is of quick growth when sown in the fall.

Early Red-Top Flat. A handsome flat-shaped root, purple above ground, with small top and tap-root. An excellent variety, differing but little in shape from the Strap-leaved, except in the form of the leaf, though not of so fine quality.

Large English Norfolk. This is a large variety of the Flat Turnip, rather irregular in shape, with large tops; color, white. It is grown principally for stock feeding, and requires to be sown earlier than the table sorts. It is allowed to stand out during the winter at the South and West, where the tops are used for greens.

White Globe, is of the most perfect globe-shape; skin, white and smooth; leaves, dark-green. A strong and uniform grower, larger than the Norfolk, and suitable only for field culture.

Long White, or Cow-horn. This excellent variety has never become extensively known. It grows very quickly to good size, nearly carrot-shaped, and stands half out of ground; flesh, white, fine-grained and sweet; tops, small and spreading. It keeps well, and is esteemed by some the very best of all for culinary purposes: but they should be gathered before very severe frosts, or they will be injured for keeping.

Long Tankard. An English variety; thick, long, white, growing one third or more its length out of ground. There are Green and Red Topped Tankard Turnips of the same shape. They are of softer texture than the Flat varieties, and more exposed to injury by frost.

Early Yellow Dutch. A very handsome variety, of a smooth round form, and small top; flesh, yellow, firm, sweet, and excel-

lent flavored. It keeps well, and is altogether the best yellow Turnip for the garden.

Yellow Stone, is a very hard, round, yellow Turnip, green above ground; top, small; excellent to keep.

Yellow Aberdeen, or Bullock. Roots, medium size, round form, with comparatively short, spreading, dark green leaves. It is an old and esteemed variety, considered as approaching very nearly to the Ruta Baga in hardness and firmness of texture.

Long Yellow. Long, carrot-shaped, deep yellow, growing entirely in the ground; flesh, close grained and hard; best kept till spring.

Dale's Hybrid. This variety was obtained by intermixture with the Swedish Turnip. Roots, large and rather oblong; irregular shape, of a lightish yellow color, and firm texture; tops, large and luxuriant. It originated in Scotland.

For the spring crop, sow the Early White Dutch or the *Strap-leaved* sorts, as early as the seed can be got into the ground in fourteen-inch drills, and thin to five or six inches. Keep them perfectly clear from weeds, and when the bottoms begin to enlarge, brush away the earth from about the roots to the depth of half an inch or more, and give them a light dressing of wood ashes. This is the surest mode of obtaining fair and smooth spring Turnips in old gardens, where they are almost certain to grow wormy if the earth is allowed to remain in contact with the roots. It is important to get them started very early, so that they may have time to grow to sufficient size before very hot weather, when they will soon become tough and strong. They may be sown in a seed bed or on a warm border, and transplanted in a wet time to the drills, when they have made five or six leaves; taking care to shade and thoroughly water the plants. We have grown the *Strap-leaved* variety in the spring, in this way, as tender and sweet as fall Turnips. On fresh new land, a fine spring crop may occasionally be obtained by the ordinary mode of culture.

For the fall and main crop, sow, in New England, from the last of July to the first of August, in drills, as directed for the spring sowing. In the field, Turnips are more generally sown broadcast, though much the largest crops are obtained by drill culture.

Land newly cleared and burnt over, and old pasture ground, ploughed two or three times during the summer, and well manured and ashed at the time of sowing, will produce the clearest and sweetest Turnips. The sowing should always be done just before a rain, if possible, for the escape from the fly, and the success of the crop, in great measure depends upon quick germination, and a rapid and free growth at first. They will be safe from the fly after putting out the rough leaf. A light sandy, or gravelly loam, freshly manured, is the most suitable.

To preserve Turnips in good order for winter, store them in barrels placed alongside the wall of a cool cellar, and cover them with sand or turf to keep them fresh.

The tops afford excellent spring greens, in a mild climate, where the roots can stand out with safety through the winter.

The Ruta Baga, Yellow Swedish, or Russia, known to many people by the name of *French Turnip*, and in New York market by the name of *Southold Turnip*; forms a distinct class, which, perhaps, more properly belongs to the Cabbage tribe. They are close grained, very hard, and will endure a considerable degree of cold without injury. They keep well, stored in a cellar, without any trouble, but are not in perfection for the table till towards spring. Extensively grown for a farm crop. Sow here 20th of June to the 1st of July, in two-foot drills, and thin to ten inches apart. It is necessary that the ground should be dry, and made very rich.

Purple-Top. This is the variety mostly grown; shape, oblong; dull reddish color above ground, and yellowish underneath. It is harder than any of the common Turnips, and will keep solid till spring. The *Green Top* is like it, excepting color.

Skirring's Liverpool, is an improved purple-top variety, of very strong growth and large size. By its quick vegetation it generally escapes the ravages of the fly; best suited to field culture and cattle feeding.

SWEET AND POT HERBS.

Sage.
Summer Savory.
Sweet Marjoram.
Sweet Basil.
Thyme.
Lavender.

Caraway.
Lemon Balm.
Fennel.
Pot Marigold.
Roquette.
Rosemary.

These are warm, aromatic, and spicy herbs, used principally for seasonings in culinary operations. The most savory, agreeably flavored, and commonly cultivated, comprise the first column. No private garden should be without a small bed of them. Excepting Sage, which is perfectly hardy, and should be sown early, sow late in the spring, in shallow drills one foot apart, and thin to suitable distances, which can be determined as the plants increase in growth.

To preserve the herbs dry, cut them in a sunny day, when fully grown, and spread them thinly in the shade.

ROOTS.

Asparagus Roots. These are usually sold at two years old; but one year old roots are preferable, if well grown. They may

be transplanted either in the fall or spring, with perfect safety. For the Southern States they should be ordered in the fall. Care must be taken to keep them always covered; if they are exposed to the air, they soon dry up and become worthless.

Onion Sets. The Onion sets obtained in Wethersfield are the little Onions, called Rareripes, selected from the main crop, and are usually about the size of large walnuts. They should be set out in fourteen-inch drills, as early in the spring as possible. In October and November at the South. When the seed stalks have risen about eighteen or twenty inches high, they must be broken off separately with the hand. If this important operation is neglected, they will run up to seed without bottoming. They attain full size about the middle to the last of July; but may be eaten with the tops as soon as the bottoms begin to enlarge.

Shallots. These grow in clusters, and are readily increased by offsets. Plant them out in the fall or spring, as directed for Onion sets.

Garlic is propagated by separating the divisions of its bulbous roots, called cloves, which are set out in the spring like Onion sets. It has no seed stalks.

Egyptian or Top Onions. These produce sets on the top of the stalk. They are propagated the same as other Onion sets. The large Onions produce the sets, and the sets the large Onions; color, reddish yellow; flavor, mild and pleasant.

Potatoe Onions are increased by offsets. Plant out the small Onions in the fall or spring, like other sets, to obtain large Onions. The large Onions set one foot apart in fourteen-inch drills, in the spring, and covered slightly, will produce from six to ten in a clump, partly under ground; color, reddish salmon.

FLOWERS.

"They are made solely to gladden the heart of man, for a light to his eyes, for a living inspiration of grace to his spirit, for a perpetual admiration.—HOWITT.

FLOWER-SEEDS are sown in drills, and in small circular patches, on the borders of alleys, and in beds of various forms, to suit the taste of the cultivator; and from a quarter to half an inch in depth, according to their size. The soil should be spaded, leveled, and raked fine, and after the sowing lightly covered, and beat gently with the back of a spade. Seeds of tender flowers, natives of a warm climate, will not come up well, if sown too early in the spring. When sown at the proper season, the ground ought to be watered, and the patches covered with a inverted flower-pot, or otherwise shaded, if it should be very dry. The after culture consists in thinning, stirring the earth, staking, training, and occasionally watering at evening, in dry weather. A constant succession of flowers may be obtained throughout the season, by sowing from April to the middle of June.

A SELECT LIST OF THE MOST BEAUTIFUL AND EASILY CULTIVATED FLOWERS.

ASTERS.—All the varieties are beautiful annuals, forming one of the most brilliant ornaments of the flower garden. The German Asters are the handsomest; height, two feet. Sow in May, in light, rich soil.

AFRICAN HIBISCUS.—A tall annual. The petals are light yellow, with a rich, brown centre, and the stamens of a brilliant color. Sow in May or June.

AMERICAN CENTAUREA.—A handsome border annual, with large, pinkish, thistle-like flowers. It should be sown early, in rich soil. Two feet high.

BEE LARKSPUR.—A tall growing perennial, with long spikes of light blue flowers. The petals are folded up in the centre of the flower, so as to resemble a bee. Sow in April or May.

CRIMSON COCKSCOMB.—A much admired annual, which requires a rich soil, and good cultivation, to produce large and handsome flowers. The dwarf variety is the finest. Sow in May or June.

LANDYUFT.—A very showy annual, of dwarf growth, producing purple or white blossoms, in great profusion. Sow from April to July, for a succession of flowers. One foot high.

CATCHFLY.—A pretty, showy annual, with tufts of white, or light red flowers. Sow in April or May. One foot high.

CARNATION PINK.—Sow in May, in very rich soil, and keep the plants well cultivated. Early in August, transplant to one foot apart, and protect during winter with a light covering of litter.

CHINA PINK.—A hardy annual, of extraordinary beauty, with a great variety of colors; single and double. It may be preserved in a dry soil for two or three years. Sow in April or May. One foot high.

DOUBLE BALSAM.—A superb annual, with mixed colors, spotted and striped, and very double. Sow in May or June, and transplant to one foot apart, in rich soil. One to two feet high.

ELEGANT CLARKIA.—A pretty annual, with rose-colored flowers, a long time in blossom. Sow in April or May.

DOUBLE HOLLYHOCK.—A splendid tall biennial, with beautiful, large, double flowers, mixed colors, varying from dark purple, crimson, and yellow, to white. Sow in April or May.

DOUBLE POPPY.—An annual, producing a variety of flowers, some beautifully fringed. Sow early, and where they are to remain, as they will not bear transplanting.

EVENING PRIMROSE.—A tall growing annual, of the easiest culture, which opens its flowers only when the sun is overcast. Sow in April or May.

FLOS ADONIS.—A dwarf growing annual, with dark crimson flowers. Sow in April or May, in common garden soil.

GOLDEN ETERNAL FLOWER.—A beautiful annual, with deep yellow flowers, which retain their color, and form after they are gathered. There are white and purple varieties. Sow in April and May.

GOLDEN COREOPSIS.—A hardy annual, producing a profusion of brilliant yellow and purple flowers; very pretty. Sow in April or May. Two feet high.

HEART'S-EASE, OR PANSY.—A very beautiful plant, which lives over the winter, and produces a great variety of velvet-like flowers. Sow in April and in July.

LOVE LIES BLEEDING.—An annual, growing three feet high, with long, drooping spikes of crimson flowers. Sow any time in spring.

FRENCH MARIGOLD.—A much admired annual, with very showy, yellow and purple, spotted and striped flowers. Sow in May or June.

MARVEL OF PERU.—A handsome annual, growing about two feet high, producing various colored flowers, spotted and striped. Sow in May, in rich soil.

MORNING GLORY.—A splendid annual runner, with flowers of various colors, which requires to be trained around stakes or trellis-work. Sow in April or May.

PETUNIAS.—Beautiful trailing annuals, of easy cultivation, producing a great profusion of flowers of different colors. Plants may be potted in the fall, to blossom during winter. Sow in May.

SUMMER APPLES.

Early Harvest. [Syn. Yellow Harvest, Prince's Harvest, Early French Reinette, July Pippin.] Size medium, roundish, usually more or less oblate, smooth; bright straw color, when ripe; stalk rather short and slender; calyx moderately sunk; flesh nearly white, flavor rather acid, fine. Ripens at wheat harvest, and for three weeks afterwards. Shoots erect, slightly diverging, straight, often forked. Very productive. Needs rich cultivation to be fine. Good throughout the northern states.

Bough. [Syn. Large Yellow Bough, Sweet Bough, Early Sweet Bough.] Large, roundish, remotely conical-ovate, sometimes distinctly conical; pale greenish yellow, stalk one-half to an inch long, basin narrow, deep; flesh white, very tender, with an excellent sweet flavor. Ripens from the middle to the end of summer. A moderate and regular bearer. Shoots yellowish, somewhat irregular, ascending; tree round-headed; leaves obtusely crenate.

Early Strawberry. [Syn. American Red Juneating, of Manning.] Rather small, roundish, varying to round-ovate, and sometimes quite conical; surface indistinctly and finely striped with bright and deep red, tinging faintly the flesh; stalk tender, three-quarters to an inch and a half long; basin small and narrow; flesh white, tender, sub-acid, rather brisk, pleasant, not very rich. Ripens one to three weeks later than Yellow Harvest. Growth, very erect; leaves erect, finely crenate.—Productive, Good in all localities.

Summer Queen. Rather large, roundish-conical, somewhat ribbed; striped with bright red on rich yellow ground; stalk an inch and a half long; cavity small, acute; basin small, furrowed; flesh yellowish, rather acid, spicy, very rich. Fine for cooking. Late summer. Good on warm, sandy soils, poor on cold clay. Shoots light colored, leaves finely crenate.

Summer Rambour. [Syn. Rambour d'Ete, Rambour Franc.] Medium or large oblate, pale greenish yellow, slightly streaked with red; stalk short; calyx large, deep set; slightly sub-acid, good. Middle to late summer. Good bearer. Dry, if over-ripe. Of French origin.

The above description from Thomas' fruit book, seems to an-

swer precisely to the apple we are cultivating as the *Hocking*. We suppose it to be the same. But be it so or not, the *Hocking* is among the very best of summer apples.

Early Red. A fruit much cultivated in the east part of Indiana. A profuse bearer and the tree very hardy. The quality of the fruit second rate; but its certainty of bearing renders it desirable.

Barnhill's Summer. This is another Indiana fruit, which has some good points to recommend it, although the quality is only second or third rate.

Early Joe. Size medium or rather small; oblate, sometimes obscurely approaching conical; smooth and regular; color, with numerous short, broken, red strips on yellow ground, a nearly uniform deep red to the sun, with conspicuous white specks; stem three-quarters of an inch long, rather thick; cavity shallow, acute; basin small, even; flesh fine grained, very tender, slightly crisp, juicy, sub-acid, spicy, excellent. Ripens the last two weeks of summer. Shoots dark, growth slow. A profuse bearer. Origin, East Bloomfield, N. Y.

Blush June. A beautiful red fruit, of sprightly acid flavor, ripening in July. A good bearer, and every way a desirable Summer fruit. Of southern origin.

Sweet June. A fruit of southern origin, ripening at the same time with the Sweet Bough, which it resembles. The Sweet Bough does not maintain its eastern reputation, when grown upon the rich prairies of the west, and the Sweet June seems to be a good substitute, as the latter bears abundantly and the tree is well adapted to the prairie soil.

Trenton Early. A good August fruit of which we find no mention in fruit books. It bears well in this country.

Kirtland Early. A fruit brought from Kirtland, Ohio, without a name. As it has proved a first rate bearer with us, we have taken it into the nursery. It ripens about the 20th of July, is about medium size. Yellow. Of a highly acid but pleasant flavor. First rate for early cooking.

AUTUMN APPLES.

Fall Pippin. [*Syn.* Holland Pippin, erroneously.] Very large, roundish, obtuse, somewhat oblong-conical, a little flattened at the ends, sometimes with large obtuse ribs; color greenish, becoming a high rich yellow when ripe, with some large shades

of green about the crown before fully ripe; stalk large, in an acuminate cavity; basin deep; flesh yellowish, rather firm, becoming tender, rich, aromatic, excellent. Leaves sharply serrate; shoots vigorous, rather dark, diverging, becoming spreading; tree large. Late autumn, keeping into mid-winter. Mostly a moderate bearer--fruit sometimes water-cored. Excellent for cooking. Fine in nearly all localities,

Porter. Rather large, oblong-ovate-conical, regular, often ribbed at apex; bright yellow, sometimes a dull blush in the sun; stalk one inch long, slender, cavity rather small; basin narrow; flesh tender, rich sub-acid, of fine flavor. Fair and productive. Early autumn. Good throughout the northern states. Leaves sharp serrate.

Autumnal Swaar. [*Syn.* Sweet Swaar.] Large oblate, sometimes very slightly ribbed; rich yellow; stalk an inch or more long, varying from long and slender, to thick and fleshy at insertion; cavity and basin wide and slightly ribbed; flesh tender, yellowish, not juicy, with a very sweet, spicy, agreeable flavor. Mid-autumn. Growth vigorous, shoots diverging, tree spreading. One of the finest autumn sweet apples.

Fameuse. [*Syn.* Pomme de Neige*.] Medium in size, round, often oblate, even; handsomely striped and blotched with fine deep red on whitish ground---where much exposed, a deep, nearly uniform red; stalk three-fourth of an inch long, slender, cavity small; basin quite small, slightly wrinkled; flesh very white,* juicy, sub-acid, a little spicy, pleasant, but not rich. Late autumn. Shoots dark, diverging, somewhat flexuous.

Fall Orange. Large, roundish ovate, or oval; light greenish yellow becoming pale yellow; rarely a brown cheek; stalk half an inch long, cavity narrow; basin even-rimmed, slightly plaited; sub-acid, tender, fine---first rate if well ripened and fresh from the tree. Shoots very stout, dark colored. Tree bears while very young, fruit always fair.

Fall Wine. Medium size, striped with red. Sometimes clear red, where exposed to the sun. Tree a good bearer, of slow growth; fruit very slightly acid, aromatic, and a most excellent flavor. Season, middle of September to last of October.

Maiden's Blush. Rather large, oblate, smooth and regular, with a fine, evenly shaded red cheek or blush on a pale yellow ground; stalk short; cavity rather wide; basin moderate, even; flesh white, fine-grained, tender, pleasant sub-acid, but not rich, good second-rate. Mid-autumn. Tree spreading. Although de-

*Whence the name *Pomme de Neige*, or "Snow Apple."

cient in richness, it is admired for its fair, tender, and beautiful fruit, and uniform productiveness.

Rumbo. [*Syn.* Romanite of N. J.] Size medium; oblate, smooth, streaked and marbled with dull yellowish red, on pale yellowish ground; dots large; whitish; stalk an inch long, rather slender; basin broad, slightly plaited; flesh tender, rich, mild sub-acid, fine flavored, often excellent. Fine in nearly all localities. Late autumn and early winter. Known by the erroneous name of Seek-no-further in Philadelphia market.

Jersey Sweeting. Size medium; round-ovate, often oblong-ovate, somewhat conical; thickly striped with fine red on greenish yellow; stalk one-half to an inch long; cavity rather irregular; basin wrinkled, distinct; flesh whitish, very sweet, juicy and tender, good second rate or nearly first rate in flavor. Good in all localities. Early and mid-summer--immediately follows Golden Sweet. Shoots stout, short jointed; leaves serrate-serrate.

Alexander. Very large, conical, flattened at base, regular; streaked with bright red on greenish yellow; stalk small, cavity rather deep; calyx large, basin deep even; flesh rather crisp, sub-acid, second or third rate in flavor. A moderate bearer. Late autumn. Very showy, its only recommendation. Russian.

Yellow Ingestrie. Small, clear, rich yellow, tender, delicate juicy, when fresh, crisp, spicy. Valuable in this country from its being a very early and profuse bearer. Ripe in September. Of English origin.

WINTER APPLES.

Tollman Sweeting. [*Syn.* Tolman's Sweeting.] Medium or rather large, roundish oblate, slightly conical; clear light yellow, with a clear brownish line from stalk to apex; stalk nearly an inch long; calyx in a distinct, slightly wrinkled basin; flesh white, rich, very sweet. Excellent for winter baking. Keeps into spring. Young tree vigorous, upright, shoots becoming spreading; leaves wavy. Productive.

Baldwin. Rather large, roundish, with more or less of a rounded taper towards the apex; shaded and striped with yellowish red and crimson on yellow ground; stalk three-quarters of an inch long, rather slender; calyx in a narrow, slightly plaited basin; yellowish white, with a rich, mild, sub-acid flavor. Young tree vigorous, upright, shoots dark brown, diverging and ascend-

ing. Very productive. Ripens through winter. A first rate winter apple through New England and New York; unsuccessful in northern Ohio. The use of special manures, as lime, potash, and salt has, however, on those unfavorable localities, been attended with the best results, and produced fine fruit; showing the deficiency to be in the soil.

The Baldwin is liable to vary in character; the Late Baldwin of Maine, appears to be identical, but modified by external causes.

Red Romanite. [Syn. Carthouse, Gilpin.] Medium or rather small, roundish-oblong, nearly regular, apex flattened; striped and shaded deep red on greenish yellow ground; stalk one-half an inch long, slender; fresh, agreeable, mild sub-acid, second-rate. Keeps fresh till late in the spring. Much cultivated in Ohio valley and sold in New Orleans.

Dominie. Rather large, roundish-oblate; surface with narrow and distinct stripes of light red, on whitish yellow ground; dots or specks large, rough; stalk three-fourths of an inch long, cavity wide, deep, acute: basin deep, obtusely ribbed; flesh white, firm, mild sub-acid, spicy, fine flavored. Shoots very long, vigorous, diverging, leaves drooping, coarsely serrate, Productive. Keeps through winter.

Limber Twig [Syn. James River.] Large, dull red, flesh yellowish, very compact, not high-flavored, but cultivated in the south and west for its keeping properties. The tree is ill-shapen, with pendant branches, whence its name. Distinct from the Willow Twig.

Northern Spy. Large roundish, slightly conical, often flattened, sometimes slightly ribbed, handsomely striped with red; stalk and calyx deep set; flavor mild agreeable, mild sub-acid, fine. Keeps through winter and late into spring; preserves its flavor remarkably fresh. Shoots dark, spotted, erect, stout. To afford fine fruit, the tree must be kept thrifty by good cultivation. A native of East Blomfield, N. Y.

Rawle's Jannet. [Syn. Rawle's Jenneting, Neverfail, Rock-remain.] Medium in size, roundish, approaching oblong or obtuse conical, often oblique; color pale red distinct stripes on light yellow ground; stalk half an inch long; flesh nearly white, fine, rich, mild, sub-acid, fine texture, crisp, juicy, compact, about first rate. Growth slow; a profuse bearer, with a portion of the crop knotty or under size. Keeps through spring. Highly esteemed in the Ohio valley; does not succeed farther north. The blossoms open ten days later than usual, thus sometimes escaping spring frosts; and hence the name Neverfail.

Spitzenburgh, Esopus. Rather large, round-ovate slightly conical; surface a high rich red, rather obscurely striped; stalk three-fourth of an inch long, rather slender; basin shallow, and slightly furrowed; flesh yellow, firm, crisp, spicy, rather acid, nearly unequalled in its high rich flavor. Keeps through winter. Shoots ascending and erect, rather slender, leaves crenate. Usually a moderate bearer. Succeeds best in New York, its native state.

Van Levere. Medium in size, round-oblate, regular; color light red in indistinct streaks on yellow ground, often a high red where exposed; dots numerous; stalk uniformly about half an inch long, cavity and basin wide; flesh light yellow, with a rich, mild, sub-acid, excellent flavor. Early winter. Not always fair---succeeds best on light soils. Shoots spotted; leaves doubly serrate-crenate. Origin, Wilmington, Del.

Westfield Seeknofurther. [*Syn.* Connecticut Seeknofurther, New England Seeknofurther.] Medium or large, roundish, often slightly conical, obscurely striped with light dull red, more or less russeted, rarely covered wholly with russet; stalk slender; calyx partly open; flesh tender rich, spicy, of fine flavor.---October to January. Tree productive, fruit always fair.---Leaves sharply serrate. Succeeds well throughout the northern states and Ohio.

Wine Sap. Size, medium; round-ovate, slightly conical, sometimes obscurely flattened; color a lively deep red; stalk slender, three-fourths of an inch long, cavity acute; calyx small, in a finely plaited basin; flesh yellowish, firm, crisp, with a rich sub-acid or rather acid flavor. Keeps through winter. One of the best apples for baking. Growth rather irregular, fruit always fair. Differs from the Jonathan, in its smaller size, yellower flesh, smaller basin, and rather inferior quality.

Winter Pearmain. [*Syn.* Autumn Pearmain, erroneously, Old Pearmain.] Size, medium; oblong-ovate, ends somewhat flattened; color, narrow broken stripes of dull red on greenish yellow; stalk half an inch to one inch long, quite slender, cavity narrow; basin small, distinct, wrinkled; flesh dull yellow, or greenish yellow, tender, with a pleasant, sub-acid, lemon flavor. Does not freeze easily.

English Golden Russet. [*Syn.* Golden Russet of New-York.] Size medium; roundish, usually a little oblong, sometimes slightly flattened, nearly regular; surface sometimes wholly a thick russet; and at others a thin broken russet on a greenish-yellow skin; stem slender, from half an inch to an inch long,

being longest on oblate specimens ;* flesh fine grained, firm, crisp, with a rich, aromatic flavor. Shoots speckled ; tree rather irregular. Keeps through winter. This is distinct from the English Russet, of straight upright growth, and a very long keeper ; and from the *American Golden Russet* or *Bullock's Pippin*.

English Russet. [Syn. Poughkeepsie Russet.] Medium in size, roundish-conical or roundish-ovate, regular ; surface more or less overspread with brownish russet on light greenish yellow ground ; in large exposed specimens, wholly russeted ; stalk one-half to three-fourths of an inch long, cavity moderate, round ; basin smooth ; flesh greenish or yellowish white, texture fine, rather firm, with a rather rich, aromatic, sub-acid flavor.--- Keeps through spring, and often through summer for twelve months. Growth upright, shoots lively brown. A profuse bearer. A profitable market variety.

Newtown Pippin. [Syn. Pippin, Green Newtown Pippin.] Medium or rather large, roundish, oblique, slightly irregular, remotely conical or else a little flattened ; dull green becoming yellowish green ; often with a dull brownish blush ; stalk short, deep set, and surrounded by thin, dull, whitish russet rays ; basin narrow, shallow, flesh greenish white, juicy, crisp, fine-grained, with a high, fine flavor. Keeps through spring, and retains remarkably its freshness. Tree of rather slow growth, with a rough bark. The fruit is very liable to black spots or scabs, unless under high, rich, and constant cultivation, with a good supply of lime in the soil. One of the best fruits for foreign markets. A native of Newtown, Long Island, and has rarely succeeded well in New England.

Michael Henry Pippin. Size, medium ; roundish-ovate, apex narrow ; yellowish green ; stalk short, rather thick ; basin narrow ; flesh yellow, tender, juicy, high flavored. Growth upright. Through winter. Origin, Monmouth Co., N. J.

Pomme Grise. [Syn. Gray Apple.] Rather small roundish oblate, a grey russet ; stalk slender, cavity wide, rather obtuse ; calyx small, basin round ; flesh very tender for a Russet and fine-grained, rich, and high flavored. Canada. One of the best dessert apples for the extreme north.

Yellow Bellflower. [Syn. Bellflower, Yellow Belleflour.] Large, often quite large, oblong-ovate, apex quite narrow and conical, more or less irregular ; surface pale yellow, often with a blush ; stalk slender ; basin ribbed ; seeds long ; flesh very

*In all instances, where apples vary from oblate to a more elongated form, the stem is longer in the oblate specimens.

tender, fine grained, crisp, juicy, acid, becoming sub-acid; excellent. Keeps through winter. Shoots yellowish, rather slender, growth of the tree rather upright; succeeds best on rather light soils. Adapted to the climate of the northern and middle states, as far south as Kentucky, but fails by premature dropping in a few localities. More tart and less rich in cold summers, and far north.

Milam. A mild, sub-acid, winter fruit, resembling the Westfield Seekno further. The tree is slow in arriving to a bearing state, but then becomes very productive.

White Winter Pearmain. This variety is very highly esteemed wherever it has fruited—fruit very good, and the tree very productive.

Fulton. This is a native of the Illinois valley. The seedling was raised by Daniel Prince, of Peoria County, and planted out in the orchard of Peter Westerfield of Fulton, where the original tree now stands and is owned by Elijah Capps. Esq. The Fulton very much resembles the Maiden's Blush in appearance, is a fine, mild, crisp fruit, which keeps through winter.---The original tree has produced 13 good crops of perfect fruit in succession.

We have in the nursery more or less of the following varieties, but cannot afford to give full descriptions of them:

SUMMER APPLES.

Summer Sweet Paradise	American Summer Pearmain
Golden Sweet	Benoni
Bar's Apples	Harkness Bough
Kirtland Early	Red Astrachan
Hoosier June	Harvest Red Streak
Carolina Red June	

FALL APPLES.

Hawley	Ribston Pippin
White Apple	Detroit Red
Haskell Sweet	Pumpkin Sweet
20 Ounce	Dutch Codlin
Keswick Codlin	Stroat
Ohio Favorite	Siberian Crab
Cherry Crab	Sweet Swaar
Overman Sweet	

WINTER APPLES.

Roxbury Russet	Hartford Sweeting
Lady's Sweeting	Green Sweet

Victuals and Drink	American Pippin
Black Apple	Brabant Bellefleur
Chandler	Jonathan
Pryor's Red	Red Canada
Scarlet Nonpareil	Flushing Spitzenburgh
Wagener	American Golden Russet
Canada Reinette	Cumberland Spice
Fort Miami	Golden Ball
Lady Apple	Rhode Island Greening
Sweet and Sour	White Bellflower
Winter Sweet Paradise	Glori Mundi
Red Gilliflower	Winter Blush
Pennsylvania Red Streak	Maryland Red Streak
Washington Pippin	White Pippin
Late Bough	Green Sweet
Winter Swaar	

The following are to us new varieties, which have not fruited here :—

Fall Honey Sip	Virginia Quaker
Yellow Sweet	Striped Sweeting
Federal	Drap d'Or
Mountain Pippin	Clark's Large Winter
Kraam	Orange Pippin
Big Sweet	Sweet Swaar
Sapson	Hogan or Wells
Corse's Quince	Pomme De Rose
Miller's Seedling	Pomme Du Roi
Large Striped Pearmain	Sweet Baldwin
Daniel	Dewning's Paragon
Sweet Gilliflower	Perry Golden Russet

PEARS.

The blight of 1851 was so fatal to the Pear in this region that we have very few for sale which can be recommended. Among the few we have, may be named :

Bartlett	Julienne
Frederick D'Wurtemberg	Beurre D'Aremberg
Louis Bon De Jersey	Bloodgood
Grey Doyenne	Fine Gold of Summer
Also a large lot of seedling pear stocks 3 years old.	

PEACHES.

A good assortment of Peaches of the last years budding.

ORNAMENTAL TREES AND SHRUBS.

Evergreens.

White Pines	Hemlock or Sprucepine
Black Spruce	Red Cedar
Balsam Fir	White Cedar or American Arborvitae
Chinese Arborvitae	

Deciduous Trees.

Chestnut	Tulip Tree---Yellow Poplar
Alanthus	Silver Poplar
Lombardy Poplar	Sweet Scented Seringa
Lilac	Double Flowering Almand
Snowberry	Orange Quince
Larch or Tamarac.	

EXTRACT FROM THE

PATENT OFFICE REPORT---AGRICULTURAL.

FOR 1850-51.

Fruit Farm, Peoria County, Ill. November 26, 1850.

Sir :---The Postmaster at Peoria has handed me your circular of the 26th August, with a request that I would reply to the queries in regard to fruit culture.

1st. "Is the culture of fruit receiving increased attention ?--- Although this is a new district, settled principally within the last 12 years, yet the culture of good fruit, particularly of apples peaches, and pears, is receiving very decided attention. The number of grafted trees, planted in orchards in this county, must be more than 75,000. A considerable share of these have commenced bearing, and the result, thus far, has been entirely satisfactory.

The demand for young fruit trees is rapidly increasing, and the time is close at hand when there is likely to be more good fruit in this and the adjoining counties than is now to be found in any district of equal extent in the United States. The supply of young trees in the nurseries has heretofore been nearly equal to the demand; and there are now on hand and for sale, at least 150,000 in the county of Peoria alone. I can, therefore, answer your first query in the affirmative.

2d. "Cannot apples enough be grown upon an acre to render the crop a very profitable one to the farmer ?

The disposition to plant orchards, so universal in this district, indicates a general belief, that they will become profitable. In no part of the world do trees grow better than on the table lands of Northern Illinois ; and wherever they have attained sufficient age, they are very productive, and the fruit of most excellent quality. The specimens of apples and pears raised in this vicinity, and exhibited at the great fair at Syracuse, N. Y., in 1849, were at once pronounced to be the best and the most beautiful of the season ; and the same remark will hold good in regard to those exhibited at the State Fair, held in Cincinnati, Ohio, in October last. The table lands of this region, comprising, as they do, more than three-fourths of the whole country, are entirely free from the visitation of untimely frosts ; and this probably accounts for the great productiveness of our trees. This happy exemption may be attributed to the absence of every obstruction calculated to impede the full sweep of the winds, which come in immediate contact with the ground, and thereby retard vegetation in the spring until the whole atmosphere becomes warm. There is about ten days difference between the starting of vegetation on the table lands of the prairie and the timbered district in the same latitude east of us ; hence, we often escape the effects of a late spring frost, which often makes sad havoc in the timbered districts. For the above reasons, the apple and pear crops are about as certain with us as any other crop, and so it has been ever since the first trees of the early settlers came into bearing, [now about 15 years.] Another consideration in favor of the extensive culture of the apple in this district, is the fact that good winter apples, fit for exportation to a warm climate, cannot be raised successfully south of latitude 39° or 40°. Whenever a surplus beyond the home demand shall be produced, we have the great Southern market as an outlet ; and, by having the best article, we can always control that market. Our cultivators, instead of being influenced by a narrow monopolizing spirit, are anxious to see their neighbors go into the business, being confident that the more good fruit there is to sell, the more profitable the cultivation of fruit will become. It is very difficult to make even an approximate estimate of the profits of an acre of orchard. The oldest plantation of apple-trees in this vicinity is now 22 years old from the seed. The best bearing varieties in it have averaged about 15 bushels per tree, or 600 bushels per acre, for the last five years. It is probable that for the next 10 years they will average 20 bushels per tree, or 800 bushels per acre. The present standard price for winter

fruit is 50 cents per bushel at the orchard when gathered. With so large a market to the southward, where the apple never can be grown, we do not anticipate any material decrease in the price for a long series of years.

3d. We have no data upon which to make an estimate of the "comparative value of apples and potatoes, for feeding hogs and cattle." Indian corn is the universal article for feeding and fattening in this country, and where it can be produced so cheap, and in such profusion, nothing else is likely to supersede it for this purpose.

4th. "What varieties best to keep for winter use, and for exportation?" Being in the infancy of the apple culture in the West, the above are of necessity quite unsettled questions.-- There are some 200 varieties of late fall and winter apples now in the course of trial among us, many of which will be totally rejected, while a few only will meet the general approbation of cultivators. Among those which have been pretty fairly tried, and found well adapted to our soil and climate as winter apples, are the American Golden Harvest, English Golden Harvest, Flushing Spitzenburgh, Flaming Spitzenburgh, Michael Henry Pippin, Milax, White Bellflower, White Winter Pearmain, Red Winter Pearmain, Wine-sap, and Falton. Of such as are adapted to the spring market, the following have been well proved, viz: Green Newtown Pippin, Rawle's Janet, Limber Twig, and Red Romanas. (Orchard.) The celebrated Northern Spy has not yet fruited with us; the tree, however, grows well, and is hardy. The Falton, above named, is a new variety, and is believed by many to be the best apple now cultivated in the West.

5th. "Do you know any preventative or remedy for the blight on pear and apple trees, or the yellows on peach-trees?"

The yellows has never made its appearance among our peach-trees, and of the blight we have had only two visitations since the settlement of the country. The first, in the summer of 1842; and the last, in 1850. In both cases, the disease commenced after a severe dail in the atmosphere, which had been preceded by very great heat and moisture. Its attacks were confined, in a great measure, if not entirely, to trees the branches of which were stimulated to the utmost, either by severe pruning, or high cultivation on a rich soil. Where the affected branches were removed soon after the attack, the disease did not spread over the tree; but, where they were suffered to remain, it spread from branch to branch, often doing great injury. Whatever may be the cause of the disease, it is certain that it will spread by infection unless the diseased parts be removed, I am confident that

most of the injury done by the blight, in the years above named, was caused by a too free use of the pruning knife before the malady commenced, and a too limited use of it afterwards.

6th. The transplanting of trees is an operation so simple, so easily performed, so free from mystery, it would seem that all the world might understand it. Yet, many who attempt it either fail in toto or in part. For the benefit of the inexperienced, we will venture to state some of the causes of failure: 1st. In taking up a tree. If it is small, it is often pulled up; this strains and lacerates the roots. A tree should always be dug up, not pulled up. 2d. The work is often done with a dull instrument, and the few roots which remain are often bruised or broken. 3d. There is often an unnecessary exposure of the roots to the atmosphere. If properly handled, the most tender tree may be taken up, transported a thousand miles, and reset with safety; when a few hours and, in some cases, a few minutes of needless exposure will destroy it. By dipping the roots in diluted clay immediately after being taken up, then wrapping them in moss or some other substance which will not ferment, and will retain moisture, they may be kept out of the ground long enough to be carried any desirable distance. This work should be done in the spring or fall, when the temperature is above freezing and below the vegetating point. 4th. Another very common error in planting trees is a neglect to pare off all bruised and diseased roots at the time of transplanting. 5th. And last, though not least, the bungling manner in which the earth is placed about the roots, sometimes being shovelled in upon them, and then trodden down. No man can be a successful planter of trees if he is too proud or too lazy to get upon his knees and carefully pack the earth among the roots with his hands.

7th. *Budding*.---This operation we perform as early in July as it is practicable to obtain mature buds. The stocks should be cut off [above the bud] in seven or eight days after the insertion of the buds. In this way, if the stocks are thrifty, we are sure to obtain shoots from 10 to 30 inches long the first season. The best stocks for budding are seedlings, transplanted at one year old, and budded the second summer after.

Grafting.---Most of the grafting done here is what is called root-grafting. This is done in a warm room, in the winter season, upon the roots of one year's growth, taken up in the fall, and secured from the frost. The stock of the seedling should be cut off, leaving with the roots about three inches, upon which scions of the same size should be attached, and firmly tied with moistened corn-husk. They should then be packed in earth, in boxes;

8 inches deep, with the points of the scions left exposed about an inch above the earth. In this condition they should remain in the cellar until warm weather in the spring, when they should be exposed to the light and heat. After they begin to expand their leaves and to throw out roots, they should be taken from the boxes and transferred to nursery rows, where they push up a shoot 3 to 4 feet high the first season. It is a very good practice to take up root grafts the next fall after planting, and bury them securely during the winter, as they are tender when the growth is very great, and often suffer during a severe winter. This however, is seldom done.

Grapes.---The experience thus far acquired in grape culture in this newly-settled country is of course very limited, yet we are not without hope of a good time coming, when pure wine will supersede the poisonous beverages now too much in use. The Catawba grows well, is hardy and productive, so far as tried.---I have a vine on my premises, said to have been brought from the Rhine, which has produced a full crop of delicious grapes every season for the last ten years. This variety has been spread considerably over the country, and will soon be tried for making wine. The Isabella has proved to be a failure with us, except when trained upon walls. We have, in this vicinity, some seedling grapes from the valley of the Connecticut, which bear prodigious crops, the quality not first-rate. From the experience thus far had, we have good reason to believe that the bluffs of Illinois are as well adapted to grape culture as the hills in the vicinity of Cincinnati, where so much wine is made.

Yours, &c.

"WILL IT GROW ON THE PRAIRIES."

The above question is often asked, in regard to almost every tree, shrub and plant, which is not found "in a wild state," in this prairie region. It seems to be taken for granted, by many, that there is something in this prairie soil, which is hostile to the growth of trees. This idea, however, is very far from the truth. We have, during the last fifteen years, tried every foreign tree and shrub which we have been able to obtain; and without a single exception, they all grow and flourish on the prairies. The White Pine, Hemlock, Spruce, Red Cedar, White Cedar, Balsam and Larch, when transferred to a rich prairie soil, seem to be endowed with a new energy, which gives them a freshness and beauty they rarely possess when growing upon the barren lands where they are commonly found. The Chestnut and the Tulip tree, no where to be found wild in this portion of the country, when planted out upon the prairies, shoot forward with great rapidity. In short, there is no want of adaptation in our soil to the growth of trees. And it may be safely inferred, from the experiments already made, that all sorts and descriptions of trees, found any where upon the globe in a temperate climate, will flourish upon the prairies of Illinois, Wisconsin, Iowa and Missouri.

TREES AND GRASS.

Nothing can be more beautiful than clean, healthy trees, underlaid with a carpet of green grass. But let all planters remember that young trees *must be cultivated*. They must get a good start in cultivated soil before the grass is suffered to grow around them, or they can never flourish. Ornamental trees set in lawns or yards, where the plow cannot be used, should have a space of three to five feet in every direction from them, kept clean from weeds and grass, and the soil kept fine on the surface by repeated stirring. If this is thought to be too much trouble, a coating of tan bark, straw, or rotten chips, sufficient to keep down the grass and weeds, will answer much the same purpose as the frequent stirring of the surface soil. It is by no means uncommon to see trees set in the turf of a hard pressed door yard, and the grass suffered to grow close around the stem. Such a course, though not always fatal to the life of the tree, gives it a stunted and poor appearance, which is any thing but ornamental.

EVERGREEN TREES.

The time is at hand when every farmer or householder, who shall be destitute of beautiful evergreen trees about his premises, will justly be regarded as destitute of taste and refinement. There is no difficulty in obtaining them.—Nurserymen can and will have them to any desirable amount, if they can be sold. They should be taken from the woods when quite small, and cultivated from three to five years in nursery rows, when they are fit for planting out permanently. They are often taken directly from the woods, and hawked about the country for sale. Such trees rarely live, and when they do, they are not adapted to their new situation. As to the merits of different varieties of evergreens, some give a preference for one, and some for another. But they are all beautiful, and display their beauty to the best advantage when seen together. A door yard or lawn which contains all pines, all cedars, all firs, or all any thing else, is not so desirable as one in which a great variety of trees are blended together. In the arrangement of ornamental trees, the greatest art is to conceal all art; that is, to have them appear as though they had come up from seed without the care or effort of man. This sentiment is what renders trait, formal rows and close pruning, such an outrage to the eye of taste.—Although some deciduous trees may be pruned a little, very little, all good cultivators will agree that evergreens should never be touched with the pruning knife. In order to develop their greatest beauty, they must stand just as the Lord made them.

HEDGING.

Did you ever happen to think how the prairie country would look were it all divided off into contented fields by living hedges; with the proper accompaniment of good buildings, surrounded by plantations of well selected ornamental trees—an orchard to match,—with belts of timber dividing the farms, &c. If you have never dwelt upon such a picture; if you must see it drawn out in material forms, in order to appreciate its grandeur and beauty, you will, of course, have to “wait a little longer,” when all this and much more will be realized—will be seen and felt. There is much, even now, that gives a cheering promise of the future. In many places, beautiful green hedge rows are springing up, to supercede the unsightly zigzag rail fence, which so forcibly reminds us what a ruin has been made among the best trees of our scanty forests. Neat and tasty dwellings are appearing, as if by magic, in the wildest portions of our wide-spread prairies, and in many cases these are surrounded with young plantations of beautiful trees and flowering shrubs. A few years only will be necessary to bring our whole country into a high state of cultivation. Wealth is rapidly accumulating among the tillers of the soil; and when wealth is accumulated, taste and elegance in rural embellishments must follow.

But it is of Hedges and Hedging that we propose now to speak, and we wish to do so in sober earnest. The great importance of this subject will be seen at a glance, when we reflect that about one-sixth part of the land must be devoted to the rearing of timber for rail fences, wherever that system prevails.—One sixth part of the land in the State of Illinois, amounts to rather more than eight thousand square miles, an area equal to the whole State of Massachusetts, and five-fold as productive. This eight thousand square miles, now and for ever wanted for rail timber, if we are always to have rail fences, can, if hedges are adopted as a system of fencing, be brought into cultivation, and supply more than a MILLION OF PEOPLE WITH FOOD. Again, in many districts of the State, this rail timber must be planted and reared from seed, before the country can be fenced and brought into cultivation. This must of necessity require a long time; but if hedges are resorted to, the thing can be done very quickly. Now if it can be proved that hedge fences are *cheaper* than those made with rails or boards, are more *safe* and more *durable*, it would seem that most if not all the objections against their adoption were done away.—In regard to the cost of hedge fences, we have considerable experience, and can therefore speak with some degree of confidence. We have, at Fruit Farm, twenty miles west of Peoria, a considerable amount of Virginia Thorn hedge, now at maturity. Our first planting was 100 rods in the spring of 1846. This was plashed in the spring of 1851, and is now a good and sufficient fence against horses, cattle, sheep and swine. In the spring of 1847, we set one hundred and sixty rods of the thorn, which was also plashed in the spring of 1851, and is now, to all intents and purposes a *fence*. The remainder of our thorn hedges are too young to plash, but are all doing well. The reader will be surprised to learn that these hedges, which are now complete, and are worth twice as much as any rail fence in the country of the same extent, have cost less than *sixty-five cents per rod*; while the common rail fence costs, any where in this vicinity, about one dollar per rod. It is very true that it requires a considerable degree of care and attention to plant, cultivate and plash, a thorn fence, in order to insure success. It is not all physical effort—mere “manling and hauling.” There is considerable danger of a total failure, with a cultivator who is very careless and slovenly in his management. The man who fails to raise a corn crop as often as every third year, not from the want of good land or general seasons, but from “bad luck,” had perhaps, better let a thorn hedge alone.

The PRUN or PRIVET, makes a very beautiful hedge when properly attended, and is easily propagated by cuttings. We have 45 rods of this, which is very beautiful, and is a good fence against horses, cattle and sheep. The privet, however, is supposed to be too short lived to answer well for the general purposes of fencing.

THE OSAGE ORANGE, Bois d'Arc, (pronounced bodark,) or *M'Laura*. Much more of this is now being used for hedges than the thorn. Not because it makes a better hedge, (for nothing can,) but because it will grow into a fence two or three years sooner, and can be raised and cultivated with about half the expense. The Messrs. Overman, of Fulton, and ourselves, sold last spring, plants enough of the bodark to set out about 200 miles of hedge rows; and it is probable that others furnished enough within the State of Illinois, for 400 miles more. The oldest bodark hedges in this vicinity, were set in the spring of 1849; and in all cases where the plants started well the first season, they are now, after a growth of three seasons, a good and sufficient barrier against horses, cattle and sheep. A living fence, grown in three years, is something new in the history of the business. But it has been done with the bodark in hundreds of cases. The astonishing cheapness and ease with which this kind of hedge is got up, is not among its least recommendations. We have now a contract for three miles of hedge, which was set last spring, for our nearest neighbor. We are to cultivate and take all the care of it until it is a fence against horses, cattle and sheep; and then (and not until then) we are to get the enormous sum of "fifty cents per rod." But the best of the joke is, we are likely to make something like \$200 out of the contract, and the gentleman for whom it is made, at the end of three years, will have a beautiful, permanent living fence, at half the cost of a rail fence.

There have been three objections started by many against the Osage Orange, (we insist, however, upon calling it bodark,) which it may be well to notice in this place.

1st. It grows into a tree.

2d. It winter kills.

3d. It grows so fast that it will require a great deal of labor to keep it within the proper dimensions of a hedge.

1st. This objection is equally good against all plants used for hedging—they will all grow into trees if so treated as to give them that tendency. The merits of a hedge plant consists principally in its longevity, its spines, and above all, its capacity to sprout after being clipped back, (or in gardener's phrase,) "bear the shears.") The bodark is remarkably well qualified to reproduce new wood, by sprouts, when cut back or shorn, and will become a very dense mass when so treated. Its spines are very formidable, and the wood of the tree is as durable as cedar.

2d. As to its winter killing, it is not more liable to this objection than the common black locust. Both, when grown upon a rich soil, are liable to kill down more or less the first winter, and in some cases the second. In fact, most trees which are remarkable for longevity, are quite tender when young.—White Pines, for instance, are so extremely tender for two or three seasons, when grown from the seed, that it is very difficult to start them. But when they have got a firm footing in the soil, they will push forward with firmness for five or six centuries.

3d. The objection in regard to its rapid growth is not well founded. It is true that it grows rapidly when young; but this is not the case as it gets older, and it becomes crowded into a hedge row.

TRIMMING HEDGES.

There is much difference of opinion as to the best mode of trimming a hedge; and it is difficult to give directions which it would be safe to follow under all circumstances. We venture, however, to give a few hints, which may be of some service to those who have but little experience.

1st. In all cases be careful (by cutting back or bending down,) to secure a close and compact base to your hedge—more especially if you live in a community where the hog is a favorite, a pet animal, and is suffered to go where he pleases.

2d. Very little clipping or trimming should be done in hot weather, when the plants are in full leaf. A sudden deprivation of leaves will seriously injure a tree in hot weather, and is often fatal.

31. When a hedge has, after repeated clipping, attained a proper height for a fence, it is indispensable that it be kept down to the proper dimensions, by clipping off the upper shoots every spring. This is done very easily with a pruning knife, or with the half of an old scythe blade, rigged up as for cutting corn. If this is not done the upward shoots will draw all the sap from the lower branches, which will soon become stunted and begin to die out and decay.

4th. A hedge can never grow thick and compact, when shaded, either by woods, or by other trees growing near. It must have a full exposure to the light and a free circulation of the air.

THE APPLE TREE.

This tree is found in almost every climate, from the tropic of Cancer nearly to the arctic circle. But there is a belt around the Globe, where it flourishes better and becomes more perfect, than at any point either North or South. This belt is not a straight line, but is considerably varied by the elevation of different districts above the sea. Upon the table lands of Illinois, which are not more than four hundred feet above tide water, the centre of the belt producing the best apples is believed to be between lat. 40 and 41°; and the same may be said of Eastern Pennsylvania and New Jersey. But on the higher lands, adjoining the Alleghany mountains, and upon the mountains, we find the favorable climate of the apple to extend much farther South. However, there is no portion of the Globe where the apple is produced in greater perfection, than upon the table lands of Illinois. We make the above remark deliberately, and without fear of successful contradiction. We have had fair opportunities of comparison with the fruits of other districts, East and West, at the largest fairs ever held in the United States. We have had them carefully examined by good cultivators from Europe, and from all parts of this country, and the uniform opinion of our fruit is, that they are the most perfect of their kind. We are aware that much has been said about the diseases of fruit trees in this country, by certain learned gentlemen, who are fond of making a display in the Agricultural papers. But we challenge the world to show more beautiful, thrifty and healthy orchards. Add to all this, our table lands, (which comprise at least four-fifths of the whole country,) are peculiarly exempt from untimely frosts in the spring. Our apples have not, on the high lands, been destroyed by spring frosts *during the last ten years*. If then, the apple be with us, the most perfect to be found any where, and is at the same time a certain crop, it is not only our interest, but our duty to produce this fruit in sufficient abundance to supply all that immense region to the South of us where it is either not raised at all, or only for summer use. The South-western states are now principally supplied with late Fall and Winter fruit from the Valley of the Ohio. But we can raise a fairer and better article, and can send it forward at less expense. There is no fear of a surplus of apples in Illinois; for when the home market is supplied, we can send the remainder to the cotton and sugar region of the South, or if need be, to the miners and lumbermen of the North.

Ten years ago, it was a common remark that it was of but little use to set out orchards, for the reason that by the time they came into bearing, apples would be so plenty as to be of little value. Well, ten years have rolled by, and the article sells better now than it did then. The amount of fruit has, it is true, greatly increased in that time; but the increase in the demand has fully kept up with the supply.

HIGH AND LOW TRAINING.—It was formerly the fashion among many people to trim their apple trees so far that a horse with his rider, could pass under the limbs. But the experience of the last few years is very much against the system of high training. It has been found that trees grow better, much better, and are more hardy, when their tops are suffered to grow near the ground. The fruit is also better, from the increased vigor of the tree. The most thrifty and beautiful specimens of trees to be found in our orchard are those which throw out their branches within *two feet* of the ground. They

are more than twice as large as high trained trees planted at the same time. In fact many young orchards upon our windy prairies, are nearly ruined by being *trimmed up*. If your trees from the nursery are tall and slim, be sure to *trim them down*—that is, cut back their tops until they will stand alone firmly without a stake. If, after the leaves begin to shoot forth, the stem is not strong enough to sustain the top, then cut back the *highest*, not the lowest limbs. By *trimming up* you increase the difficulty.

It is a common fault of nurserymen to crowd their trees so thick in the nursery rows as to cause them to grow too slender; or rather, it is a common fault of purchasers to require trees with a slender and smooth body—such trees are not half so valuable as low trees with a strong stem. We have for the last ten years set about 100 trees annually, which were so low and scrubby in the nursery that no one would buy them; and they are now among the most beautiful to be found in the country.

Pruning young orchard trees, at any time, is, on the whole, a poor practice. If a tree be well planted out, and the ground kept clean, and cultivated in its vicinity, it will throw its branches and form a beautiful head, precisely at the right elevation. No regulation from the pruning knife is required. Give it a chance to develop itself precisely as nature dictates, and you may rest assured the thing will be done right.

TRANSPLANTING TREES.

The transplanting of a tree is an operation so simple, so free from mystery, that it would seem all the world might understand it. Yet it is notorious, that many failures take place, either from "ill luck," from a want of knowledge, or from some other cause. Having succeeded very well during the last forty years, in getting trees "to live," we feel quite competent to give some directions, which, if carefully followed, will be likely to result in "better luck."

1st. Trees when removed from the nursery, should in all cases be *dug up* with a sharp spade—never *pulled up*. They are often injured by the straining of the roots about the collar.

2d. The top should be trimmed, or "shortened in," about as much as the roots have been in digging.

3d. The roots should never be exposed to the air longer than a few minutes, and should be kept slightly moist from the time of digging until they are again planted out.

4th. Trees should never be planted out when the ground is *mucky*.

5th. The hole made for the roots of a tree should always be large enough to receive them without bending; and where the soil is hard or poor, it is a good plan to dig much larger and deeper than is necessary to receive the roots of the tree, and then fill up with fine rich soil.

6th. Before the soil is put in about the roots of a tree, it should be thoroughly pulverized and fine. The filling must be done by *the hands*—it cannot be well done in any other way. Fine earth must be firmly packed in among the roots, leaving them as near in their natural position as possible.

7th. After the earth is well packed among the roots, the remainder of the hole may be filled with the spade—and then it should be trod down firmly, leaving the surface dishing next the trunk of the tree, to retain the spring rains.

8th. Look well to your trees during the succeeding summer, and see that the soil is kept clean from weeds, and at all times light and well pulverized.—More trees are lost by neglecting this last particular, than from bad planting

Selecting Trees from the Nursery.

If you are not well informed as to the qualities of the different varieties of cultivated fruit, it is better to trust your selection to the nurseryman of whom you purchase. If he be a man of common honesty, and has a proper regard for his own interest, he will do his best to supply your wants in such a manner that you will be satisfied when your trees come into bearing. In fact the

nurseryman has a greater interest in the selection being right, than the purchaser; for his reputation and success in business depends upon the character of the trees which he sells. Be careful, however, of trusting the man too far who is always boasting of his great acumen and the perfection of his fruit—especially if he has not tested the accuracy of his descriptions upon his own premises. And more especially beware of the nurseryman who, either in conversation or in the public prints, is in the habit of throwing out insinuations against those engaged in the same calling. Such a man must be a “little down,” if not rotten at the core, (whatever his fruit may be,) and is therefore, not to be trusted.

Profits.—It can hardly be necessary, with our present rapidly increasing commerce in fruit, to point out the pecuniary profits resulting from its culture. But those who have only raised the more common, or second rate sorts, can hardly appreciate the heavy returns from the finest, under the best culture.—To such a few examples may be interesting.

C. A. Cable, of Cleveland, Ohio, obtained in 1845, from an orchard of one hundred cherry trees, twenty years old, more than one thousand dollars. The trees were twenty feet apart, and no other crop occupied the ground, which was enriched and kept well cultivated.

Hill Pennell, of Derby, Pa., sold in 1846, two hundred and twenty-five dollars worth of early apples, from half an acre.

A farmer near Poughkill, N. Y., sold fifteen hundred dollars worth of plums in a single season. Richard L. Hand, of Mendon, Monroe county, N. Y., sold in 1846 four hundred and forty dollars worth of Roxbury Russet and Northern Spy apples, from one acre of orchard.

James Laver, of Philadelphia, sold three hundred dollars worth of Isabella and Catawba grapes, the fourth year from planting, from three-eighths of an acre, or at the rate of eight hundred dollars per acre.

Dunn Hatch, of Camden, N. J., obtained from four trees of the Tawksbury Dixon, one hundred and forty bushels of apples, or thirty-five from each tree; of these ninety bushels (of about three pecks each) sold late in the following spring for one dollar per bushel.

I need not almost beyond number, may be given where single trees have yielded from five to ten dollars a year in fruit, and many instances where twenty or thirty dollars have been obtained. An acre of such would be equal to any of the preceding instances. If one tree of the Rhode Island Greening will afford fifty bushels of fruit, at a quarter of a dollar per bushel, which had often occurred, forty such trees on an acre would yield a crop worth four hundred dollars. But taking one quarter of this amount as a low average for all seasons, and with imperfect cultivation, one hundred dollars would still be equal to the interest on fifteen hundred per acre. Now, this estimate is based upon the price of good winter apples for the last thirty years, in our most productive districts; let a similar calculation be made with fruits rarer and of a more delicious character. Apricots, and the finer varieties of the plum, are often sold for three to six dollars per bushel; the best early peaches from one to three dollars; and pears, from hardy and productive trees, for an equal amount. Of the three former kinds, two to five bushels per tree, with good management, is a frequent crop; and on large pear trees five times this quantity. An acquaintance received eight dollars for a crop grown on two fine young cherry trees, and twenty-four dollars from four young peach trees, of only six years growth from the bud. In western New York, single trees of the Dorente or Virgatiou pear, have often afforded a return of twenty dollars or more, after being sent hundreds of miles to market. An acre of such trees, well managed, would far exceed in profits a fine hundred-acre farm.

But the anxious inquiry is suggested, “Will not our markets be surfeited with fruit?” This will depend upon the judgment and discretion of cultivators. With the exception of the peaches of Philadelphia, and the strawberries of Cincinnati, a great deficiency is still felt in our large cities. Of these two fruits, large plantations are brought rapidly into bearing. The fruit when