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# Descriptive

# CATALOGUE

## OF

"A BRANCH OF NORTH STAR"



NORTH STAR CURRANT

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FROM A PHOTOGRAPH.

# The JEWELL NURSERY CO.

ESTABLISHED 1868.

## LAKE CITY, I

Seacher Lith. Co. Rochester, N.Y.

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DESCRIPTIVE CATALOGUE

— OF —

Fruit *and* Ornamental Trees,

SMALL FRUITS,

Shrubs, Roses, Bulbs, Etc.,

GROWN AND FOR SALE BY

THE JEWELL NURSERY CO.,

CAPITAL STOCK \$100,000.00,

LAKE CITY, MINNESOTA.

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ESTABLISHED 1868.

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WINONA, MINN.:  
JONES & KROEGER, PRINTERS AND BINDERS.

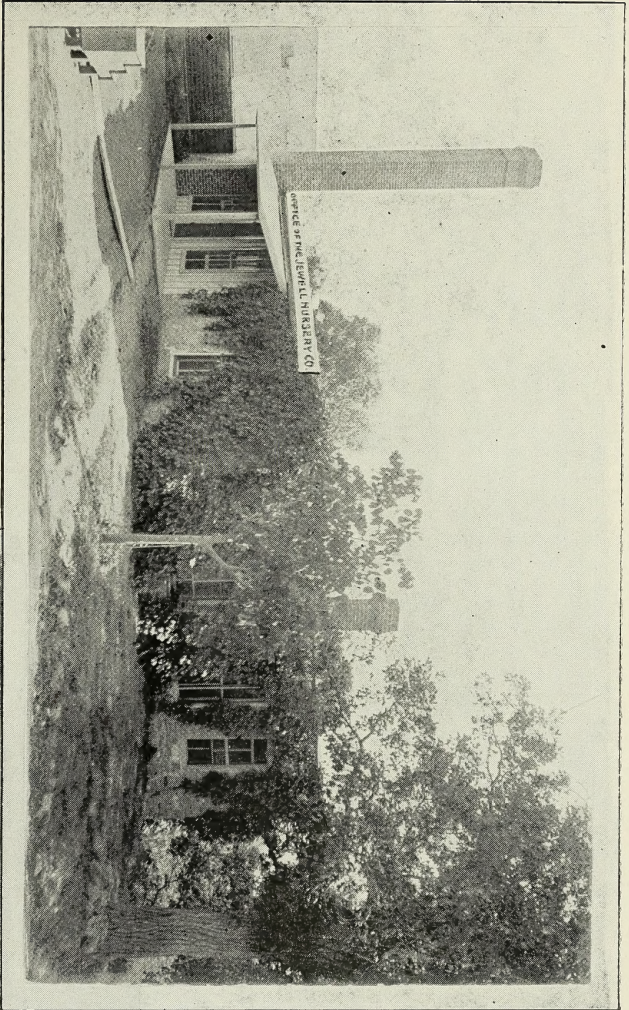
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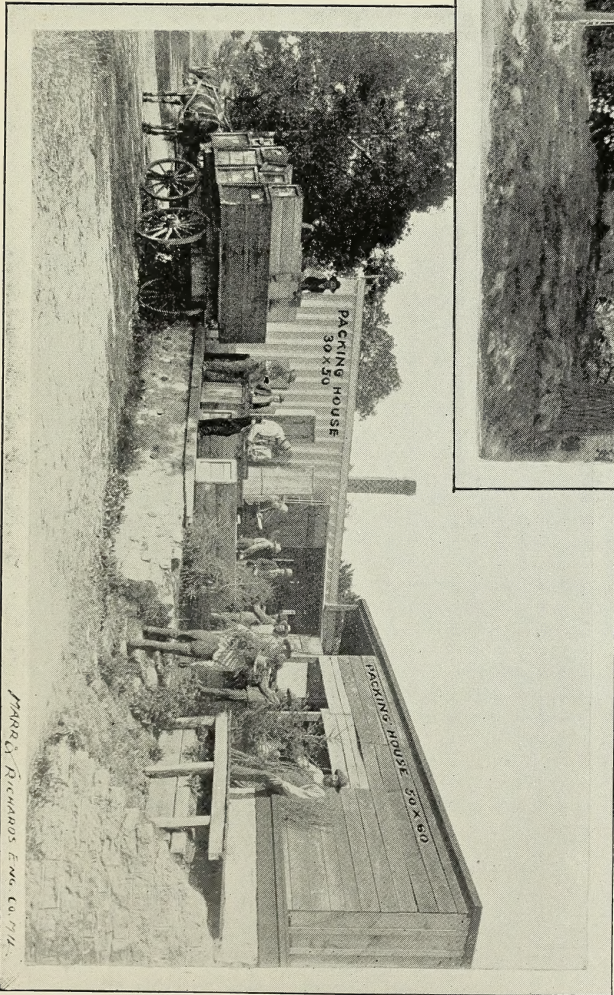
... OF ...

**The Jewell Nursery Co.,**

SHOWING A GLIMPSE  
OF THE . . . . .

**GREEN HOUSES**

2,000 SQUARE FEET OF GLASS.



OUR LARGE AND CONVENIENT

**PACKING HOUSE,**

WHERE . . .

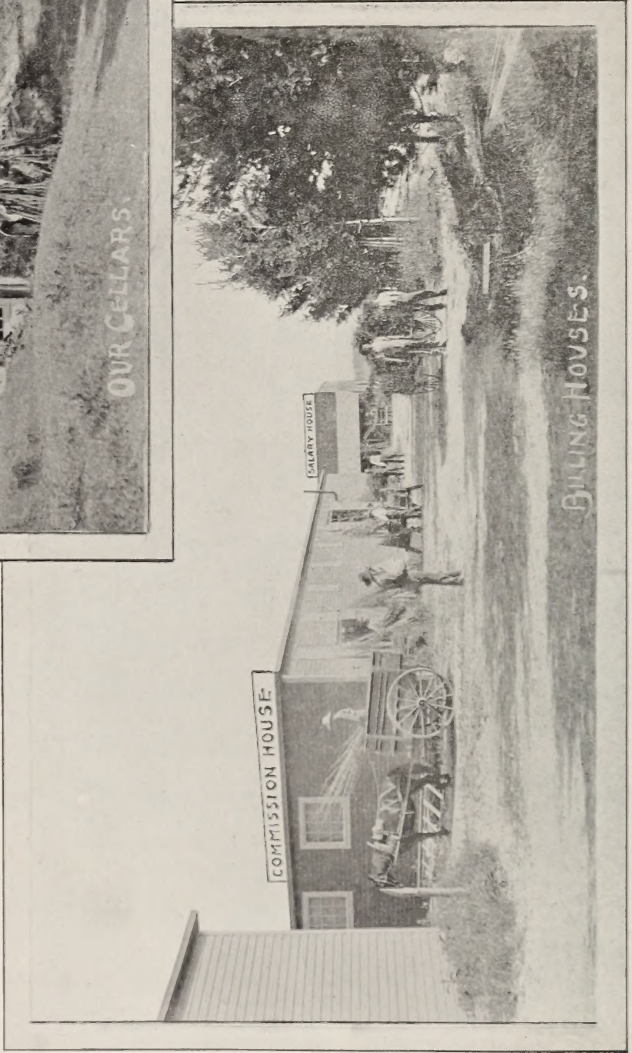
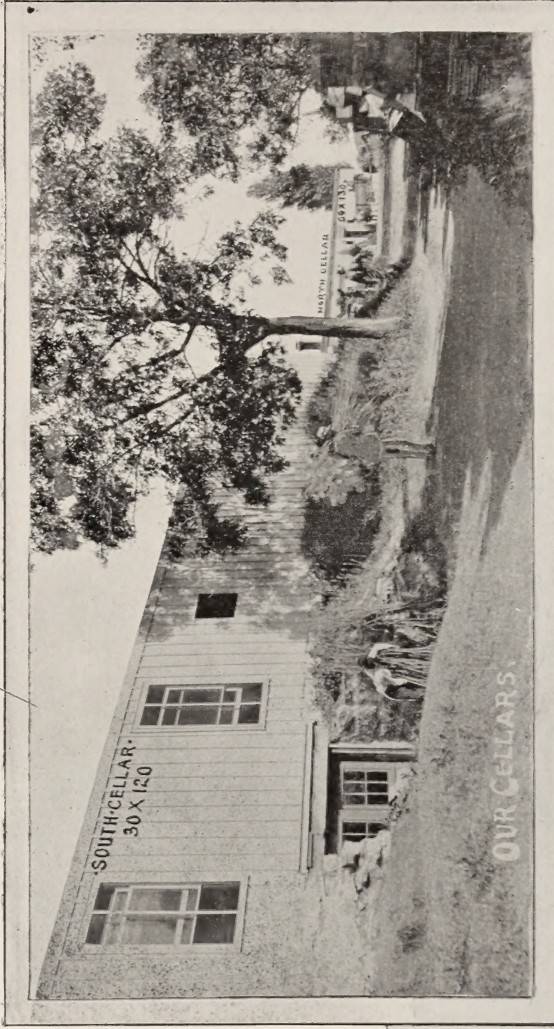
**TREES AND PLANTS**

. . . . . ARE CAREFULLY BOXED AND SHIPPED.

*Thos. C. Richards, Em. Co. N.Y.*



COMMODIOUS BUILDINGS FOR PUTTING UP  
 . . . ORDERS WITHOUT . . .  
 EXPOSURE TO THE SUN AND WIND



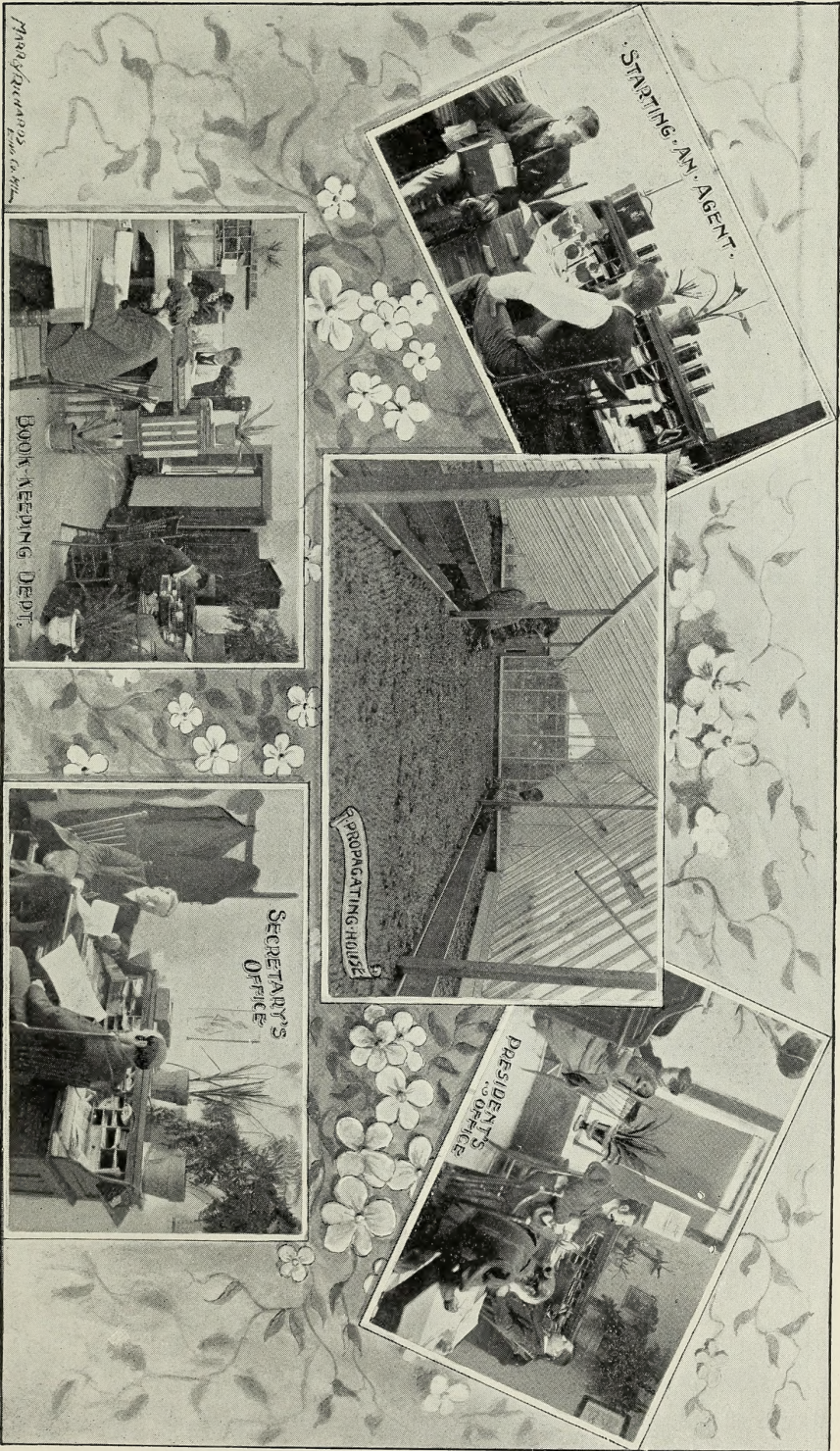
A VIEW OF OUR . . .

## CELLARS.

South Cellar, - - - 30x120 ft.  
 North Cellar, - - - 60x130 ft.

FURNISHING AN IMMENSE COLD STORAGE FOR  
 OUR STOCK.





STARTING AN AGENT.

PROPAGATING HOUSE

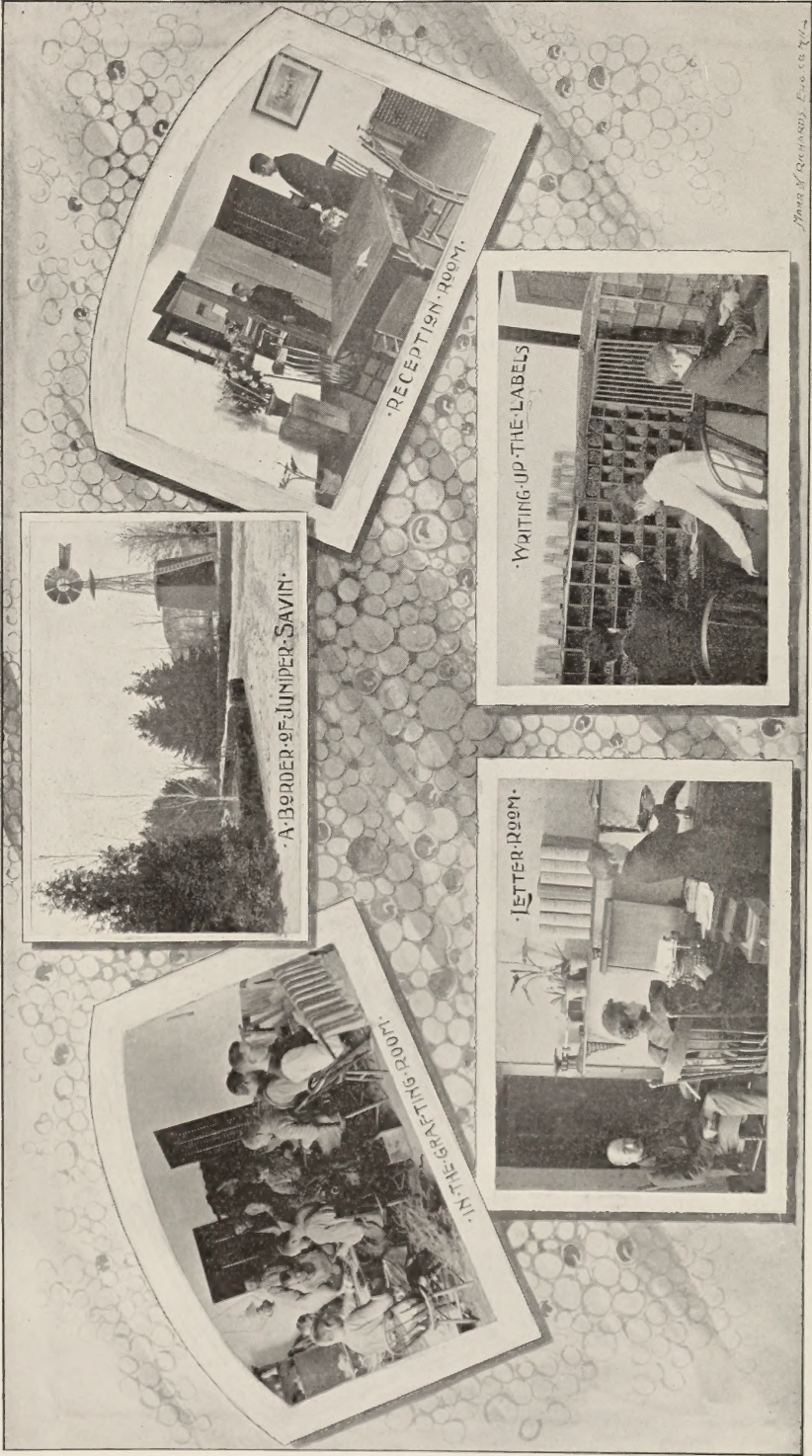
PRESIDENT'S OFFICE

SECRETARY'S OFFICE

BOOK-KEEPING DEPT.

Photographed from within

INTERIOR VIEWS.



*Photo of Reception Room, etc.*

INTERIOR VIEWS OF OUR OFFICES.

A BORDER OF JUNIPER SAVIN.

IN THE GRAFTING ROOM.

## TO OUR CUSTOMERS.

---

**T**HE grounds of the Jewell Nursery Company are located in and adjacent to Lake City, Wabasha county, Minnesota, and from the character of the soil, nursery stock of the finest quality is produced. The fact that we are **the most northerly commercial nursery** in the United States or Canada, guarantees the hardiness of the stock grown here. The Chicago, Milwaukee & St. Paul Railway traverses our grounds. The Chicago, Burlington & Northern Railway station is distant two miles from our packing houses, on the east side of Lake Pepin; these, with the different lines of steamboats plying on the Mississippi river, offer unusual advantages for prompt, speedy and economical delivery of stock.

In presenting our descriptive catalogue, we are pleased to announce that our stock of trees and plants is of unusually good quality, more extensive than in former years, and the new varieties offer strong inducements to our patrons. The utmost care and best attention will be given to all orders.

We have very commodious and convenient packing houses, grounds, and cellars for storing and handling nursery stock. Our complete facilities in these matters enable us to handle stock with the best of care and attention.

**REMITTANCE FOR AMOUNT** must, in all cases, accompany the order.

**HOW TO SEND MONEY.**—Money can be sent safely either by express, or post office order, bank draft, or registered letter. Always send by one of the above methods at our risk.

**WHEN YOU ORDER**, do not forget to sign your name. Write it plainly and give your full address, including **town, county and state**.

**POSTPAID BY MAIL**, means, That is all it will cost you. Each package will be done up securely, plainly directed, and the full postage paid on it by us, and **safe arrival guaranteed**; and we will refill any order that is lost on the way, or has any of its contents injured, free of charge.

**BY EXPRESS OR FREIGHT** means that we will deliver the stock to express or railroad here, and the purchaser pays all the transportation charges upon receipt of goods.

**WE DO NOT SEND C. O. D.** unless 25 per cent. of the money is sent with the order. Everything is plainly priced, and return charges on money are an unnecessary expense.

**IN CORRESPONDING** always **sign your name alike** each time.

Regularly authorized agents carry our printed certificates of agency, bearing the imprint of our corporate seal.

**TERMS CASH**, unless by special agreement. Packing done in the most careful manner.

Packages will be delivered at R. R. station, after which they are at the risk and expense of purchaser, and in case of loss or delay the purchaser must look to the forwarding companies alone.

No claims will be allowed unless made within ten days after receipt of goods.

We exercise care that all our stock shall be genuine, unmixed, and true to name and quality represented, and accept your orders with the understanding and agreement that should any prove untrue to name, we will replace them with the genuine, but are not liable for damages other than the amount received for said stock that proves untrue.

Correspondence solicited. **LIVE AGENTS DESIRED.**

Respectfully,

**THE JEWELL NURSERY CO.,**  
Lake City, Wabasha Co., Minn.

# ANNOUNCEMENT

— OF —

## THE JEWELL NURSERY CO.

---

**I**N the year eighteen hundred and sixty-eight Dr. P. A. Jewell established this Nursery, in the picturesque valley of Lake Pepin. His brother-in-law, J. M. Underwood, who is now president of this Company, was then employed as his foreman. They did not seek a location where fruit grew easily and in abundance, and where there were no obstacles to its propagation, but chose to join the advance guard and, if possible, lead to success in its culture.

The business was started with only ten acres of land, but they possessed a **large stock of determination**. For ten years the management of Dr. Jewell brought great credit to the Nursery and rapid progress was made in developing those varieties best suited to this cold climate. Upon his death in 1878 the business passed into the hands of J. M. Underwood, and in 1884 The Jewell Nursery Company was regularly incorporated under the general laws of the state of Minnesota to transact the business of growing and selling nursery stock and **pure bred** Holstein-Fresian cattle.

We have grown from the start, and, although we have passed through severe experiences, we are now strong and vigorous like the stock we supply. Hundreds of acres are devoted to the Nursery, the Holsteins, and farming. Our packing houses, green houses, cellars, and offices are commodious, covering an area of 30,000 square feet, and are models of comfort and convenience.

The first year it only required one horse to do the work; now it takes thirty. A large force of men are employed and we annually pay out for labor in the Nursery more than \$25,000. It takes over 200,000 feet of lumber annually to box the stock we sell, amounting to over one hundred and fifty car loads. We have spent more money in experimenting and developing those varieties of fruits and flowers best adapted to this climate than all other experimentors combined. We mention these facts to show that we have been working for the best interests of Minnesota and the whole Northwest, and that we have been successful and enjoy the confidence and liberal patronage of the public.

For the future we promise to keep fully up with the times. Our planting this season will amount to over **two million** trees and plants. Some of the principal items are four hundred and fifty thousand apple, ten thousand plum, one hundred thousand shade, ornamental, and evergreen trees, one hundred thousand grape, two hundred and fifty thousand currants, two hundred thousand raspberries and blackberries, and one hundred thousand ornamental shrubs, climbing vines, and roses.

A pleasant adjunct to our Nursery business is our fine herd of Holstein-Fresian cattle. Those interested in stock raising will do well to get our list and prices of this breed of cattle. The Holsteins are large, healthy, vigorous, and handsome, and, while they stand at the head of all breeds for milk and butter, they take on flesh easily and make excellent beef.

**Illustrations.**—In order that our customers may become better acquainted with us and our place of business, we have introduced some engravings from photographs that faithfully portray our surroundings and show our excellent facilities for doing business. We shall be glad at all times to have our friends visit us and enjoy the various features of interest that are always found in a **first-class, well-conducted nursery**.

Thanking our friends and patrons for their past encouragement and patronage, we are,

Respectfully,

THE JEWELL NURSERY CO.

# HARDY FRUITS.

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## Suggestions as to the Location, Planting and Care.

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### LOCATION.

The best is a high, northern exposure. If you do not have such a location, select varieties best adapted to the one you have. Some of the best orchards in the state are on a southern exposure, but the soil is good and their care of the best. High ground is desirable in order to secure a good circulation of air.

### SOIL.

A clay sub-soil is best. It prevents drying out. If you do not have a clay soil, mulch heavily to keep the ground cool and moist.

### LAYING OUT GROUND.

To lay out ground properly for an orchard, set stakes five feet long around the outside, the proper distance apart, then set a row each way through the middle and in line with the outside stakes. Then dig the holes and set the trees by sighting through to the stakes. In this way the trees will be in **perfect row** in all directions.

Where a straight row in the garden is required, use a long, one-half inch rope, tie each end to a short handled dibber and thrust them into the ground stretching the rope **very tight**, walk along on the rope and it will leave a nice mark to set by.

### DIBBER.

A very useful implement is the dibber, which is made in the following manner. The blade should be made from one-fourth inch iron, eight and one-half inches long, two and one-half inches wide when finished; draw it out on both sides to an edge and to a point and with a stout shank six inches long. The handle should be four and one-half feet long, two inches in diameter, and a ferule on one end. Insert the shank of the blade in the handle. With this a man can make the holes easily at one motion. A boy puts the plant in and with another thrust of the dibber the hole is tightly closed.

For setting large plants a spade can be used instead of a dibber.

### PLANTING.

Before planting cut trees and shrubs back vigorously and trim off injured roots. Mud the roots well in thick mud and plant before it has time to dry. **Never expose roots or tops to sun or wind before planting.** Holes for trees should be large and deep unless the soil is wet and heavy, when they should be set the usual depth.

**How to Set a Tree or Shrub.**—Mind this rule and you will succeed. Sift some fine, rich dirt among the roots, just enough to cover so the boot will not injure them, then with the **heel** and all the strength and weight you can command, **stamp the earth down until it is solid**, then fill in a little more dirt and repeat the stamping until the hole is nearly full; then fill the rest of the hole with loose dirt and leave it with the soil pitching toward the tree from all directions. **If it is properly set you cannot pull it up.** Do not try to put all the earth back, but throw away some. The same general rules apply to setting everything, from a strawberry plant to a shade tree.

**First, do not expose them. Second, mud the roots; it is better than pouring on**

**water. Third, set firmly so that you cannot pull up the tree or plant without spoiling it. Fourth, leave ground loose on top and slanting toward the tree or plant.**

#### CULTIVATION.

It is always best to cultivate. Keep the ground loose on top and clean; do not cultivate deep. Cease cultivating trees in July and allow them to ripen.

#### MULCHING.

Where you cannot cultivate, mulch thoroughly; put it on thick for three feet around the tree so as to keep the ground moist and cool, but do not let it touch the tree as it is liable to heat and burn the bark.

It has been found an excellent thing to mulch raspberries and blackberries with green **clover**; cut it when in full bloom and spread it on two to four inches thick and twelve to eighteen inches on each side of the row. This serves to keep the ground cool and is the cheapest fertilizer known.

#### PRUNING.

June is the best time to prune. In Minnesota do not prune much, and avoid cutting large limbs.

#### SUN SCALD.

We give the methods most in favor to prevent sun scald. First, lean the tree toward the south so that the rays of the sun at mid-day will not focus on the body of the tree. Second, wrap the body with burlap. Third, make a screen of lath woven together with wire and put around the body of the tree.

#### SPRAYING.

**Spray and get Perfect Fruit.**—Beyond a doubt, the codling moth, canker worm, apple and plum curculio, pear and quince leaf blight, grape rot and mildew, currant worm, potato blight or rot, etc., can be prevented or destroyed by spraying with the proper mixtures at the proper times, with the right kind of a pump. The mixtures are inexpensive and easily prepared. The ingredients can be got in any town, and any farmer or fruit grower can combine them. They cost little. The pumps are not nearly so high-priced as many suppose, and with ordinary care a pump will last for years. The operation of spraying is simple, inexpensive, and so effective that it cannot be too strongly urged. It is safe to say that it will **double** an income from an orchard. No fruit grower can afford to dispense with it. Worm-eaten apples need not and should not be longer offered in our market. If produced at all, let them be fed to stock.

**What to Use.**—The following will be found reliable formulas for preventing leaf blight and destructive insects which infest fruit trees, etc.:

**Apples.**—To destroy the codling moth, canker worm and apple curculio, use one pound of London Purple to 160 gallons of water. Spray the trees soon after the blossoms fall, when the apples are the size of a pea. The second application should be made a week or ten days after the time of the first, and the third application should be made in a week or ten days from the time of the second spraying. The third application is made necessary when the first is followed by a heavy rain. In preparing the London Purple for use, mix thoroughly with sufficient water to a paste-like consistency; then stir into a pail of water and allow to stand over night. Strain this through a fine sieve or a coarse cloth into the distributing barrel or tank. A kerosene barrel is a convenient vessel for this purpose.

**Plums and Cherries.**—*Plum Curculio.*—Use one-fourth pound of London Purple to 50 gallons of water; spray soon after the petals have fallen and again ten days later. Three-fourths of the cherries liable to injury by plum curculio can be saved by spraying as above. Enough of the plum crop can be saved by the same treatment to insure a good yield. There is no danger to health from its use. Spraying is the cheapest and most practical method of preventing injuries by these insects.

**Currants, Raspberries, Strawberries and Gooseberries.**—Currant worms and the slugs and insects, which infest raspberry and gooseberry bushes and strawberry vines, may be destroyed by one ounce of powdered white hellebore mixed with two gallons of water.

**Peaches** should be treated very carefully. Use Paris Green instead of London Purple on this crop, seeing that it is kept constantly stirred; and do not make the mixture stronger than one ounce to 15 gallons of water. Spray late in the afternoon or on cloudy days rather than in the hot sunshine.

**To Prevent Potato Blight or Rot.**—Use Bordeaux Mixture, same as for grape rot,

with the exception of using more water. Dissolve six pounds of sulphate of copper in 32 gallons of water and slake four pounds of fresh lime in 12 gallons of water. When the last mixture has cooled, pour it slowly into the copper solution, taking care to mix the fluids thoroughly by constant stirring. When the vines are about ten to twelve inches high, spray and continue the operation every two weeks. By mixing with the Bordeaux Mixture a solution of Paris Green or London Purple, one pound to 200 gallons of the mixture, the fungus and potato bug may be doctored at one operation.

**Spraying Grape Vines.**—It has been demonstrated that the diseases of downy mildew, powdery mildew, black rot, and anthracose can be controlled by intelligent spraying.

Bordeaux Mixture is a sure preventative.

**Bordeaux Mixture (A).**—Dissolve sixteen pounds of sulphate of copper in twenty-two gallons of water; in another vessel slake thirty pounds of lime in six gallons of water. When the last mixture has cooled, pour it slowly into the copper solution, taking care to mix the fluids thoroughly by constant stirring.

It is well to have this compound prepared some days before it is required for use. It should be well stirred before applying.

A solution containing the ingredients in the following proportions has been recommended for general use.

**Bordeaux Mixture (B).**—Dissolve six pounds of copper in sixteen gallons of water, and slake four pounds of fresh lime in six gallons of water. When cool, mix the solutions as described above.

**Treatment.**—As a first step every precaution should be taken to remove as much of the infectious material as possible. With this object in view, the old leaves and rotten berries should be carefully collected in the fall or winter and burned or buried. Trimmings should also be burned, as they often harbor thousands of minute spores or reproductive bodies of the fungus. The Bordeaux Mixture has proven beyond a doubt to be the most reliable preventative for black rot. In all cases it must be remembered that these treatments are preventatives, and being such it is sheer folly to wait until the enemy appears before beginning to fight.

In the spring, after the vineyard has been pruned and put in order by the plow, but before vegetation starts, spray the vines thoroughly with the Bordeaux Mixture, formula (A). The object of this spraying is to destroy any spores of the fungus that may be hidden away in the crevices of the bark. About ten days before the flowers open, spray all the green parts of the vines with Bordeaux Mixture, formula (B), taking care to wet the foliage thoroughly. Spray again with the same preparation when the flowers are opening, repeating the operation every three weeks until the fruit begins to color. The necessity of beginning the treatment early cannot be too strongly urged. For applying these remedies, spraying pumps with specially constructed nozzles are necessary.

*To destroy woolly and apple aphid and bark lice, suctorial or sap-sucking species of insects, including chinch bugs, squash bugs, plant lice, leaf hoppers, aphid and bark lice,* use the Kerosene Emulsion.

**Kerosene Emulsion** is one of the most useful of the insecticides, and may be easily prepared as follows: Dissolve one-half pound of hard soap (best whale oil soap) in four pints of water by boiling. When the soap is all dissolved, remove from the fire and add eight pints of kerosene and agitate the whole briskly until a permanent mixture is obtained. This is best done by using a force pump and pumping the mixture with force back into the vessel that contains it. The Emulsion may be diluted to the desired strength and used at once, or it may be allowed to stand and be used from when needed. The strength ordinarily used is prepared by diluting one part of the Emulsion in ten or twelve parts of water, which makes the kerosene about one-twentieth part of the whole.

#### PROTECTION FROM BIRDS.

The best way to protect cherry trees, grapes, and raspberries from birds is to cover them with bird netting which is made for this purpose from strong linen twine soaked in tanning liquid. It is durable, and may be obtained of George Robinson, Rye, Sussex Co., England. Mosquito netting can also be used.

#### PICKING AND MARKETING.

Pick fruit carefully without bruising, when it is dry; throw away the worthless fruit and make two grades of the rest. Save enough of the best to give your family all they want three times a day, and sell the rest.

**KEEPING.**

Fruit will keep best in a **cool, dry room**. Apples should be barreled up tight.

A rule to find the number of plants required for an acre.—The number of square feet in an acre is 43,560. Divide this amount by the number of square feet required for each plant. Thus to find how many currants are required for an acre planted 4 feet by 6 feet: 6 times 4 equals 24; 43,560 divided by 24 equals 1,815—a proper distance to plant.

In Minnesota fruit trees do not grow to be as large as in the Southern or Eastern states, and experience shows that it is better to plant them near to each other and then thin them out when they are too thick. We have adopted the distances here given, but in southern locations it will be best to set farther apart.

Apples, plums, cherries, pears and peaches, 16 by 16 feet .....	170	Black raspberries, 3 by 6 feet.....	2,420
Strawberries, 1 by 4 feet.....	10,890	Blackberries, 4 by 6 feet.....	1,815
Grapes, 8 by 8 feet .....	680	Dewberry, 3 by 6 feet.....	2,420
Gooseberries, 4 by 6 feet.....	1,815	Juneberry, 4 by 6 feet.....	1,815
Currants, 4 by 6 feet.....	1,815	Rhubarb, 3 by 6 feet.....	2,420
Red raspberries, 3 by 6 feet.....	2,420	Asparagus, 2 by 2 feet.....	10,890

**CHOICE APPLES.**

The following is a list of the most desirable varieties. Send for our price list.

**SUMMER APPLES.**

**Duchess of Oldenburg** (Russian).—Tree, a moderate grower, upright in habit, bark dark in color and very smooth, fruit extra size, pale green, shading to white, beautifully striped with pink, tender, juicy, tart, highly esteemed for market or domestic use; an immense bearer. This tree is the standard apple for hardiness and is more universally doing well throughout the Northwest than any of the old varieties. August and September.

**Tetofski** (Russian).—A moderate but handsome grower, extra hardy; medium size, very pale green, faintly striped with pink, oblong and very firm, quality good. August.

**Charlamoff** (Russian).—A good tree bearing large, oblong fruit, streaked with carmine red. It is pronounced a fruit of excellent quality. September.

**Blushed Calville** (Russian).—Hardy, not liable to blight; fruit large, handsomely blushed, fine quality. August.

**Breskovka, 152 M** (Russian).—Medium to large, a golden yellow. A very good dessert. September.

**Yellow Transparent** (Russian).—Productive, medium sized, pale yellow, excellent quality. Tree bears very young. August.

**FALL APPLES.**

**Fameuse**.—An old and well known variety, succeeds in favorable locations. Fruit medium, tender, sub-acid, melting, delicious; one of the best dessert apples. November.

**Haas**.—A vigorous grower, fruit medium to large, shaded and striped with red, tender, juicy, sub-acid, good. October to December.

**Borovinka** (Russian).—Much like Duchess in form, size and color. It is finer in flesh, less acid and much better eating. An early and full bearer, and tree a true iron clad. October.

**WINTER APPLES.**

**Wealthy**.—A seedling originated by Peter M. Gideon at Lake Minnetonka, Minn. A fine nursery tree, very hardy, an early and abundant bearer; fruit large, dark crimson in color, flesh,



crisp, sub-acid, white, tinged with red, quality second to none. This tree is deservedly making a first-class record wherever planted. November to February.

**Walbridge.**—Tree vigorous, handsome and productive; fruit medium size, striped with red, quality good. March.

**Utter's Large Red.**—Large and handsome, very uniform in size; a profuse bearer, quality good. December and January.

**Tolman's Sweet.**—Medium, pale yellow, slightly tinged with red, firm, rich and very sweet. The most valuable baking apple; vigorous and productive. November to April.

**Golden Russet.**—An old favorite variety, well adapted to good locations, russet, crisp, juicy, mild, sub-acid. March and April.

**Pewaukee.**—Originated by G. P. Pepper, Pewaukee, Wis. Seedling from Duchess; fruit medium to large, surface bright yellow, partially covered with dark red, flesh yellowish white, juicy, sub-acid, with a rich aromatic flavor; a strong grower, hardy. December to March.

**Wolf River.**—A new and beautiful fruit of the very largest size. Originated near Wolf River, Wis., and may well be classed among the iron-clads. Skin a greenish yellow shaded with crimson, flesh white, juicy, tender, with a peculiarly pleasant, mild, sub-acid flavor. Tree a strong grower and a great bearer. January and February.

**McMahon's White.**—Originated in Richland Co., Wis. Fruit very large, nearly white, a good culinary and dessert apple; has proven nearly as hardy and productive as the Duchess. December.

**Northwestern Greening.**—Originated in the town of Iola, Waupaca Co., Wis. Fruit pale green, sometimes tinted with a little red; sub-acid and of excellent quality. March and April.

**Malinda.**—Greenish yellow with dull, even red on one side; skin is quite firm; flesh white, juicy, fine grain, good flavor, sub-acid; good eating. February and March.

**Patten's Greening.**—The originator thus describes this apple: "A seedling of the Oldenburg seed grown near Portage, Wisconsin, and planted by us in the fall of 1869. Has borne ten years, and in 1888, after all the trying winters, bore fully five bushels; stands on trying ground but made a fine growth; limbs strongly shouldered, and fully as hardy in orchard as Duchess. Fruit medium to large, uniform size; color light to dark green, sometimes shaded with red; flesh white, good eating and a superb cooking apple." January.

**Avista.**—Origin, West Salem, Wis. Of good size; greenish yellow, striped and splashed with dull red; flesh creamy yellow, sub-acid, good flavor. March.

**Newell's Winter.**—Baraboo, Wisconsin. A fine, large apple, sub-acid. March.

**Scott's Winter.**—A Vermont seedling; profuse bearer; fruit medium size, thickly striped with bright red. Quality most excellent.

**Gideon.**—One of the hardy Minnesota sorts. A good, rather upright grower; fruit medium to large, color yellow with a vermilion blush on sunny side, mild acid; quality very good.

**Longfield** (Russian).—A free, upright grower; early and abundant bearer; fruit medium to large, yellowish green, thickly covered with red stripes, a decided blush on the sunny side; rich, sprightly, sub-acid. December to March.

**Ostrekoff's Glass** (Russian).—A small, dark green apple with dull red side; hardy; a good dessert apple; vigorous grower.

**Good Peasant** (Russian).—In tree and fruit this resembles the Longfield. A regular bearer, waxy white with a bright blush on sunny side. A good dessert apple. February and March.

**Hibernal** (Russian).—A thrifty grower and a good bearer of large, even sized, showy apples, striped with red handsomely colored; sub-acid, good for cooking and eating. December.

**Ska anka Bogdanoff** (Russian).—An iron-clad tree and an early and continuous bearer; fruit medium in size, yellow, conical; quality better than Baldwin. February.

**Volga Cross** (Russian).—A fine growing tree, very hardy; fruit is about the size of Rhode Island Greening. Quality much better than Baldwin. March.

**Regel, No. 169** (Russian).—This is a fine colored apple; yellow ground with colored splashes and broken stripes. It is large and of excellent quality. In flavor it is much like Rawle's Janet. March.

**Christmas Apple** (Russian).—Tree is perfectly hardy; apple about the size of the Minnesota. The color is a very nice red on the sunny side; flesh snow white with occasional red streaks, fine grain, sub-acid; good dessert apple. January.

## HYBRID APPLES.

These are quite profitable for market, coming into bearing early. Some of the varieties are not only good for culinary purposes, but are especially desirable for table use.

There are several points to which we wish to call attention and on which we base our recommendation of these hardy fruits. They can be planted on any kind of soil, and in the most exposed situations with perfect safety. They will stand the severity of the changes of the coldest weather. They will come into bearing very early, often in the second year from planting, and bear every year. They are very productive, giving large crops of beautiful fruit. Some of them are pre-eminently dessert fruits, being of superior quality and strikingly handsome. They can be dried, cooked, canned or preserved with the skin on, saving a great amount of trouble. The size of the fruit varies from one and one-half to two and one-half inches in diameter, being large enough to quarter and core for drying, etc.

The following are the most valuable varieties:

Their origin is supposed to have been from seeds of the Siberian Crab fertilized by standard sorts. They possess the merits of extreme hardiness, superior quality of fruit, and of fair size considering their ancestry.

**Early Strawberry.**—Tree a good grower, symmetrical, hardy, fruit size of Transcendent, red striped, crisp, juicy; excellent for eating. Season August.

**Whitney.**—One of the best growers, straight, symmetrical, abundantly supplied with fibrous roots. Fair specimens of the fruit measure seven and three-fourths inches; a delicious eating apple, color bright carmine, very showy; flesh firm, juicy and rich. Said to be of superior value for drying and canning; probably the best of the Hybrids. September.

**Orange.**—Crisp, juicy and pleasant; a deep orange in color; a slow grower as a nursery tree; quality number one. October.

**Minnesota.**—Hardy, a medium grower; fruit larger than Golden Russet, light color with blush on sunny side; quality excellent. In size, beauty and keeping qualities the best of the winter varieties. January and February.

**Dartt.**—A seedling Hybrid, introduced by Prof. E. H. S. Dartt, superintendent of the Experimental Fruit Farm, Owatonna, Minn., and named by him. The tree is a fine grower, very hardy, quality of fruit good, size that of a Transcendent; a deep-crimson when ripe. January.

**Hyslop.**—An old and popular Crab, a good grower and very hardy; fruit larger than Transcendent, deep crimson in color, flesh white tinged with red, an abundant bearer and a good keeper. January.

**Gibb Crab.**—Originated by G. P. Peffer, Pewaukee, Wis. Fruit color of the orange, quality said to be of the very best, and for eating out of hand fully as good as the best peach; a valuable acquisition.

**Transcendent.**—The well known and superior hardiness of this tree has by common consent made it the standard for hardiness; a vigorous and rapid grower, bears abundantly and the fruit is highly esteemed for jelly, preserves, etc. Its only fault is a tendency to blight. Should be planted away from general orchard.

**Beach's Sweet.**—The tree is a strong grower and an abundant bearer; fruit large, measuring seven and one-half inches in circumference, a bright, rich carmine when ripened in the sun; unexcelled in quality and superior as an eating or baking apple to the Talman Sweet.

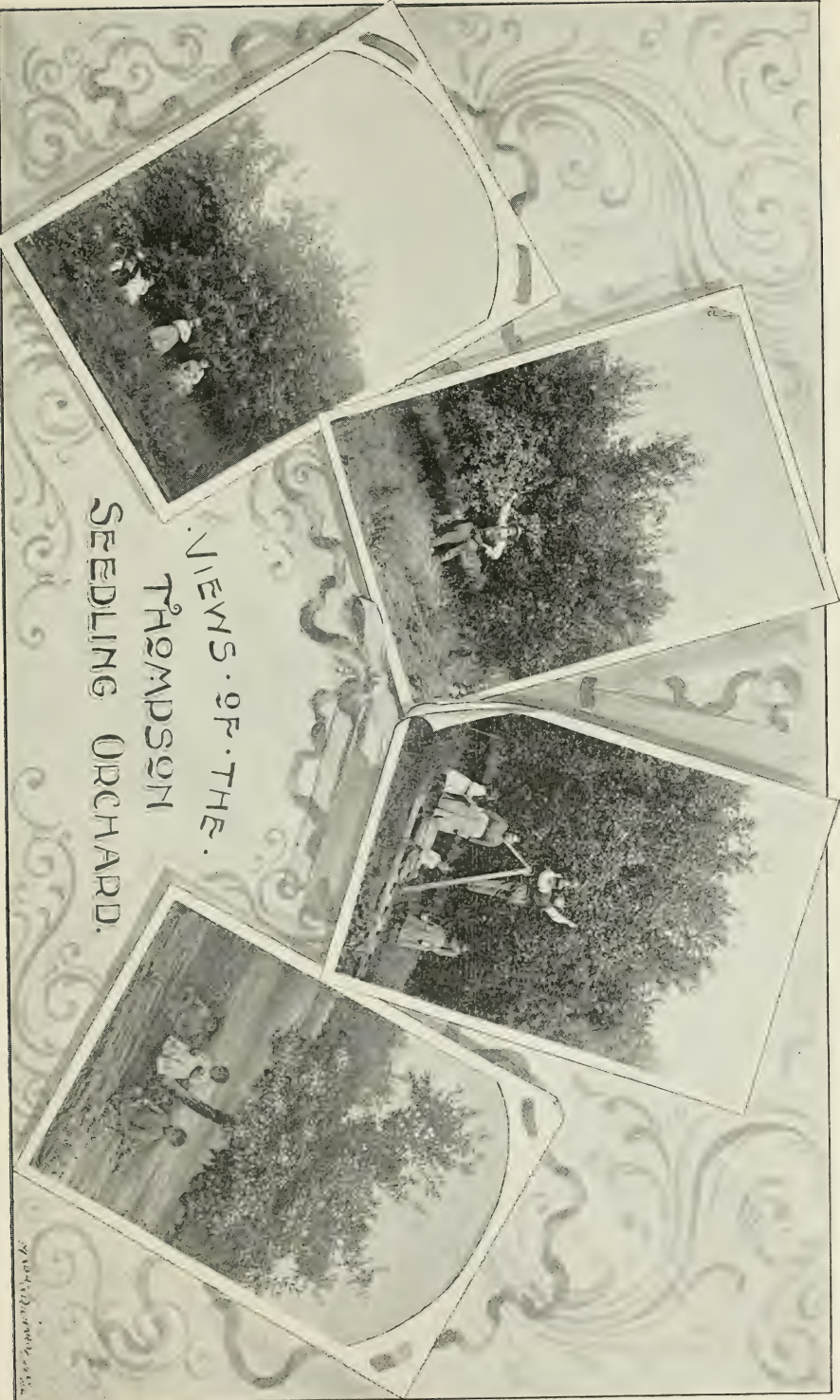
**Virginia.**—A fine grower and a desirable stock for top-working; in quality resembles the Transcendent but not so subject to blight.

**Martha.**—Gideon's new seedling, No. 5, from Minnesota. Immensely vigorous, hardy, producing every year. Mr. Gideon says, "For sauce it surpasses any apple we ever grew." A great acquisition. October.

**Lowe (Iowa).**—A vigorous grower, hardy, young and annual bearer; color green with blush; size and shape of Whitney; mild, sub-acid, crisp, juicy. January.

**Tonka.**—It is as hardy as the Siberian Crab, free from blight, will stand drouth and cold well. It is a tree for the extreme north or windy sections. The fruit is sub-acid, perfect in form, of a bright red or scarlet color. Fruits in great abundance. It has been growing and fruiting in Manitoba for years, far north of Minnesota or Dakota.

VIEWS OF THE  
THOMPSON  
SEEDLING ORCHARD.



W. H. & J. W. B. & Co.



The above are illustrations of a "Wilder Medal" awarded to us at the meeting of the American Pomological Society, at Washington, D. C., for a collection of beautiful Thompson's Seedling Apples. On page 11 of our catalogue you will find a history of these wonderful apples.

The following are extracts from letters, Horticultural Reports, &c., by prominent pomologists. They are only a few of the many good words of praise that have been bestowed upon them, but they indicate the high esteem in which the Thompson's Seedling Apples are held by those who know their many excellent qualities.

**EXTRACTS FROM THE ORIGINAL LETTERS.**

OFFICE OF THE POMOLOGIST,

U. S. DEPARTMENT OF AGRICULTURE, Washington, D. C.

"I am both delighted and surprised at seeing these specimens from your part of the country. I did not suppose that so far north in Iowa there could be produced so many seedling varieties of such good character. As everyone well knows, the great difficulty is to find trees that will stand the severe winters, and this you seem to have done; at least for the past twenty-five years. \* \* \* The great object now is to get varieties which are hardy in tree, which bear fruit of good quality that will keep late in the winter. I have great hopes that among your seedlings there are several such, and I wish to give them the very widest notoriety, and hope that you will give me any points of interest about them.

H. E. VAN DEMAN,  
United States Pomologist.

**Report of Prof. J. L. Budd, to the Iowa State Horticultural Society.**

"Taken as a lot, they are the most remarkable lot of seedling apples ever grown in one orchard that I have ever seen, with possibly one exception. \* \* \*

"Every horticulturist in the state will agree that they are safer trees to plant than the specialties offered by the eastern nurserymen."

J. C. FERRIS.

**Premium Awarded at the Iowa State Horticultural Meeting.**

"Best plate, 6 specimens, from Northern district, three dollars, to J. S. B. Thompson, Grundy Center, Iowa."

R. P. SPEER, Judge.

**Award by the Iowa State Report of Committee on Seedlings.**

"Your committee appointed to examine the entries of seedling apples and award premiums thereon have performed that duty and award the **first premium** for the best collection of seedling apples grown by the exhibitor, to J. S. B. Thompson."

"For the best seedling apples grown at the north, to J. S. B. Thompson."

**Award by the Iowa State Horticultural Society.**

"Best collection apples, not less than fifteen varieties, ten dollars; best two varieties summer apples, two dollars; best three varieties fall apples, two dollars; best five varieties winter apples, two dollars; J. S. B. Thompson, Grundy Center, Iowa."

J. C. FERRIS, Judge.

## SPECIALTIES.

Appreciating the fact that we must depend upon our native resources for the best flavored, the hardiest and most desirable fruit, it has been our constant aim to investigate and procure promising varieties, and having tested to our entire satisfaction the following apples, we procured, propagated and now offer trees of the Okabena and Thompson's Seedlings, under the following guarantee:

That each tree sent out, will bear as an evidence of its genuineness, a metal tag on which will be indelibly stamped the name of the tree and our registered trade mark. This tag will be so affixed that it will remain until the tree is in fruiting.

**THE OKABENA** originated on the banks of Lake Okabena, near Worthington, Nobles Co., Minn. A seedling of the Duchess fertilized by the Wealthy from seed furnished by Peter M. Gideon in 1871. The parent tree is perfectly sound and thrifty and is an annual and enormous bearer. The tree is the finest grower in the nursery we have ever seen; straight, symmetrical and finely rooted. The bark is a deep, rich wine color, not subject to sun scald or blight. Grows equally well from grafts or buds, and is an **iron-clad in the fullest sense of the term**. The fruit is medium size, slightly flat, highly colored when exposed to the sun, and it invariably has a solid band of crimson extending from stem to blossom end; this varies in width from a sixteenth to a quarter of an inch, and is as infallible a mark of the Okabena, as the hair line is of the Tallman Sweet. The fruit combines the good qualities of both the Duchess and Wealthy; fine grained, choice flavored, and a good keeping apple. Season December.

For full account of Seedling Commission see reports of Minn. State Horticultural Society, year of 1887, page 136.

See illustration on back of cover.

**THOMPSON'S SEEDLING APPLES.**—Our attention was called to this remarkable orchard, located in Grundy Co., Iowa, in 1884, and in 1885 we consummated the purchase and obtained absolute right to propagate and sell trees from this wonderful orchard.

The amateur student of horticulture can find much of interest in investigating the workings of nature in this case. The history is as follows:

J. S. B. Thompson and wife Phoebe were residents of New York State. They came to the young state of Iowa in 1859, and located on the farm where this **orchard** now stands. In 1861, obedient to the call of his country, Mr. Thompson went to the front, remaining there until the close of the war. In the fall of 1861 Mrs. Thompson returned to New York to visit the old homestead, and while there, with native thrift, endeavored to temporarily supply the lack of fruit in the new Western home by drying a supply of apples. Her father owned a famous seedling orchard, and made it a practice daily to cull the choicest specimens for her use, and suggested to his daughter that the seeds be saved and planted in Iowa upon her return; this was done the following spring, and they started fairly well, and from a pint of seeds about four hundred trees grew and remained in the nursery row fighting for life with the weeds, the ravages of the cattle, and the unfavorable conditions of the crowded nursery row. In 1866 about three hundred were transplanted to the orchard site where they now stand, many of them being now fifteen inches in diameter, their tops twenty to forty feet in height. Fully half of the original planting still stands, in spite of the unfavorable location. The soil is black prairie, sloping to the south and east, and hemmed in to the east, north and west by dense groves of willow and maple, the southern line of the orchard being a quaking bog. In proof of the trying nature of the location, and the superior hardiness of the seedling, we will state that nearly every known so-called iron-clad apple and crab has been set in the same orchard and all are dead or are living wrecks, while on the contrary many of the seedlings are perfect in wood, bark and growth. There are among them wonderful developments in size, color, quality and season.

Mr. Thompson has exhibited specimens of these new seedling apples at many county fairs, at the state fairs of Iowa and Minnesota, also at the annual state and district horticultural meetings held in Iowa and Minnesota. He has been universally successful in being awarded premiums, and their superior excellence of flavor and superb keeping qualities have attracted general attention wherever shown.

In 1891 we exhibited them at the meeting of the American Pomological Society held in Washington, and they were awarded a Wilder bronze medal, a cut of which is here given.

We claim superior merit, from the derivation of the trees; being **seedlings** from **seedlings** and by far the strongest and most vigorous nursery growers we have ever propagated.

Interested purchasers are requested to address Hon. J. S. B. Thompson, Grundy Center, Iowa, for more complete information.

We believe firmly that the above specialties offer the solution to the question, "What shall we set in orchards in the northern fruit belt?"

We have placed them on trial in various experimental stations, and have tested them under most trying circumstances, and now offer the following varieties, which are satisfactory, and embrace a fine collection of early and late, sweet and sour:

**Maple.**—Handsome tree, healthy and a good bearer. Fruit medium and rather flat; delicious sweet; color yellow, August.

**Bremer.**—Fruit oblong, yellowish green with red splash; juicy and sub-acid. A good eating apple. August.

**Grundy.**—Tree large and spreading. An abundant and annual bearer; fruit large and oblong; flesh tender and juicy, sub-acid. An excellent dessert apple. September and October.

**Hardin.**—An abundant bearer; fruit large and flat, green, to which the sun gives a slight reddish tinge; sub-acid. November.

**Soo.**—A good grower and prolific bearer; fruit large, green tinged with red; sub-acid. December.

**Humboldt.**—A good grower; fruit about the size of the Fameuse; fine quality, sub-acid. February.

**Judson.**—A fine open and vigorous grower. Fruit large, oblong; green ground with a heavy red splash; flesh firm, sub-acid; an annual and prolific bearer. March.

**Tama.**—A low, open and good grower; fruit medium size; flesh firm and crisp; sweet. Season March.

**Phœbe.**—An open and spreading grower; fruit large, green streaked with red; flesh crisp and juicy; tart. Good keeper.

**Thompson.**—An upright grower; fruit medium to large; green ground and with red splash; mild sub-acid; flesh crisp and juicy. Last of March.

## PLUMS.

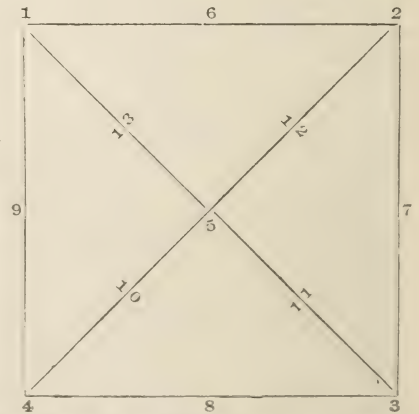
In the wild state plums that produce fine fruit abundantly are found in groups or clumps. Single trees removed from such groups have been found to be unfruitful, until fertilized by neighboring trees. For this reason we advise to plant in groups or clusters. To form a group of trees mark out a plat of ground forty feet square according to this diagram and set a tree at each number, thus bringing the trees in close proximity to each other. The pollen will be conveyed from tree to tree and fertilization ensue.

Another important item is to set **different varieties** near each other so that those kinds that have **imperfect blossoms** may become **fertilized** by the **pollen** from trees with **perfect blossoms**.

**Forest Garden.**—Hardy, bears profusely, ripens from the first to the twenty-fifth of August, one of the earliest plums; large, being one to one and one-half inches in diameter, oblong; color mottled red and yellow; skin thin; juicy, sweet and rich.

**De Soto.**—Perfectly hardy, a splendid bearer; fruit very large, one and one-half to one and three-fourths inches in diameter; meat sweet, firm and juicy; ripens about September first; dappled red and yellow.

**Weaver.**—The tree is very hardy under all circumstances, and is wonderfully prolific, and an **early bearer**; the fruit large, oblong, of a beautiful color and exquisite quality; flesh firm, a free



stone and a good keeper. As a canning plum or to be peeled and eaten with sugar and cream, fully equal to the best peach.

**Pottawattamie.**—The Pottawattamie is supposed to be a cross between the Chickasaw plum and the Swedish sloe, but is very distinct and different from all varieties of plums. Its origin is not definitely known, but the parent tree sprang from a Miner plum orchard. An immense, early, annual bearer. The color is a yellow ground overspread with a bright pink and prominent white dots which give it a transparent hue.

**Hawkeye.**—Very hardy and thrifty, a strong grower, unusually heavy foliage, an annual and abundant bearer; fruit is not troubled with curculio, large; light mottled red color, attractive and of superior quality, both for eating out of hand and cooking, for canning is unexcelled. The flesh is very firm, bears shipping well and will be the standard plum for marketing and home use.

**Wolf.**—Nearly as large as Lombard, and a perfect free stone; superior for cooking and serving with sugar as peaches are used. Tree a good grower, very hardy, and is becoming popular wherever known. Ripens in August.

**Forest Rose.**—Tree hardy, bears early; fruit large, round, dark red, stone small, excellent. Prof. Budd says, "The Forest Rose is one of the hardiest in tree and fruit-bud, and the best in quality."

**Marianna.**—An accidental seedling originating in Texas. Unusually strong, rapid grower. Fruit larger than the Wild Goose, round and of a peculiar light red color. Its productiveness is marvelous; one of the best of the Chickasaw varieties. August.

**Miner** (Townsend). An improved variety of the Chickasaw, originated in Lancaster, Pa. Medium size, oblong, pointed at apex. Skin dark purplish red, slightly mottled with fine bloom. Flesh soft, juicy, vinous and adheres to the stone. Excellent for canning and cooking, and esteemed for market in the West. Productive.

**Wild Goose.**—Large, rich, crimson, beautiful; flesh soft, rich, melting, delicious, with a full fruity flavor; tree a strong grower, prolific; a great many spurious kinds are being sold for Wild Goose, but the true sort is a large plum and ripens early in July. Succeeds best on light land.

**Rollingstone.**—A heavy and continuous bearer when the tree attains some size and age. Fruit round, firm fleshed and valuable for dessert use.

**Cheney.**—Fruit averages quite large, flesh firm, free from astringency and valuable for market or dessert use.

**Robinson.**—(An Indiana seedling). Free, hardy and vigorous; young and prolific bearer, fruit nearly round; color a pretty marked red on a yellowish ground; very fine and sweet. For cooking one of the best, being almost free from astringency.

**Winnebago.**—Fruit above medium in size, orange scarlet, excellent for culinary purposes.

**Arctic** (Moore's).—Origin near Ashland, Maine, in the coldest regions of the United States, hence its name. This valuable and hardy plum is now attracting the attention of horticulturists to a very large extent. Where it originated it bears large crops annually; it is of medium to large size, handsome in appearance, carries well to distant markets; color deep blue with a fine heavy bloom; foliage healthy and never blights or sun scalds, and is nearly curculio proof. September and October.

**Lombard.**—Medium, delicate violet red, paler in the shade, thin bloom; flavor pleasant but not rich. Tree very vigorous, hardy, very productive and popular as a market sort. Last of August.

**Shipper's Pride.**—Origin State of New York, near Lake Ontario, and in that section has stood the coldest winters without injury, and bearing large and full crops annually. The tree is a very thrifty grower. The fruit is large, and it is not uncommon to fruit specimens measuring two inches in diameter each way, as it is nearly round. Color dark purple; very handsome; excellent for canning, and as its name indicates is a good variety to ship to distant market in good order. Season first to middle of September.

**Prunus Simon!** (Apricot Plum).—Fruit of a brick-red color, flat with deep cavity at each extremity; flesh a fine Apricot yellow, firm, and has a peculiar aromatic flavor not found in other varieties.

**German Prune.**—Medium, oval, purple or blue; juicy, rich, fine. Tree vigorous and very productive. September.

**Imperial Gage.**—Rather large, oval, greenish; flesh juicy, rich and delicious; parts from the stone. Tree a vigorous grower; very productive and one of the best of plums. Middle of August.

## APRICOTS.

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Plant fifteen feet apart each way. There is no fruit more delicious or beautiful than the Apricot. The hardiest of all the Apricots, the Russian, has stood 30 degrees below zero without injury, while the Moorpark and Breda were frozen to the ground, and it is free from all disease, worms and insects that have been so destructive to trees and fruit of the peach and plum. We have seen a great many of these trees growing in the Mennonite settlements of Nebraska, and have the first tree to see that was not perfectly healthy, vigorous and symmetrical. Fruit medium size and of the best quality, and brings the highest price in the market.

Its habit of growth is dwarf in nature, and is easily protected. The quality of the fruit is so fine that it is well worth the trial and trouble of amateurs to experiment with it.

### IMPROVED RUSSIAN VARIETIES.

**Alexander.**—Large size, oblong, yellow flecked with red; flavor sweet and delicate; one of the best. Season July 1st.

**Alexis.**—Large to very large; yellow with red cheek; slightly acid; rich and luscious. Season July 15th.

**Catharine.**—Medium size, yellow, mild, sub-acid, good. Season July 25th.

**Gibb.**—Medium size, yellow, sub-acid, rich, juicy. Season June 20th. The best early sort, ripening with the Strawberry.

**J. L. Budd.**—Large size, white with red cheek; sweet, juicy, extra fine. Season August 1st. The best late variety.

**Nicholas.**—Medium to large, white, sweet, melting. Season July 10th.

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## CHERRIES.

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**Early Richmond.**—An early red, acid cherry, very valuable for cooking early in the season. Ripens through June. Tree a free grower, hardy, healthy and very productive. One of the best.

**Morello English.**—Large; dark red, nearly black; tender, juicy, acid, rich. Tree dwarf and slender. Makes a fine tree on the Mahaleb. If trained on a north wall it may be in use all the month of August. Valuable.

**Olivet.**—Large; very shining, deep red; tender, rich and vinous with a very sweet sub-acidulous flavor; promising.

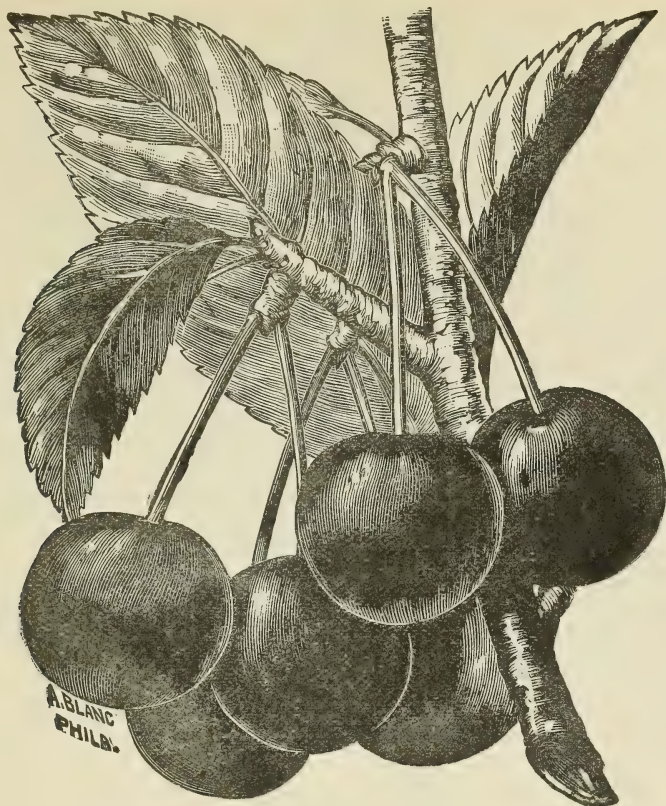
**Montmorency.**—No doubt one of the finest acid cherries; tree very hardy and an immense bearer, commences to fruit while young and is loaded annually thereafter with fine crops; fruit of good size, fine flavor, and of bright, clear, shining red; valuable everywhere, especially for northern latitudes; about a week later than Early Richmond.

**Luelling.**—A new variety from Portland, Oregon, said to be the largest cherry known; of very dark color and finest quality; flesh solid and firm and adapted to long transportation. Free. Middle of June.

**Ostheim or Russian Cherry.**—A hardy cherry imported from the nurseries of Dr. Regel, of St. Petersburg, Russia. It has been tested in the severest winters of Minnesota and found to be perfectly hardy. Charles Downing thus describes it: "Fruit large, roundish, obovate; flesh liver color, tender, juicy, almost sweet, sub-acid, very good. Season middle of July." Morello class.

**Late Kentish.**—Fruit medium, round, deep red when ripe; very juicy, highly acid. One of the best for culinary purposes. Free. June.





**Black Tartarian.**—Very large; purplish black; half tender, flavor mild and pleasant. Tree a remarkably vigorous, erect and beautiful grower and an immense bearer. Ripe last of June and beginning of July. One of the most popular varieties in all parts of the county.

**Early York** (Serrate).—Fruit medium size; skin very thin, thickly dotted in the shade, but a dark red in the sun; flesh greenish white, remarkably tender, and melting, rich and sprightly, juicy; free stone.

**Sand Cherry.**—It is growing in popularity. For cooking purposes it is equal to the Early Richmond.

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## PEARS.

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**Flemish Beauty.**—Large, beautiful, juicy, melting, rich and fine; good bearer; hardy everywhere. September and October.

**Bartlett.**—Large size with often a beautiful blush next the sun; buttery, very juicy and highly flavored; bears early and abundantly; very popular. August and September.

**Kieffer's Hybrid.**—Raised from seed of the Chinese Sand Pear, accidently'crossed with the Bartlett or some other kind grown near it. Tree has large, dark green glossy leaves, and is of itself very ornamental; it is an early and very prolific bearer. The fruit is of good quality, wonderfully showy for the table and market. It never rots at the core, and is as nearly blight proof as is possible for any pear to be. October and November.

**Vermont Beauty.**—A beautiful new seedling pear that originated in Northern Vermont.

Fruit of medium size; flesh melting, sprightly, and of the best quality; tree healthy, hardy and very productive. October.

**Clapp's Favorite.**—Very large; yellowish green, full yellow when ripe, marbled with dull red in the sun, covered with small dots, juicy, melting and fine, and abundant bearer. Season September.

**Bessemianka.**—A famous seedling pear from Russia imported by Prof. Budd. Fruit medium in size, bergamotte shaped, green with some russet and often blushed on sunny side. Flesh tender, juicy, seedless. The tree is an upright grower, dark green leaves, free from rust or mildew.

**Sapieganka.**—A fine nursery tree adapted to the latitude of the southern half of Iowa.

**Idaho Pear.**—A choice seedling originated at Lewiston, Idaho. In size, general appearance and aroma it resembles the crosses of the Chinese Sand Pear, but its eating quality is far superior to that of any of this class known in cultivation. It is very large and handsome, irregular, globular, somewhat depressed. The cavity of the fruit is very irregular, basin shallow and pointed calyx very small and closed, core very small, skin golden yellow with many russet spots. Flesh melting juicy with a sprightly vinous, delicious flavor. Season September and October. So far it has not fruited outside of its native locality but there it has withstood a temperature of thirty degrees below zero.

**Wilder Early.**—A new and valuable seedling pear; a very strong grower; fruit small to medium, bell-shaped, irregular, surface smooth; pale yellow ground with deep shading of brownish carmine; stem short, core very small, seeds small; flesh very pale whitish yellow, fine grained, tender, flavor sub-acid, sprightly, quality very good. Season August.

**Fitzwater Pear.**—A beautiful canary or golden yellow of medium size (just right for dessert), slightly flushed on one cheek with a few freckles distributed evenly over the surface, mostly at the calyx; flesh juicy and melting to the core; flavor better than Bartlett, small core and seeds. Ripens November to January.

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## PEACHES.

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It has not been thought possible to grow peaches in Minnesota, but our venerable and progressive friend, Peter M. Gideon, of Excelsior, has demonstrated that it can be done successfully, and now there are a number of planters in the state who are following his example. A good many peaches were raised last year and some fine specimens were put up for the World's Fair.

**How to Grow Them.**—We quote from the characteristic pen of Mr. Gideon:

### PEACH CULTURE IN MINNESOTA.

"Perhaps it would be of interest to many of your readers to learn how my peach orchard came through the last winter—the fourth winter under cover. Small, one-year-old trees when set are now very large for their age, though laid down every winter. The prospect of a large crop per tree is good, the trees are in fine condition and full of bloom, almost open, and if late frosts don't interfere will load to their utmost capacity to bear.

The fact is demonstrated that peach culture is a success in Minnesota. \* \* \* \*

Just what my process of peach culture is has been published in various journals, but as this may reach thousands who have not seen the account I will here rehearse. I prefer small, one-year-old trees with whole roots. Dig the hole the proper size and depth, a little deeper than for ordinary planting, then make a cone of solid earth across the middle of the hole in line with the row, or in the direction the tree is to be laid down, then divide the roots into two equal parts or as near as can be, each division as compact as possible, and saddle them over the cone of the dirt, then fill up and pack the dirt as in other planting. And in the fall when you wish to lay them down dig on the side to which you want the tree to turn and it will lop over as if on a hinge. A little hay or leaves under to keep the small branches off the naked ground, fill in the dirt around the roots, over

which put leaves or some other litter, and over that litter and the entire tree put about six inches of hay or its equivalent in straw or corn stalks. And in the spring remove the covering and the dirt, lift the tree and replace the dirt around the roots. And to avoid mice I use strychnine bait under cover of the tree. To keep the bait dry I use two pieces of boards, one on top of the other, on that I put about a spoonful of dry corn meal, and over it dust the strychnine made fine as dust, and over all put two boards nailed edges together to form a roof, and the trees are safe."—Peter M-Gideon, Excelsior, Minnesota.

**Alberta.**—A seedling of Chinese cling, but entirely free. Large; yellow with red cheek; juicy and of high quality, flesh yellow and melting. A very valuable sort. September.

**Amsden.**—Ripens three weeks before the Hale's Early. Fruit rather larger than Hale's Early, roundish, a little flattened with a slight suture. Color red, beautifully shaded and mottled with a very dark red, nearly covering the greenish white ground. Flesh white with a delicious flavor. Middle to end of June.

**Crawford's Early** (Early Melocoton).—Very large; yellow with red cheek, handsome; flesh yellow, excellent quality; vigorous and productive. Popular. Middle of August.

**Crawford's Late.**—Of the largest size; skin yellow with red cheek; tree vigorous and productive; one of the finest and best, well liked everywhere. Last of September.

**Crosbey.**—Bright yellow, medium size, fine quality, free stone with small pit, and enormous bearer, and fruits every year because its fruit buds are more hardy than most other varieties; it is almost an iron-clad, for it fruits when all others fail. If you want to be sure of peaches every year plant **Crosbey**.

**Heath Cling.**—Extra large; flesh clear white; blushed cheek; valuable for canning, October.

**Keypot White.**—Large, pure white and white at the stone. Hardy, a strong grower and very prolific. More free from mildew and cracking than most white, free-stone sorts, and one of the best and most reliable of this class.

**Mountain Rose.**—Large, red, flesh white, juicy, rich and excellent; one of the best early peaches, ripening with the Troth's Early, and much larger and finer than that variety. Should be in every collection.

**Old Mixon Free.**—Uniformly large; white covered with bright red; one of the best and most reliable. Last of August.

**Salway.**—Fruit large, roundish, deep yellow with a deep marbled brownish red cheek; flesh yellow, firm, juicy, rich and sugary. A new English variety; a late showy market sort. Free. Last of September.

**Wonderful.**—Of New Jersey origin; large, smooth, almost globular, with a faint suture and slightly pointed apex, very regular and uniform in both size and shape, even upon overloaded trees of the richest golden yellow, largely overspread with vivid carmine with marblings of crimson, beautiful in the extreme; flesh yellow, rich, highly flavored and delicious, exceedingly firm, parts from the stone perfectly and dry, and is bright red around the pit. Its season is late to very late ripening in central New Jersey the second week in October and keeping in good condition as long as three weeks after gathered. The tree is a strong, vigorous grower and a regular annual bearer, and so prolific as to require the limbs to be braced to sustain the weight of fruit.

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## STRAWBERRIES.

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In their season everyone in the family should have two dishes of strawberries for breakfast, a like amount for supper and a shortcake for dinner.

### SOIL, AND LOCATION.

Any well fertilized and well cultivated land will do. A northern exposure is thought to be a little less liable to injury by late frosts in the spring.

### DISTANCE TO PLANT.

In small gardens a good way is to plant them in hills eighteen inches apart. For field culture plant in rows four feet apart and one foot in the row.

### PREPARING PLANTS AND PLANTING.

Cut off the stems, leaving one or two of the smallest leaves, and cut off the roots, leaving about four inches. This should be done in the cellar or a shady, cool place. Have pail or box of rather thick mud, and mud the roots, placing them in a shallow box, tops out. If it is a dry, windy time set them in the cellar and wait until just before a rain for planting. See directions in front of catalogue.

### PISTILLATE VARIETIES.

In setting pistillate varieties be sure and set staminate varieties near them, either mixing them, or plant three rows of pistillate, then one of staminate. The staminate variety furnishes the pollen which fertilizes its own and the blossoms of the pistillate plant.

### CULTIVATION.

This should be done once a week for the hill culture. It must be done with a hoe. Keep all runners pinched off so as to get a strong, vigorous plant in each hill. In field culture use a small tooth shallow cultivator, and when the runners start, direct them so as to fill all vacancies and form a bed one foot each side of the row; this will leave a walk two feet wide. It is best to cultivate one way only so as not to double the runners back and break them.

### PROTECTION.

In the fall when the ground is first frozen, cover it with three inches of marsh hay or clean straw rye is best. In the spring rake the covering into the paths and around the plants to keep the heavy rains from washing dirt on to the fruit. Pull out all weeds that start.

### SUMMER CARE.

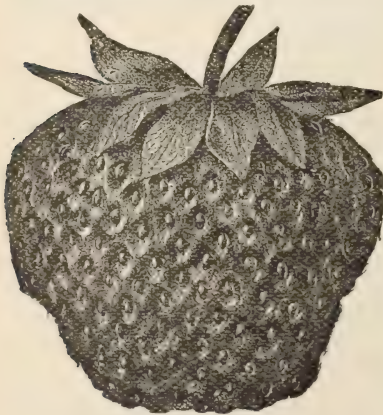
Immediately after fruiting mow off the tops of the plants, rake them and the straw off the beds and burn them, then with a sharp plow turn over the edges of each row, into the paths, leaving a strip of plants eight inches wide. Cultivate the ground and grow new plants as before for the next year's fruiting. Another way is to set a new bed and plow up the old one. It does not pay to keep an old and matted bed.

### STAMINATE VARIETIES.

**Wilson's Albany** (S).—An old and reliable variety, very abundant bearer. The most widely known and universally successful strawberry.

**Captain Jack** (S).—Plant vigorous and very productive. Berries roundish, scarlet. A valuable market berry, early; blossoming about the same time as the Warfield, it makes a good fertilizer for it.

**Sharpless** (S).—Very large, average specimen under good cultivation measuring one and one-half inches in diameter. Generally oblong, narrowing to the apex; irregular, often flattened; clear light red, with a smooth shining surface, firm, sweet with a delicious aroma; vigorous, hardy and very productive when raised in hills with the runners cut off. Perhaps the best farmers' berry for home consumption known to horticulturists.



SHARPLESS.

**Jessie** (S).—The best berry for either home or market ever introduced. It is faultless. The variety was originated from seed of the Sharpless, by F. W. Loudon, of Janesville, Wis. The plant is large, healthy, free from rust, a vigorous grower and wonderfully productive. Blossoms perfect, fruit very large, sometimes wedge-shaped, but never cox-combed or mis-shapen. Color bright red all over; in quality, one of the best.

**Gandy** (S).—Large and handsome, roundish conical; uniform in size and shape; bright scarlet, firm, fair quality; vigorous and productive; a good late variety.

**Parker Earle (S).**—A splendid new berry which originated in Texas, and named in honor of Mr. Parker Earle; uniformly large, regular, conical with a short neck; color glossy, scarlet crimson; ripens all over; flesh moderately firm, no hollow core, quality good; flowers perfect, always setting perfect fruit. Plant very vigorous, healthy and remarkably productive. It is said to have yielded at the rate of 15,000 quarts per acre. Its robust habit will, we think, render it capable of enduring extremes of heat and cold, and to thrive on a great variety of soils. This is one of the most promising varieties introduced recently and it seems destined to become popular over a wide area of country. In spite of the long continued drought which prevailed in this locality, it has done admirably on our grounds the last season, growing vigorously and producing a very heavy crop of good fruit. Season medium to late.



PARKER EARLE.

**Lovett's Early (S).**—Large, round, conical, uniform, seldom ill-shaped; bright crimson; quality good; season early, continuing good through the season.



MICHEL'S EARLY.

has a magnificent, perfect blossom and is a great bearer. The fruit is never cockscombed or misshapen, but the largest specimens are sometimes uneven on the surface. The color is a rich, brilliant red, and it ripens all over. The flesh is firm and rich and of superior flavor, being both sweet and rich. In appearance and quality it is a berry of decided character, and it would puzzle an expert to point out a fault in either plant or fruit.

**Beebe** (S).—Large, globular, good form, deep scarlet, fair quality. Plant vigorous with fine foliage; desirable as a home berry. Mid-season.

**Workman** (S).—Originated by S. S. Workman, Lake City, Minn. Strong grower; round; dark red; sweet. A valuable variety that this veteran gardener claims is the best of all.

**Louise** (S).—The berries are of regular conical shape with broad calyx; color bright glossy crimson, and size large. It is medium late with long season of bearing, and holds the large size of the berries throughout the season. It is very productive, good constitution, foliage healthy, worthy of trial.

**Van Deman** (S).—Early; a new variety; very firm and promising; is grown and shipped with the Warfield; about the same size and quality.

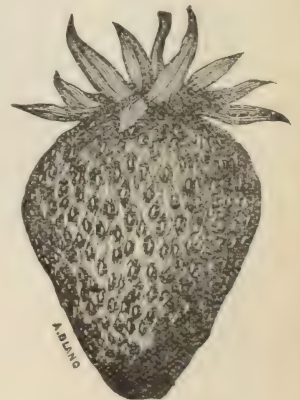
**E. P. Roe** (S).—A new late strawberry originated at Newburgh, New York. The only productive, large, good, late berry yet introduced, yielding nearly double the fruit of the old Kentucky and one-third larger, firm and of the very best quality; the plant is a strong, vigorous grower, with perfect flowers. First fruit picked on June 19th—the last July 19th. We are testing this variety.

### PISTILLATE VARIETIES.

**Warfield** (P).—A seedling discovered by B. C. Warfield, of Illinois, in 1883. It fruited in 1884, and a bed containing five square feet yielded a quart every second day. The blossom is pistillate. Plant a vigorous grower with long penetrating roots to resist drought. It blossoms and ripens with the Crescent, and has tall leaves that protect the blossoms from spring frosts. Single plants have produced one hundred and ninety-five blossoms and berries. It equals the Wilson as a shipper, and is superior to it in every other respect. We consider this as the coming market berry.

**Crescent Seedling** (P).—Large, conical, slightly depressed at the apex, bright scarlet, flesh moderately firm, quality one of the best. The plant is a vigorous grower and very productive. Ripens early. It is represented to be the most productive variety in the world; also that the berry averages about double the size of the Wilson throughout the season.

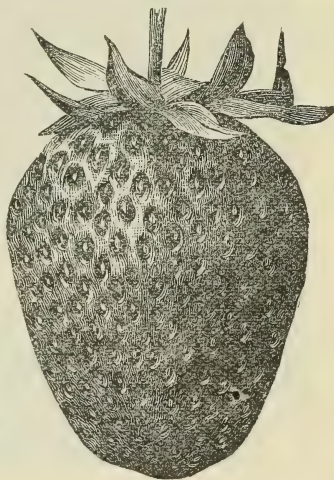
**Bubach (No. 5)** (P).—Fruit large and handsome, roundish-conical, bright scarlet, moderately firm, of fair quality. Plant a strong grower with large, healthy foliage, and very productive; succeeds on light or heavy soil



WARFIELD.

Desirable for home use and near-by market. One of the best of the later introductions. Season early to medium.

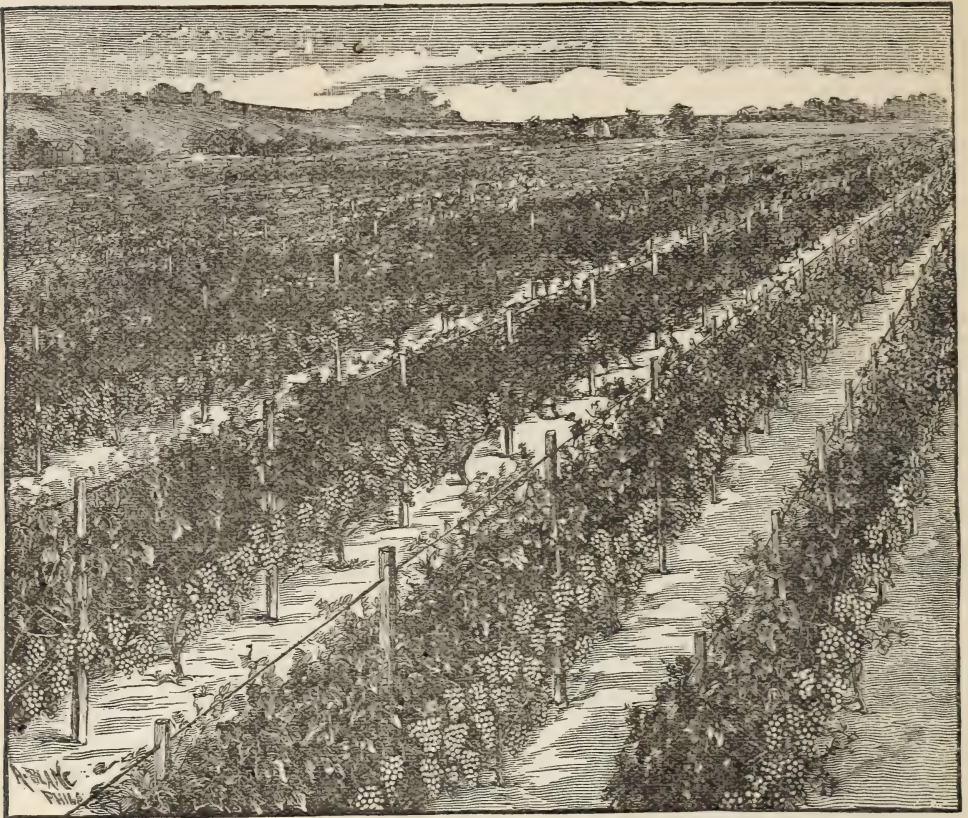
**Princess.**—One of a number of seedlings grown by John C. Kramer, of La Crescent, Minn., from mixed seed sown in 1881. It was named by the Minnesota Horticultural Society at its summer meeting held at Minneapolis in 1885. The Princess took the first prize at that meeting, although there were fifteen other new seedlings competing. It was exhibited in Minnesota and Wisconsin and invariably took the first prize. Mr. Kramer left a strip two rods long and five feet wide unpicked so that visitors might see how it yielded, and when a member of the State Experiment Station came to see it, four persons picked sixty-one quarts from it in one hour. By actual count three of these quarts contained eighteen, twenty and twenty-two berries respectively. The same strip yielded twenty-five quarts the next picking, and fourteen at a still later date. This is by no means its best record, but this is good enough. The following is the substance of a letter written by John S. Harris, of the Minnesota State Horticultural Experiment Station, to the secretary of the State Horticultural Society: "Growing upon Mr. Kraner's grounds, this new seedling, the "Princess," is the most promising strawberry that has ever come to my notice. The plants are hardy, vigorous and enormously productive. It roots deep and stands drought well. The fruit is very large, averaging larger than Jessie or Bubach's (No. 5), uniformly perfect in form, ripens all over at once, and holds up its size well to the end of the season. Whenever it has been exhibited in competition it has been awarded a first premium over all others. The yield of fruit in 1888, upon two square rods of ground, was at the rate of 825 bushels per acre. The quality of the fruit is pronounced to be better than the Crescent."



HAVERLAND.

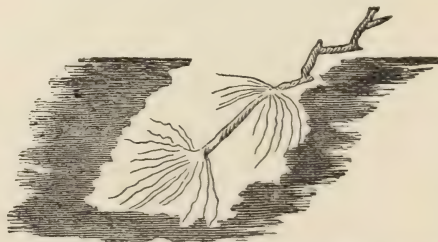
**Haverland (P).**—Originated in 1882 by B. H. Haverland, of Hamilton County, Ohio, from seed of the Crescent fertilized by the Sharpless. During the past dry season it made a better growth than any other variety. Not a spot of rust appeared on it; wonderfully productive. The originator says, "It is, perhaps, the most productive of any strawberry now cultivated. The berries are firm, uniform in shape, very large and of most excellent flavor, and bright red color. It sells more readily and brings a better price than any other strawberry. The plants are very large, healthy, vigorous and ripen their fruit evenly and early, holding on through the season."

## GRAPES.



### DIRECTIONS.

Plant in rows north and south eight feet apart each way in soil that is well drained. Trim off the top of the vine to one straight cane, plant in a slanting hole, inclining the vine in the direction in which it is intended to be trained upon the trellis, in this position it can be laid down more easily for winter protection.



Cultivate thoroughly and grow the first season without restraint. In the fall prune off all branches and side shoots and cut the cane back to within one foot of the ground.





**WINTER PROTECTION.**

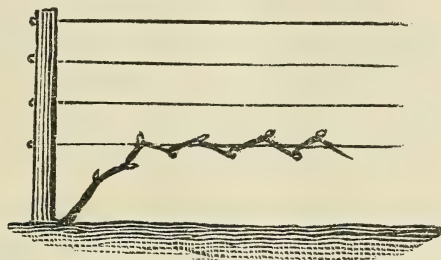
Press the cane to the ground and cover with four or five inches of soil, and before cold weather sets in cover with a mulch of straw or coarse manure.

**TRAINING AND PRUNING.**

The following spring a stake six feet long should be set close to each vine. Permit only one bud to grow, and that the strongest. Keep all the buds rubbed off while small. Tie this growing cane to the stake and when it reaches the top pinch off the end. The laterals or branches should also be pinched off when they have reached the second leaf. The second fall cut off all of the laterals up to the cane and cut the cane back to four feet. The vine may now be buried as for the previous fall.



It will be found convenient to take out a little earth close to the vine on the side toward which it is to be bent. The following or third spring a trellis should be built. Set posts twelve feet apart, on which fasten four wires, using No. 12 galvanized iron, the lowest one ten inches from the ground and those above ten inches apart. They should be fastened with staples so as to allow the wires free play. One end should be fastened securely. The other end post should have holes bored, through which to pass the wire, fastening the wire to a roller so that the wire can be tightened by turning the roller, which should be made on the principle of a windlass. When the wire is tight secure the roller from turning by a pin in the post.



Along the lower wire of the trellis the vine should be tied. Two shoots will grow from nearly every bud. Thin these out leaving the strongest ones at a distance of ten inches apart, when they have reached the top wire pinch off the end. Also keep the laterals pinched back, leaving one new leaf at each pinching. In pruning the third fall select the strongest cane near the extremity of the vine that was tied in the spring to the lower wire, and cut it off at a length to reach the next vine on the trellis. This cane must be tied to the lower wire the next spring and will complete the permanent vine. In pruning do not cut within an inch of the bud. Bury as directed and subsequent treatment will be same as previously described. The fourth fall the vine will consist of a main arm extending along the lower wire to the next vine with spurs of two buds each ten inches apart.

**BLACK GRAPES.**

**Moore's Early.**—Black with heavy blue bloom. Bunch medium size, berry very large, better than Concord in quality and with more pulp; vine a moderate grower, very healthy and hardy, moderately productive; a valuable market variety on account of its earliness, ripens some twenty days earlier than the Concord. Exempt from mildew and blight.

**Eaton.**—New black. Ripens with the Concord which it resembles in growth, foliage, and

general appearance; bunch large to very large; berry very large; vine vigorous and productive; quality about the same as the Concord.

**Concord.**—The grape for the million. Black. Bunch and berry large, hardy, vigorous and productive, quality fair, succeeds everywhere. The most extensively planted grape in America.

**Barry** (Rogers' No. 43).—Black. Bunch and berry large and compact; vine vigorous and healthy; ripens with the Concord; quality excellent.

**Worden.**—Black. Bunch very large and compact; berry very large, fully as productive, hardy, and as strong a grower as the Concord; quality much better and ripens a few days earlier. Will not keep as well, but if handled when first ripe is as good a shipper as the Concord; is steadily increasing in popular favor.

**Rochester.**—Bunch large, shouldered, frequently double shouldered, very compact. Berries medium to large, round, dark purple or purplish lilac, peculiar with thin white bloom. Flesh very sweet, vinous, rich and aromatic. Vine a remarkably vigorous grower; wood short jointed and hardy; foliage large, thick, healthy. It requires ample room and rather long pruning. Ripe usually first week in September.

**Wilder** (Rogers' No. 4).—Black. Bunch and berry large, of excellent quality and a good keeper; vine a moderate grower, hardy and productive, but liable to overbear; ripens with the Concord.

**Hartford.**—Black. Bunch and berry large; vine hardy, vigorous and productive. Quality not as good as the Concord but prized for market on account of its being about a week earlier.

**Champion or Talman.**—Black. Bunch and berry large, hardy, vigorous and productive. Valued chiefly for its earliness, being two weeks earlier than the Concord. Has been largely superseded by better varieties.

**Early Ohio.**—New black. Originated at Euclid, Ohio, by Mr. R. A. Hunt. Bunch large, shouldered; berry medium. The earliest grape known, ripening fully ten days earlier than Moore's Early. Unlike most early varieties the berries never shell, a quality highly appreciated by those who grow grapes for market. Vine a strong grower and very productive, perfectly hardy, having stood uninjured in very severe weather when Concord buds in the same vineyard were ruined. In growth, foliage and general habits the vine resembles the Concord.

**Janesville.**—A very desirable grape on account of hardiness, quality and early ripening. Color black; bunch solid, very good flavor, when fully ripe quite sweet. Ripens from the fifteenth to the twentieth of August.

**Ives.**—Black. Bunch and berry small to medium, very hardy, vigorous and productive. Ripens with Hartford.

**Herbert** (Roger's 44).—Impregnated by Black Hamburg. Bunch large, rather long, loose; berry large size, round, sometimes a little flattened; black; flesh very sweet and tender. Early and productive.

**North Carolina.**—Belongs to the Isabella type and is a showy market grape of a fair quality. Bunch medium to large, occasionally shouldered, moderately compact; berries large, oblong, black with slight blue bloom; flesh pulpy but sweet; skin thick; hangs well to the bunch, will keep well and carry to market in good condition. Ripens early, coloring a few days before the Concord. Vine an enormous grower, hardy, healthy and very productive.

## RED GRAPES.

**Moyer.**—Originated in Canada, a cross from the Delaware. In habit of growth, hardiness, quality and size of cluster, it resembles the Delaware very much, but ripens with the very earliest (claimed by some to ripen ten days earlier than the Delaware), has larger berries; free from rot or mildew. Has stood thirty-five degrees below zero unprotected without injury. Very sweet as soon as colored. Skin tough but thin. Pulp tender, juicy, of delicious flavor. As an early market grape, can be marketed before others are colored.

**Massasoit** (Rogers' No. 3).—Red. Bunch and berry large, quality superb, has no pulp, good grower and hardy, highly prized where it succeeds.

**Lindley** (Rogers' No. 9).—Red. Bunch medium; berry large, ripens with Delaware, vigorous, hardy, of excellent quality and a splendid keeper. One of the best and earliest of Rogers' Hybrids.

**Delaware.**—Rather slow grower. Bunch medium, compact; berries medium, skin thin, dark

red color; flesh tender and juicy, exceedingly sweet. Ripens in September and as a rule commands in market from one-third to one-half higher price than the ordinary varieties.

**Agawam** (Rogers' No. 15).—Vigorous grower, bunch good size, shouldered, rather loose. Berries large and round, color darker than Delaware, skin thin with juicy pulp, very sweet and rich aromatic flavor. Season ten days earlier than Concord.

**Brighton**.—Of recent introduction and truly a superb grape. In color, form of bunch and berry it resembles the Catawba, combining the sprightliness of that variety with the richness and sweetness of the Delaware. Vines vigorous, hardy, productive, and quite free from mildew.

## WHITE GRAPES.

**Niagara**.—White. Probably next to the Concord the most extensively planted grape in America. Bunches very large, often weighing one pound. Berry large, immensely productive, a rank grower, quality when in its best condition excellent, a little earlier than the Concord, has a flavor peculiar to itself that is esteemed by many.

**Green Mountain or Winchell**.—New white. A strong grower of excellent quality, very hardy, healthy and productive, ripens two weeks earlier than the Concord. A very desirable acquisition to our list of White Grapes. From the introducers we quote the following: "All we have said in the past relative to the merits of this grape has been more than realized the past season; while we ourselves believed we had in the Green Mountain a very superior grape yet as our vines increase in age we are surprised at its wonderful productiveness, beauty of bunch and deliciousness of fruit."

**Empire State**.—The Empire State is a seedling of the Hartford Prolific fertilized with the Clinton. A good grower and fruiter in every respect. Bunches large, from six to ten inches long, shouldered. Berry medium to large, roundish, oval, color white with a very light tinge of yellow, covered with a thick, white bloom; leaf thick, smooth underside; flesh tender, juicy, rich, sweet and sprightly, with a slight trace of native aroma; continuing a long time in use. Vine very hardy.

**Lady**.—This variety as yet has not developed a weak point. It ripens in advance of the Concord; is hardy, vigorous and productive; has no superior in resisting mildew. In color it is a yellowish green; pulp tender, sweet, rich and sprightly. It is a seedling of the Concord, and is a very good and reliable White Grape for all localities and climates.

**Pocklington**.—Vine very vigorous, hardy and productive. Bunch and berry of good size, color a light lemon yellow, flesh moderately tender, sweet with a peculiarly aromatic flavor.

**Moore's Diamond**.—A most desirable new White Grape originated by Jacob Moore, of Brighton, New York. A seedling of the Concord fertilized with the Iona. Bunch large; berry large and nearly free from pulp which makes it almost transparent when held up to the light, quality excellent; strong, vigorous grower, hardy and productive. Ripens a few days before Concord.

**Elvira**.—White. Bunch small and compact. Ripens with the Catawba.

**Martha**.—White. Bunch and berry medium, vigorous and productive. Ripens a little earlier than the Concord and is of better quality.

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## GOOSEBERRIES.

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A deservedly popular fruit, making, as it does, the richest of canned fruit for winter consumption, and also, as is the case with the improved varieties, being excellent for eating out of hand. Set in rows six feet apart, four feet apart in row. Cultivate clean. In November, for protection from late, spring frosts, it is desirable to cover the bushes with coarse litter, or still better, bend them gently to the ground and cover with earth. Thus treated abundant, annual crops will be obtained. The American varieties, though not so large as the English sorts, are of fine quality and are not subject to mildew.

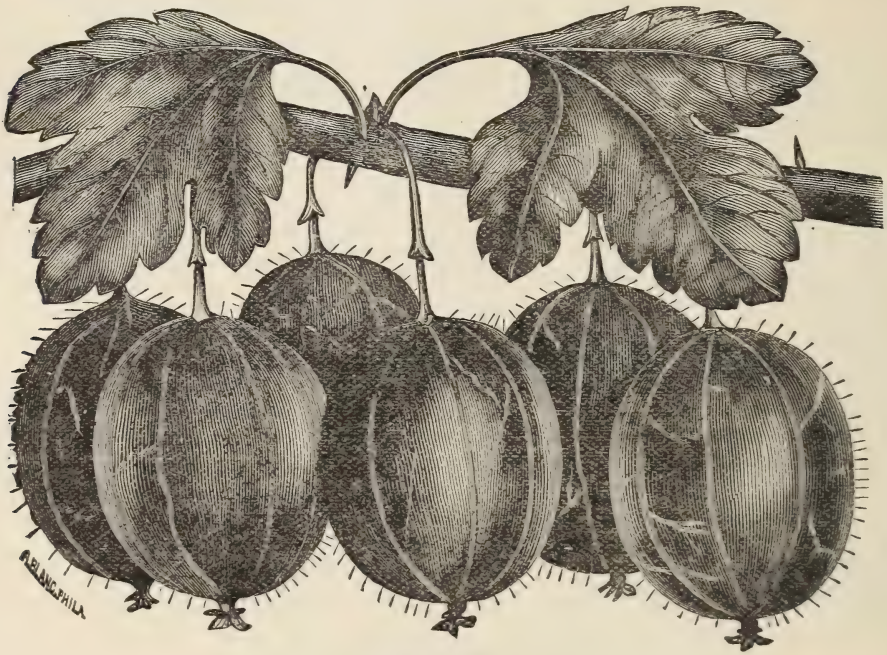
**Downing**.—Fruit larger than Houghton, roundish, light green with distinct veins; skin smooth; flesh rather soft, juicy and very good. Vigorous and productive.

**Houghton's Seedling.**—A medium sized, American variety which bears abundant and regular crops, and never mildews. Fruit smooth, red, tender, and very good. Very valuable.

**American.**—Very hardy; the bush is a slow grower. Fruit medium, red, very productive.

**Transparent.**—New, very hardy. Bushes of strong, vigorous growth, maturing and fruiting early, bears abundantly. Berries almost as large as Downing, pale greenish color, quality good.

**Industry.**—Though an English variety it succeeds admirably throughout the northern portion of the United States, but it is a little impatient of hot suns, and south of New York it is not always to be depended upon. Under favorable conditions it bears immense crops and is quite exempt from mildew. It has the peculiar advantage of coming into leaf before it flowers, consequently the foliage protects the bloom from destructive spring frosts. The berries are exceedingly large, of a dark red or cherry color, and of delicious quality when ripe. It has been fruited quite largely in this country for several years and has thus far proved unequalled for size, flavor, productiveness and vigorous growth. In cool, rich soil and with a northern exposure it will yield an abundance of large, luscious fruit. And it also succeeds well under the shade of trees when not too dense.



INDUSTRY.

**Red Jacket.**—A new, red berry, as large as the largest; smooth, very prolific and hardy; quality and foliage the best. For many years it has been tested by the side of the best American and English sorts and is free from mildew either in leaf or fruit. Promises to be the variety we have so long been waiting for, equal to the best English kinds and capable of producing large crops under ordinary cultivation wherever gooseberries can be grown.

**Triumph.**—An American seedling of the English type; large, hardy and an immense bearer. Very promising.

**Oregon Seedling Gooseberry.**—This is a berry that comes to us well recommended. It is a thrifty grower, yields enormously; very fine flavor. So far it seems proof against mildew.

## CURRENTS.

Use the same care in preparation of the soil and planting that is advised for trees. Currants should have manure in abundance. Plant in rows, north and south, six feet apart and four feet apart in the rows. In the spring prune off the old wood close to the ground, and as the fruit is borne on the last year's growth of wood, they can be kept thrifty and healthy by this means.

All are familiar with the old type Currant—small berries, short clusters of fruit mixed with the leaf stems, and an impossibility to gather them economically for home use.

It has been our hope to secure a variety that with the hardiness and vigor of the improved Red Dutch would be combined the conditions of quality, size and productiveness of fruit, as to warrant its propagation for market. We have met these requirements in a new seedling Currant, to which the household name of our magnificent State has been given—The North Star Currant. We quote from the "Farm and Home" of Springfield, Mass., July, 1886:

"Last summer a branch of a new currant was sent to us, which, in several important requisites to a first-class fruit, so far excelled other varieties that we had a photograph taken and an engraving made which is given herewith. The originator, a skillful fruit grower, selected this currant from a very large number of seedlings on account of its wonderful vigor and growth. Subsequent trial showed it to the same advantage when grown from cuttings, and its prolific habits appeared to be as wonderful as it will ever be possible for a currant to be. The size of the fruit is about the same as the Cherry currant. Our engraving shows the berries as one-half inch in diameter. We have proposed to give the actual size, contrary to the rather too prevalent custom of exaggerating new fruits. The color is bright red and the flavor is superior to the red Dutch or Cherry currants. Its most remarkable trait is the length of the bunches. We selected several that were five and six inches in length, and four inches long was the most common dimension on the best branches. The owner of this new fruit has not yet given it a name, but has changed his first intention of keeping his entire stock and growing only the fruit for market. In due time when a sufficient stock shall have been propagated to allow it to be offered for sale, it will be named and our readers will be kept informed of its merits on further trial. At present the appearance of the plant is all that could be expected. The entire stock as fast as it can be grown has been purchased by an enterprising nursery, who prefer to have their intentions and name withheld from the public until they shall have had time and plants to respond to the numerous inquiries that are sure to follow such an announcement in our columns."

**The North Star Currant.**—The points of excellence are, its hardiness, vigorous growth of wood, early fruiting and great productiveness. The average growth for 1889, (an extremely dry season) on light gravelly soil, was from thirty to thirty-six inches. The size of the berry averages one-half inch in diameter, and the length of the fruit cluster frequently measures five and six inches, and averages over four and one-half inches. It has a naked stem which attaches the cluster to the wood and allows the fruit to be readily picked. It is superior in quality, rich in flavor and much less acid than old sorts. (See illustration on front of cover.)

**Fay's Seedling.**—A seedling from the Cherry and Victoria; color red; equal in size to the Cherry currant, better in flavor, less acid, very prolific and easy to pick.

**Improved Red Dutch.**—Very prolific and regular bearer; a profitable market variety.

**Cherry.**—Strong growing; fruit of large size; bunches short; dark red and rather acid.

**La Versailles.**—A French variety; vigorous grower; very productive. Fruit of large size, dark red, long bunches.

**Victoria.**—The best very late variety. Abundant bearer; bunches extremely long; berries of medium size, brilliant red and of the highest quality. Owing to its lateness, fine shipping quality and great productiveness it commands a high price.

**Long Bunch Holland.**—Large, bright red with very long bunches.

**White Dutch.**—An excellent and well known sort.

**White Grape.**—Very large, yellowish-white; sweet or very mild acid; excellent quality and valuable for the table; the finest of the white sorts; very distinct from the White Dutch, having a low spreading habit and dark green foliage. Very productive.

**White Gondoin.**—A large, light-colored sort, sweet, vigorous and productive.

**Black Naples.**—A reliable, good, black currant; berries very large, sometimes half an inch

in diameter; hardy and productive; excellent for sauce, pies and jellies; the plant is a very strong grower and abundant fruiter.

**Crandall.**—A new black currant originated in Kansas; berries very large—from one-half to three-fourths inch in diameter; very productive; proof against the currant worm; excellent for pies, jellies or jam; very hardy; a strong grower; ripens about July 25th; does not fall from bushes when ripe; bears shipping well and is entirely distinct from the cultivated black currant, lacking the strong, musky flavor as found in the English black currant, and which is so much disliked by many. This is evidently a hybrid currant.

**Lee's Prolific.**—The best black currant for all purposes. Early, large and productive. The quality is splendid, it is as sweet as a huckleberry and much like it. Plant Lee's Prolific by all means.



LEE'S PROLIFIC.

## RASPBERRIES.

This popular berry coming just after strawberries, is most welcome to fill out the berry season before blackberries ripen.

### GENERAL DIRECTIONS FOR RASPBERRIES AND BLACKBERRIES.

Plant in rows seven feet apart and three feet in the row. In the North it is best to plant both Raspberries and Blackberries a little below the level so that they can be covered easily in the fall. Cultivate thoroughly, and when the young shoots are fifteen or eighteen inches high, pinch them off, thus causing laterals to push out. In the spring cut these back to twelve or fifteen inches. When the fruit is gathered cut out the old and weak canes.

**PROTECTION.**

For the winter protection of the plants, commence at the north end of the row, remove the dirt from the north side of the hill about five inches. Gather the vines together with a fork, and with the foot gently press the root to the north, laying the vines flat on the ground, then cover with a few inches of earth. It is best to have two persons work together, one to lay the vines over and the other to cover them. In the spring remove the covering carefully with a fork.

**SUPPORT.**

Black Raspberries and Blackberries should be supported. To do this use No. 12 galvanized wire. Set posts 24 feet apart, four feet high, and stretch a wire tight on each side, and fasten the ends three feet from the ground. On the intervening posts drive nails to support the wire, high enough in the center to keep the wire tight.

**RED RASPBERRIES.**

**Cuthbert.**—A variety of the greatest excellence, and one of the new kinds that may be pronounced perfectly hardy. The canes are tall and vigorous and enormously productive. Berries very large, conical, rich crimson, very handsome, and so firm that they can be shipped hundreds of miles by railway without injury; flavor rich, luscious, best; commences to ripen moderately early and holds on until all others are gone.

**Clark.**—Large, conical, bright crimson; juicy, sweet, and excellent; highly flavored; a strong grower, productive and hardy; one of the very best.

**Turner.**—This is undoubtedly one of the most profitable red raspberries for marketing now under cultivation. It is a stout, healthy grower, very hardy, and immensely productive. The fruit is of the largest size, and presents a fine appearance.

**Hansell.**—One of the very earliest and most desirable of red raspberries; color, bright scarlet; quality excellent; very productive and a fine shipper. Its great earliness causes it to bring the highest price in the market.

**Reliance.**—A seedling of Philadelphia, and superior to its parent in every respect. Hardy and productive. Fruit large, dark red, of excellent quality, and a good shipper.

**Golden Queen.**—A seedling of Cuthbert (Queen of the market), equalling that variety in vigor of bush and productiveness. Fruit large; color a pure yellow; quality best; ripens with Cuthbert. A decided acquisition.



GOLDEN QUEEN.

**Marlboro.**—The largest early red raspberry, ripening only a trifle later than Hansell. Beautiful bright scarlet, of good but not high quality, cane hardy and productive. All things considered, probably the best early raspberry for the North.

**Brandywine.**—The fruit of this variety is very handsome and produces well. It is an old and valuable variety that is coming into prominence and is in great demand.

**Shaffer's Colossal.**—One of the best red berries for family use, unequaled for canning; flavor rich and sprightly. The bush is a strong grower and entirely hardy, does not "sucker" or sprout from the roots like other red varieties, but propagates from "tips" like the black-caps. The variety is wonderfully prolific, has yielded 100 bushels per acre for several years in succession from the same plantation. A good market berry where known.

**Excelsior.**—An ever-bearing red raspberry. It bears a fair crop on the wood of last year's growth, from the middle of June until August, and the young wood of the present year's growth comes in bloom in June and July.

**Thompson's Early Prolific.**—A valuable new variety, bright red, firm and excellent quality.

### BLACK CAPS.



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BY A. BLANG-PHILA

NEMAMA.



**Nemaha.**—Originated by Hon. Robert Furnas, of Nebraska. Has been well tested on our experimental grounds and we recommend it. For hardiness, strength and growth of cane, productiveness, size and quality of fruit it is unsurpassed. The berry is large, black and firm. It is doubtful if a better berry can be found.

**Doolittle.**—A well known early variety, good quality and fair size, very hardy and productive.

**Ada.**—A new distinct variety, vigorous, upright growth; few thorns, very hardy, prolific; latest of all in blooming and ripening; contains very few and small seeds.

**Winona.**—A large and desirable new variety, a fine grower and hardy; fruit buds close together and a heavy bearer.

**Early Ohio.**—This is a very productive black cap and for canning or evaporating it is claimed to be one of the most profitable sorts. Berry not quite as large as Gregg, but of finer quality; has been grown very extensively with great profit, and is highly recommended.

**Gregg.**—This is a most remarkable, hardy black cap, and is undoubtedly one of the best market raspberries grown, being very productive, and from one-third to one-half larger than any other black cap the yield under good cultivation is simply enormous. The berries are of very large size and covered with a whitish bloom; the quality is very good and they are firm in shipping. At the Centennial Exposition it was awarded the very highest premium for Raspberries.



WINEBERRY.

**Earheart.**—Originated in Illinois thirteen years ago. The plant is an extremely strong, stocky grower. Hardy, withstands heat and drought in a remarkable manner. Fruit of large size, jet black, of good quality. The first or main crop ripens early in July. At the same time the first of the new canes begin to bloom, ripening their first fruit soon after the main crop is gone, and continuing to bloom and produce fruit until stopped by freezing in the fall.

**Johnson's Sweet.**—Very highly recommended. Has been thoroughly tested on our experimental grounds. Perfectly hardy and a good, strong grower. Fruit medium to large, color black. Its most remarkable feature is sweetness, requiring little or no sugar. For drying purposes it has no superior.

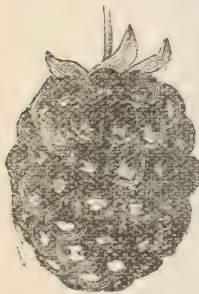
**Palmer.**—A new seedling, hardy, early, large size, good quality and very productive.

**Kansas.**—A seedling originated at Lawrence, Kansas. Berries large as the Gregg, jet black, handsome and of excellent quality.

**Wineberry (Japan).**—“This superb novelty lately introduced, originated from seeds sent home by Professor Georgeson while at the Imperial College of Agriculture of Japan. The seeds were obtained from plants in their wild state, growing in the mountains of that country. The canes of this interesting plant are large, robust, and entirely hardy here. They are thickly covered with purplish-red hairs. The leaves are large, tough, dark green above and silvery-gray beneath. Each berry is at first enveloped by the large calyx, forming a sort of burr, which is also covered with purplish-red hairs, so as to make it appear somewhat like a moss rose. This ‘burr’ soon opens and reveals rich, wine-colored berries, of sprightly, acid flavor, that are sure to be highly prized. It is an interesting plant to have in any collection.”

## BLACKBERRIES.

**Stone's Hardy.**—An upright and vigorous grower; stocky, short-jointed; ripens early; turns dark red, and is the hardest known blackberry. The fruit is, when fully ripe, glossy black, has no hard core, and is delicious in flavor. Commences to ripen its first fruit five days later than Snyder, and continues bearing ten days longer. The fruit is well protected by thick, dense foliage.



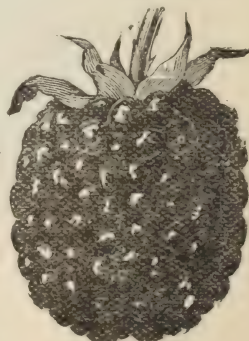
WACHUSETT.

**Ancient Briton.**—A valuable variety that is becoming very popular in many sections. Sells well in market and is very profitable; berries large and sweet. Does better on sandy land than on heavy soil. Requires winter protection, but is well worth the little labor this costs.

**Wachusett Thornless.**—A grand berry for the family garden, especially at the North as it is hardy; strong, vigorous canes free from thorns; fruit of good size and fine flavor; ripens medium to late and continues in bearing a long time, often into September. Productive under high culture, but will not thrive on dry, thin soil, and with the slovenly culture so often given to the blackberry.

**Erie.**—This new berry is a vigorous and healthy grower and quite hardy; very productive of berries of the largest size, coal black, firm and solid. Ripens early.

**Minnewaski.**—This is a new variety and it comes very highly recommended. “Upon the grounds of the originator in New York, it has exhibited many excellent traits, which, if continued in other sections and under general culture, will make this variety very valuable. It is claimed to be of superior merit by reason of its hardiness, large size, and enormous productiveness.” As to ripening its originator says: “The Minnewaski on a north slope, unprotected, and the Early Wilson on a south slope, protect-



ERIE.

ed, ripened at the same time and before any other variety growing on the same place." The fruit is delicious and large enough to rank with the larger varieties, of a glossy black color, tender, juicy, sweet and of a fine aromatic flavor. It has no hard, sour core, but is tender all the way through.

**Snyder.**—One of the best blackberries for market in the far north, as it is vigorous, hardy and productive. Though the berries are medium in size, they are of a sweet, juicy flavor, and when fully ripe without the hard core of many sorts.



SNYDER.

**Agawam.**—Fruit of fair size, jet black, sweet, tender and melting to the very core. For home use it has no superior, being sweet throughout as soon as black. It is extremely hardy and healthy, and very productive. As an eminent small-fruit grower says: "It stands at the head for hardiness, fruitfulness and sweetness." No fruit garden should be without this excellent variety.

**Taylor's Prolific.**—A suitable companion for Snyder, for it also is a variety of great hardiness and productivity, but ripens somewhat later. Berries are large and very sweet, with a rich, delicious flavor.

**Kittatinny.**—Large, roundish, conical; glossy black, juicy, sweet, and better in every respect than the Lawton.

**Early Harvest.**—One of the earliest blackberries in cultivation. A very valuable variety in southern locations; needs protection.

**Wilson, Jr.**—Large and productive. Luscious and sweet as soon as colored. Ripens early and is said to be more productive than its parent, Wilson Early.

**Ohmer.**—Hardy, healthy, very large; ripening after raspberries are gone and lasting until late in August. Excellent quality, firm, no core, sweet before soft or fully ripe.

**Evergreen.**—The original plant was brought from Germany. The vine has the habit of the grape and can be grown to almost any length. Annual and abundant bearer, and bears from August until it freezes in the fall. The fruit is equal in size and quality to the Lawton, and by some thought to be superior.

## DEWBERRY.

The Dewberry as one of our small fruits is demanding considerable attention from our fruit growers. Coming along as it does between the raspberries and blackberries it is of great value. The best mode of culture is to treat it somewhat like the strawberry and plant it in rows six feet apart with the plants three feet distant in the rows. Keep the soil mellow and clean.

**Lucretia.**—One of several that have proved successful. It is a strong grower and exceedingly productive. The fruit is large, luscious and handsome. It is of a glossy, shining black and it ripens from the first to the middle of July.



LUCRETIA.

**Windom.**—Is a berry that has proven of special value on the prairie soil of the Northwest. The fruit ripens with the later raspberries and is of large size and good quality. The plant is very hardy and more productive than any blackberry. After the second season from planting the vines trail a little, but are stocky, growing about one and one-half feet high with numerous branches. It presents a fine appearance when in bloom, as the blossoms are all on the outside of the hill, but as the fruit gets size the plant gradually settles, and at the time of ripening is very near the ground, and the fruit is much shaded by the new growth of the plant, and is thus protected from winds and

the beating storms. The fruit is superior for cooking, canning and preserves, and if left on the vines until well ripened, is one of the best for dessert, and will hang on ten days or more, after turning black. It seems to us, that at least on the prairies of the Northwest—the land of high winds, blizzards and forty degrees below zero, where all varieties of the blackberry must have winter protection—the hardy dewberry must become popular, for the following reasons: It is of low spreading growth, the fruit and canes are not injured by our high winds, nor the canes injured by being broken by snow banks. The vines are as easily given winter protection by mulching as the strawberry.

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## JUNEBERRY.

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**Improved Dwarf Juneberry.**—The Juneberry is one of the most valuable berries, and it should be planted on every farm in the West. The wood is hard and firm and endures the extremes of our climate without injury. Its leaves are dark, glossy green and very much resemble the pear. The plant propagates from suckers. The flowers appear about the same time as the apple. The petals are white and five in number. The fruit is borne in clusters like the currant and ripens in June. Its size equals the wild gooseberry; shape round; color a reddish purple at first and becomes a bluish black when fully ripened. Its flavor approaches the huckleberry, a mild, very rich, sub-acid. Most people like its quality and pronounce it delicious. It may be served with sugar and cream or cooked as sauce, and is splendid canned for winter use. The plant is about the height and form of the currant bush. It produces fruit in enormous quantities and bears every year. It is also perfectly hardy, not being injured by wet, cold or dry weather, and needs no special treatment. Rabbits do not injure it, and it will grow readily with only a scanty root. Set the plants 4x6 feet apart.



JUNEBERRY.

## ASPARAGUS.

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Asparagus is a gross feeder. To make a good bed in the garden throw out eighteen inches of the top soil and fill in with the richest well-rotted manure, which cover with six inches of good soil; in this set the plants two feet apart. **Keep the bed clean**, and in the fall cover with twelve inches of well rotted manure.

**Conover's Colossal.**—An old and valuable variety; large, tender and early.

**Palmetto.**—A valuable new variety of unusually large size, even and regular in growth and quite early. Well adapted for all sections North and South.

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## RHUBARB.

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Exceedingly valuable for pies and tarts; no garden, especially in a new country, should be without it. Set plants 3x6 feet apart.

**Linnaeus.**—Very large, productive, excellent.

**Victoria.**—Very large, long; great market sort.

**Excelsior.**—Very vigorous; stems three feet long, one and one-half to three inches in diameter; very tender, skin not tough or stringy. Especially valuable for preserving. Put it into a jar with clear cold water and cover up tight. The flavor is exceedingly pleasant.

## SHADE AND ORNAMENTAL TREES.

We wish to call attention especially to the following list of shade and ornamental trees, which we have selected with great care to meet the wants of planters. The extreme changes of temperature experienced here in the Northwest necessitates the selection of the most hardy, or great disappointment ensues. Of course, in the more favored localities, semi-hardy varieties may be planted, but when in doubt, planters will do well to write in to the Company, and the desired information will be gladly given.

In planting groves the trees should be set from sixteen to twenty-four feet apart, setting each variety by itself. The distance apart depends upon the habit of the tree selected. Give them good cultivation in order to obtain the best results.

Specimen trees should be set by themselves with plenty of room for development. Cut back long limbs on the soft maple and elm to prevent breaking off by high winds.

### ACER. Maple.

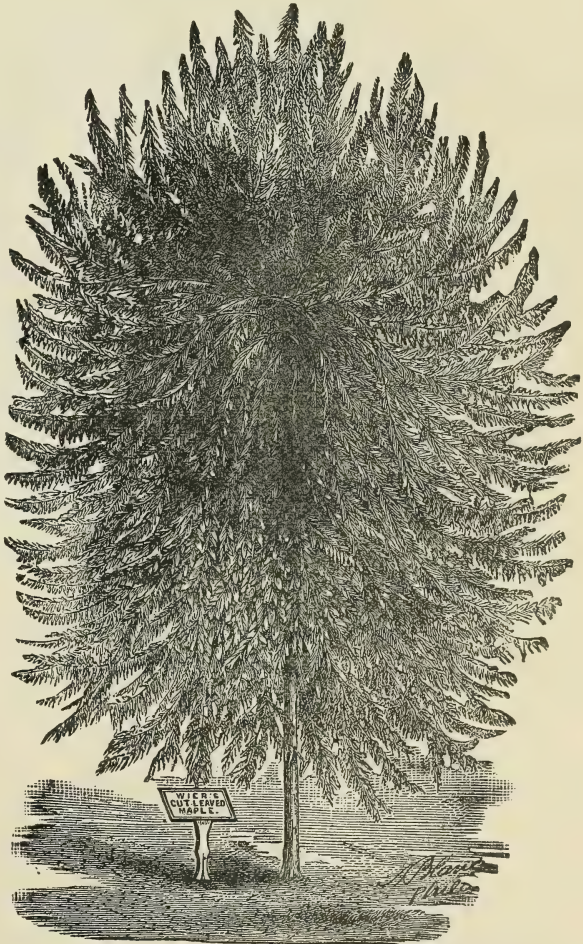
A valuable and highly ornamental family of trees. The maples are regular in outline, beautiful in foliage, vigorous growers, free from all diseases, and adapted to all soils; merits which deservedly render them universally popular.

**Acer Dasycarpum or Eriocarpum.** WHITE OR SILVER-LEAVED MAPLE.—A North American species of rapid growth, large size, and irregular rounded form; foliage bright green above and silvery-white beneath; tree very hardy and easily transplanted. Where immediate shade is required one of the most useful trees; also a favorite street and park tree.

**A. Platanoides.** NORWAY MAPLE.—Native of Europe. A large handsome tree, of a round, spreading form, with broad, deep green shining foliage. Its compact habit and stout vigorous growth, render it one of the most desirable species for the street, park or garden.

**A. Pseudo Platanus.** EUROPEAN SYCAMORE MAPLE.—From Europe. A handsome tree of rapid upright growth, with large foliage, and smooth ash gray colored bark.

**A. Saccharinum.** SUGAR OR ROCK MAPLE.—A well known native tree



WIER'S CUT-LEAVED SILVER MAPLE.

of elegant pyramidal form, valuable both for the production of sugar and for its wood; its stately growth, fine form and foliage make it desirable as an ornamental and shade tree.

**A. Spicatum.**—A very attractive native species of moderate growth; leaves medium size, rough, three to five lobed, somewhat pointed; flowers greenish in closely branched clusters, becoming pendulous.

**A. Var. Wierii Laciniatum.** WIER'S CUT-LEAVED SILVER MAPLE.—It is a variety of the silver-leaved, and one of the most remarkable and beautiful trees, with cut or dissected foliage. Its growth is rapid, shoots slender and drooping, giving it a habit almost as graceful as the Cut-Leaved Birch. The foliage is abundant, silvery underneath, and on the young wood especially, deeply and delicately cut. The leaf stalks are long and tinted with red on the upper surface. It ranks among the most interesting and attractive lawn trees, and may be easily adapted to small places by an occasional cutting back, which it will bear to any degree necessary, as well as a willow.

### AMELANCHIER. Mespilus.

**A. Botryapium.**—An American tree known as "June Berry," "Wild Pear," "Service Tree," or "Shad Blow;" grows 30 to 40 feet high; of fastigiate form; flowers white, produced in great profusion in April, succeeded by a small fruit of a purplish color, ripe in June and pleasant to the taste. One of the finest very early flowering trees; not appreciated as it should be.

### ÆSCULUS. Horse Chestnut.

**Æ. Glabra.** OHIO BUCKEYE.—A native of the Western States, forming a large sized tree. Leaves smooth, flowers yellow. Trees of elegant habit, magnificent foliage, and fine large spikes of flowers in May and June.

### BETULA. Birch.

The Birch is deservedly becoming very popular as an ornamental tree. Its graceful swaying branches of a dark chocolate color, contrast beautifully with the silvery whiteness of the trunk. The several varieties are especially adapted for small lawns.

**B. Alba.** EUROPEAN WHITE WEEPING BIRCH.—A graceful tree of moderate size, with silvery bark and slender branches. Quite erect when young, but after four or five years growth assumes an elegant drooping habit, rendering the tree very effective in landscapes.

**B. Populifolia.** AMERICAN WHITE BIRCH.—An American species of rapid growth, with triangular, taper-pointed, smooth and glossy leaves.

**B. Papyracea.** PAPER OR CANOE BIRCH.—Native of America; forms a large tree; bark brilliant white, leaves large and handsome.

**B. Pendula Laciniata.** CUT-LEAVED WEEPING BIRCH.—Beyond question one of the most popular of all weeping or pendulous trees. Its tall, slender, yet vigorous growth, gracefully drooping branches, silvery-white bark, and delicately cut foliage, present a combination of attractive characteristics rarely met with in a single tree.

**B. Atropurpurea.** PURPLE-LEAVED BIRCH.—A variety possessing the vigorous habit of the birches, and having purple foliage.

**B. Fastigiata.** PYRAMIDAL BIRCH.—Of elegant pyramidal habit, like the Lombardy Poplar. Bark silvery-white. Very distinct and ornamental.

### CARPINUS. Hornbeam.

**C. Americana.** AMERICAN HORNBEAM.—A native species, growing from fifteen to twenty feet high. In its mode of growth it is quite similar to the beech, but the foliage is thinner and more irregular in form. Makes a very ornamental and useful hedge.

### CASTANEA. Chestnut.

**C. Americana.** AMERICAN CHESTNUT.—The well known native variety. A stately tree with broader leaves than the Spanish, and producing smaller fruit. When in full bloom one of the handsomest trees.





CUT-LEAVED WEEPING BIRCH.

**CATALPA.**

The Catalpas flower in July when few trees are in bloom. Their blossoms are large, very showy, and quite fragrant. Leaves large, heart-shaped and yellowish green. They are all effective, tropical-looking lawn trees.

**C. Speciosa.**—A variety which is said to have originated in the West. It is finer and hardier than the common, hence better adapted to forest and ornamental planting. Its blossoms open about the middle of July.

**CELTIS. Nettle Tree.**

**C. Occidentalis.** AMERICAN NETTLE TREE OR HACKBERRY.—A rare native tree with numerous slender branches, which spread out horizontally, and thick rough bark. Leaves about the size and form of those of the apple, but more pointed and a bright, shiny green.

**CERCIS. Judas Tree, or Red Bud.**

**C. Canadensis.** AMERICAN JUDAS TREE.—A very ornamental native tree, of medium size, irregular rounded form, with perfect heart-shaped leaves of a pure green color, glossy surface above and grayish green beneath. The tree derives the name of Red Bud from the profusion of delicate reddish purple flowers with which it is covered before the foliage appears.

**CHIONANTHUS. Fringe Tree.**

**C. Virginica.** WHITE FRINGE.—A small native tree or shrub of roundish form, with large, glossy leaves and drooping racemes of pure white flowers, having narrow, fringe-like petals; blossoms in May or June. A superb lawn tree.

**CORNUS. Dogwood.**

**C. Florida.** WHITE-FLOWERING DOGWOOD.—An American species of spreading irregular form, growing from 16 to 25 feet high. The flowers, produced in spring before the leaves appear, are from three to three and one-half inches in diameter, white and very showy.

**CYTISUS. Golden Chain.**

**C. Laburnum.** COMMON LABURNUM OR GOLDEN CHAIN.—A native of Europe, with smooth and shining foliage, and attaining a height of twenty feet. The name "Golden Chain" alludes to the length of the drooping racemes of yellow flowers which appear in June. Very ornamental and free flowering.

**FAGUS. Beech.**

**F. Ferruginea.** AMERICAN BEECH.—A tall, majestic growing tree. Grows abundantly in the Middle and Western States. Foliage fine and general appearance beautiful.

**F. Var. Pendula.** WEEPING BIRCH.—Originated in Belgium. A remarkably vigorous, picturesque tree of large size. Its mode of growth is extremely curious. The trunk or stem is generally straight, with the branches tortuous and spreading; quite ungainly in appearance divested of their leaves, but when covered with rich, luxuriant foliage, of wonderful beauty and grace.

**FRAXINUS. Ash.**

**F. Americana.** WHITE ASH.—A beautiful tree, with trunk perfectly straight. Foliage quite dense, of a dull bluish-green color.

**F. Var. Sambucifolia.** AMERICAN BLACK ASH.—A small or medium sized tree with fine foliage.

**F. Viridis.** GREEN ASH.—A fine tree for general planting. It is a native of Minnesota and seeds very freely.

**GYMNOCLADUS.**

**G. Canadensis.** KENTUCKY COFFEE TREE.—An ornamental, hardy tree; a beautiful shade tree.

**JUGLANS. Walnut.**

**J. Cinerea.** BUTTERNUT.—A native tree, of medium size, spreading head, grayish colored bark, and foliage resembling that of the Ailantus. Nut oblong and rough.

**J. Nigra.** BLACK WALNUT.—Another native species of great size and majestic habit. Bark very dark and deeply furrowed. Foliage beautiful, each leaf being composed of from thirteen to seventeen leaflets. Nut round.

**LARIX. Larch.**

**L. Europæa.** EUROPEAN LARCH.—A native of the Alps of the South of Europe. An elegant, rapid growing pyramidal tree; valuable for timber; small branches drooping.

**MACLURA.**

**M. Aurantiaca.** ORANGE-LIKE-FRUITED MACLURA OR OSAGE ORANGE.—A native tree of medium size and spreading habit. Leaves bright shining green, broad and sharp pointed. The fruit resembles an orange. Valuable and very extensively used for farm and garden hedges.

**MORUS. Mulberry.**

**Russian Mulberry.**—This valuable fruit, timber, and ornamental tree was brought to this country from latitude 49 degrees western Russia, by the Mennonites, and is, as near as we can learn, a cross between the black mulberry of Persia and a native Russian variety. The timber is hard and durable, and is used in the manufacture of cabinet ware, and proves as lasting for fence posts as Catalpa. The leaves are mostly lobed or cut with five to twelve lobes, and are valuable food for silk worms. The bark is grayish white, branches drooping, and the beauty of this as a lawn or street tree is quite enough to commend it; but in addition to these merits it yields an abundant supply of its refreshing berries. The Mennonites use it as a hedge plant, and it makes a beautiful hedge and stands shearing as well as any tree on the list.

**NEGUNDO (Acer Negundo). Negundo Maple.**

**N. Fraxinifolium.** ASH-LEAVED MAPLE.—Box Elder. A native tree, maple-like in its seeds and ash-like in foliage; of irregular spreading habit, and rapid growth.

**PAVIA (Æsculus). Smooth-Fruited Horse Chestnut.**

**P. Flava.** THE BIG OR OHIO BUCKEYE OR YELLOW HORSE CHESTNUT.—A fine native tree, having pale green, downy leaves and yellow flowers. The tree, when it acquires age, forms a globular head twenty to forty feet in height.

**POPULUS. Poplar.**

**P. Alba.** WHITE OR SILVER POPLAR OR SILVER ABELE.—From Europe; a tree of wonderfully rapid growth, and wide spreading habit. Leaves large, lobed, glossy green above and white as snow beneath. Prefers a moist soil, but flourishes anywhere.

**P. Var. Bolleana.** Of recent introduction. A very compact, upright grower, resembling the Lombardy Poplar, with leaves glossy green above and silvery beneath.

**P. Molinifera.** COTTONWOOD POPLAR.—A tall native tree growing 80 feet high, with broadly deltoid, glabrous shining serrate leaves.

**P. Fastigiata or Dilatata.** LOMBARDY POPLAR.—Attains a height of 100 to 150 feet. Well known and remarkable for its erect, rapid growth and tall spiry form. Indispensable in landscape gardening, to break the ordinary and monotonous outlines of most other trees.

**P. Balsaminifera Candicans.** BALM OF GILEAD.—A remarkably rapid growing tree with luxuriant glossy foliage, fragrant buds; fine as a shade tree.

**P. Wabsky.** WABSKY POPLAR.—Healthy and stocky with bright shining leaves.

**P. Siberica Pyramidalis.** SIBERIAN PYRAMID POPLAR.—Full of life and vigor, and a beautiful tree.

**P. Dudleyi.** DUDLEY POPLAR.—Has narrow leaves and resembles a willow in general appearance.

**P. Certinensis.**—A fast growing poplar with oval-pointed leaves. It makes a large tree. Of rather closer and better habit than the cottonwood. More desirable than the common cottonwood for ornamental and timber planting.

**P. Laurifolia.** LAUREL-LEAVED POPLAR.—This is a little slower growing than the *P. Certinensis*. The foliage is very thick and healthy and white on the under side. Distinct and desirable; of rapid growth.

**PRUNUS. Plum and Cherry.**

**P. Simonii.** A distinct species from China. Growth erect; flowers small, white, appearing early in the spring; fruit large, flattened, of the size and appearance of a nectarine, and of a brick-red color; flesh yellow, with a peculiar aromatic flavor.

**P. Virginiana.** CHOKE-CHERRY.—Is largely cultivated for ornament. If grown as a lawn ornament where a symmetrical development can be secured, it is an attractive object.

**P. Pumila.** SAND CHERRY.—This is the true Sand Cherry that is grown both for fruit and ornament.

**P. Cuneata.** WILD CHERRY.—Grown only for ornament; very handsome.

**PYRUS. Mountain Ash.**

**P. Americana.** AMERICAN MOUNTAIN ASH.—A tree of coarser growth and foliage than the European, and producing larger and lighter colored berries.

**P. Aucuparia.** EUROPEAN MOUNTAIN ASH.—A fine hardy tree, head dense and regular; covered from July till winter with great clusters of bright scarlet berries.

**P. Var. Pendula.** WEEPING EUROPEAN MOUNTAIN ASH.—A beautiful variety of rapid growth and decidedly pendulous and trailing habit. One of the most desirable lawn trees.

**P. Domestica.** TRUE SORB OR SERVICE TREE.—Foliage like the American, but more serrated; large brown fruit.

**P. Var. Quercifolia or Pinnatifida.** OAK-LEAVED MOUNTAIN ASH.—A hardy tree of fine pyramidal habit. Height and breadth from 20 to 30 feet. Foliage simple and deeply lobed, bright green above and downy beneath. One of the finest lawn trees.

**P. Hybrida.** HYBRID MOUNTAIN ASH.—A fine tree with beautiful, large foliage; distinct and valuable.

**P. Sambucifolia.** ELDER-LEAVED MOUNTAIN ASH.—An American species with fine foliage.

**QUERCUS. Oak.**

The Oaks, when they attain size, are our most picturesque trees. The species and varieties are numerous, and the majority are adapted to ornament large grounds where they can have an abundance of room. Some kinds, however, are moderate growers, and suitable for small places, especially if kept in good shape by the judicious use of the knife. Our collection embraces a variety of forms and includes the finest.

**Q. Alba.** AMERICAN WHITE OAK.—One of the finest American trees, of large size and spreading branches; leaves lobed, pale green above and glaucous beneath.

**Q. Bicolor.**—A native species with handsome large sinuate-toothed leaves, which turn to a bright scarlet in autumn.

**Q. Coccinea.** SCARLET OAK.—A native tree of rapid growth, pyramidal outline, and especially remarkable in autumn when the foliage changes to a bright scarlet.

**Q. Macrocarpa.** MOSSY CUP OR BURR OAK.—A native tree of spreading form. Foliage deeply lobed, and the largest and most beautiful among oak leaves. Cup-bearing, acorn fringed and burr-like. Bark corky. One of the noblest of the family.

**Q. Prinos.**—CHESTNUT-LEAVED OAK.—One of the finest species; leaves resemble those of the chestnut.

**Q. Rubra.** RED OAK.—An American species of large size and rapid growth; foliage purplish-red in the fall.

**ROBINIA. Locust or Acacia.**

**R. Pseud-Acacia.** BLACK OR YELLOW LOCUST.—A native tree of large size, rapid growth, and valuable for timber, as well as quite ornamental. The flowers are disposed in long, pendulous racemes, white or yellowish, very fragrant, and appear in June.

**R. Hispidia.** ROSE ACACIA OR MOSS LOCUST.—A native species of spreading, irregular growth, with long, elegant clusters of rose-colored flowers in June and at intervals all the season.

**SALISBURIA. Maiden-Hair Tree or Gingko.**

**S. Adiantifolia.**—A remarkable tree from Japan, combining in its habit characteristics of the conifer and deciduous tree. The tree is of medium size, rapid growth, with beautiful fern-like foliage. Very handsome.

**SALIX. Willow.**

**S. Wisconsin Weeping.**—Of drooping habit and hardier than *Babylonica*. Valuable on account of its ability to resist severe cold.

**S. Alba.** AMERICAN WHITE WILLOW.

**S. Vitellina Aurantiaca.** GOLDEN WILLOW  
A handsome tree, conspicuous at all seasons, but particularly in winter on account of its yellow bark.

**S. Caprea Var. Pendula.** KILMARNOCK WEEPING WILLOW.—A variety of the Goat Willow or common Sallow. Grafted five to seven feet high upon the Comewell stock, it forms, without any trimming, an exceedingly graceful tree, with glossy foliage and perfect umbrella head, unique in form. Vigorous and thriving in all soils, it is probably more widely disseminated than any of the finer ornamental trees.

**S. Fragilis.** RED WILLOW.—A good grower. Will become valuable as a timber tree.

**S. Rosmarifolia.** ROSEMARY WILLOW.—A shrubby willow with beautiful blue foliage; a fine ornament on the lawn.

**S. Acutifolia** (Russian).—It has a bright, hard, glossy leaf, which resists the attacks of insects.

**S. Aurea.** GOLDEN WILLOW (Russian).—A rapid growing, healthy tree with a beautiful golden bark.

**S. Laurifolia.** LAUREL-LEAVED WILLOW (Russian).—Very beautiful with its glossy dark green leaves; valuable for lawn, street or timber planting.

**S. Napoleonsis.** NAPOLEON'S WILLOW.—Grows about four feet high, has many small stems and branches; spreads in every direction, often covering a circular space seven or eight feet across. The foliage is narrow, and light bluish-green in color. The whole appearance of the plant is light, airy and graceful. Would be particularly nice for a low screen or division line.

**Sheperdie Argentea.** BUFFALO BERRY.—As a hardy tree there is nothing superior. It is fine for ornamental purposes and also for hedging. It is the latest tree to hold its fruit, and it keeps its leaf until late and is valuable on that account. It bears cutting well. It is independent of drouth and bears abundantly, being well adapted to a dry climate. It seems to be at home in the arid regions of Dakota. The fruit, though small, is quite good in flavor, similar to the cranberry; it makes nice jelly.



KILMARNOCK WEEPING WILLOW.

**TILIA. Linden or Lime Tree.**

The Linden is a beautiful tree and deserves the notice of the tree planter. In addition to many other valuable qualities which they possess, their flowers yield a delicate perfume.

**T. Americana.** AMERICAN LINDEN OR BASSWOOD.—A rapid growing, large sized, beautiful native tree, with very large leaves and fragrant flowers.

**T. E. Var. Alba Pendula.** WHITE-LEAVED WEEPING LINDEN.—A beautiful tree with large foliage and slender, drooping shoots. One of the finest of the Lindens.

**ULMUS. Elm.**

**U. Americana.** AMERICAN WHITE OR WEEPING ELM.—This is the noble spreading and drooping tree of our own forests, than which there is no finer tree for street and park planting.

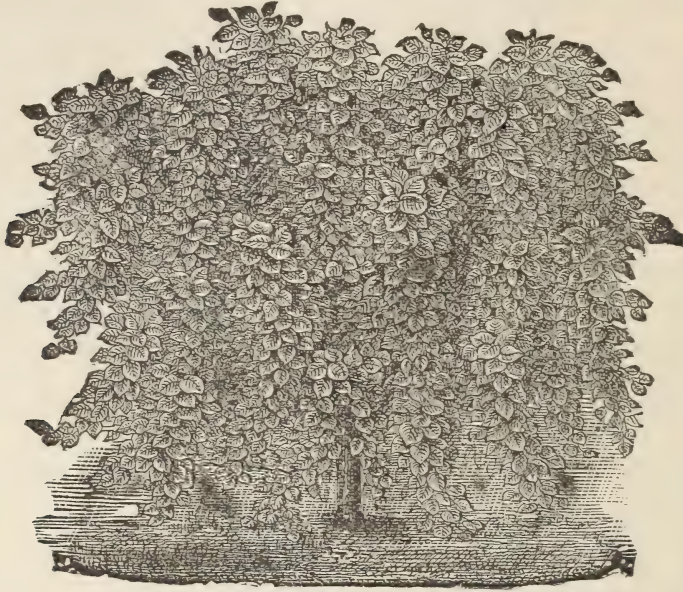
**U. Campestris.** ENGLISH ELM.—An erect, lofty tree, of rapid, compact growth, with smaller and more regular cut leaves than those of the American, and darker colored bark. The branches project from the trunk almost at right angles, giving the tree a noble appearance.

**U. Fulva.** RED OR SLIPPERY ELM.—Of medium size and straggling, open head.

**U. Var. Urticifolia.** NETTLE-LEAVED ELM.—A rapid-growing, handsome variety, with long serrated and undulating leaves; unique and beautiful.

**U. F. Var. Pendula.** WEEPING SLIPPERY ELM.—A variety of luxuriant growth and elegant drooping habit. Its branches shoot upward at first, then bend in graceful curves toward the ground. It also retains its foliage much longer than other elms.

**U. Var. Camperdown Pendula.** CAMPERDOWN WEEPING ELM.—Grafted six to eight feet high, this forms one of the most picturesque drooping trees. It is of rank growth, the shoots often making a zigzag growth outward and downward of several feet in a single season. The leaves are large, dark green and glossy, and cover the tree with a luxuriant mass of verdure.



CAMPERDOWN WEEPING ELM.

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## EVERGREENS.

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WHITE SPRUCE.

Evergreens, nursery grown, transplant as easily as any class of trees. Young trees, or those of moderate or small size, are the most certain and profitable to remove. Thorough culture and mulching, are very useful, especially in dry seasons. Early spring planting we have found the best, but they can safely be removed in wet seasons quite late, or until the new shoots are started. In planting, tramp the earth firmly (but carefully) on roots. The importance of this can scarcely be overstated. In transplanting, the roots should never be exposed to the sun and air a **single minute**. Evergreens are most superb for screens or wind-breaks around buildings, orchards and stock corrals. Norway Spruce, White and Scotch Pine, Red Cedar and Arbor Vitæ, are all admirable for that purpose. The last two for low screens should be planted eighteen inches apart, and clipped twice each year while young, in June and August. For high screens plant two or more rows, ten or twelve feet apart, twelve feet in the row, each tree opposite the center of the

space in the next row. Evergreens should be allowed to branch out near the ground. Pruning can be done before they start in the spring, and to thicken up evergreens rapidly, clip off the ends of the young succulent shoots while they are yet soft and tender.

## ABIES. Spruce and Hemlock.

**A. Alba.** WHITE SPRUCE.—A native tree of medium size, varying in height from 25 to 50 feet, of pyramidal form, foliage silvery-gray, and bark light colored. Very hardy and valuable. See cut.

**A. Excelsa.** NORWAY SPRUCE.—From Europe. An elegant tree, extremely hardy, of lofty, rapid growth, and pyramidal form. The branches assume a graceful, drooping habit, when the tree attains 15 or 20 feet in height. One of the most popular evergreens for planting, either as single specimen trees, or in masses for effect or shelter. It is one of the best evergreen hedge plants.

**A. Canadensis.** HEMLOCK SPRUCE.—A remarkably graceful and beautiful native tree, with drooping branches and delicate dark foliage like that of the Yew; distinct from all other trees. It is a handsome lawn tree and makes a highly ornamental hedge.

**A. Pungens.**—COLORADO BLUE SPRUCE.—Known for a time under the following names: *Abies Menziesii*, *Abies Menziesii Parryana*, and *Abies Engelmani*. One of the hardiest and most beautiful of all the spruces; in form and habit similar to the White Spruce; foliage of a rich blue or sage color; an important acquisition.

**A. Douglasii.** DOUGLAS SPRUCE.—From Colorado. Large, conical form; branches spreading, horizontal; soft foliage, resembling hemlock.

**A. Concolor.**—From Colorado; a beautiful tree with a bright foliage of silver and green and purple in varied contrast.

**A. Balsamea.** BALSAM FIR.—A very erect, regular, pyramidal tree, with dark green sombre foliage. Grows rapidly and is very hardy.



WHITE OR WEYMOUTH PINE.

## PINUS. Pine.

**P. Sylvestris.** SCOTCH PINE OR FIR.—A native of the British Islands. A fine, robust, rapid growing tree, with stout, erect shoots, and silvery green foliage; very hardy; valuable for shelter.

**P. Strobus.** WHITE OR WEYMOUTH PINE.—The most ornamental of all our native pines; foliage light, delicate or silvery-green. Flourishes in the poorest light sandy soil. Very valuable.

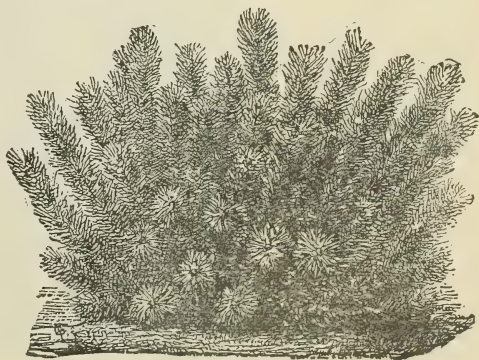
**P. Montana.**—A dwarf variety, foliage dense, and a rich dark green; perfectly hardy.

**P. Ponderosa.** CALIFORNIA PINE.—Rapid growing and somewhat resembles the Austrian Pine; hardy.

## JUNIPERUS. Juniper.

**J. Var. Reevesi.** A beautiful form of the Chinese. Tree of fine habit, with the branches somewhat drooping and spreading. Exceedingly hardy and very ornamental.

**J. c. Var. Hibernica.** IRISH JUNIPER.—A distinct and beautiful variety of erect, dense,



MONTANA.

conical outline, resembling a pillar of green; very desirable.

**J. Sabina.** SAVIN JUNIPER.—A dwarf, spreading shrub, with trailing branches. Thrives in the poorest soils. Very suitable for rock work. This is the finest plant for low hedging that can be found for the Northwest. It is the lowest growing of all the evergreens—never attaining a greater height than four or five feet. The foliage is of a rich dark green, very fine and compact. It never sunburns or turns brown in the winter. It can be sheared very closely and kept down low. On this account it is especially desirable for borders, roads or paths through private grounds or flower gardens, etc. It is especially desirable for cemetery purposes—as a border for a lot—for here it can be kept very low by close shearing and simply outlines the lot by a border of living green. It is very easy to make live, as it has many fibrous roots, and with good care given the first year or two in cultivating or mulching, it will take care of itself after that, and only needs pruning every year to keep it in shape. Experience on our own grounds has demonstrated fully its desirability. As a low specimen evergreen for a small lawn, or for a clump or group on large grounds, it is an acquisition, for its rich dark green gives variety to the lighter color of the other evergreens.

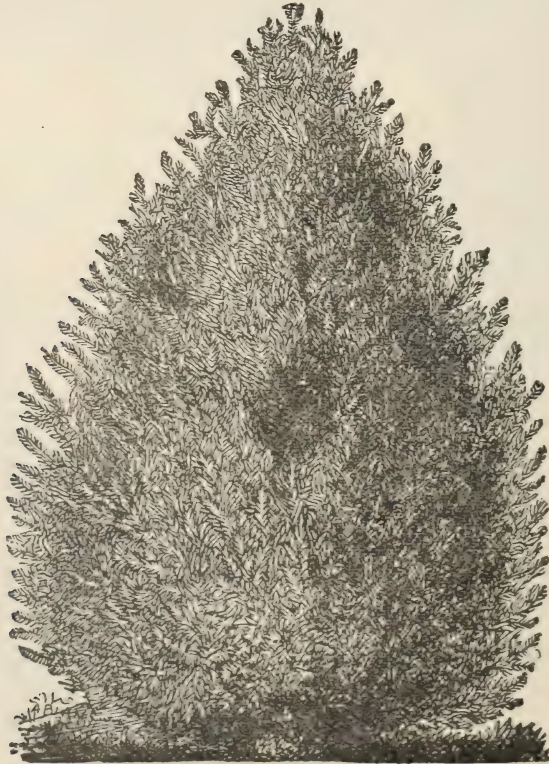
**J. Virginiana.** RED CEDAR.—A well known American tree; varies much in habit and color of foliage, some being quite stiff, regular and conical, and others loose and irregular. It makes a fine ornamental hedge plant.

### THUYA. Arbor Vitæ.

**T. Occidentalis.** AMERICAN ARBOR VITÆ.—A native tree known as White Cedar. Excellent for screens and hedges and makes a fine tree on the lawn.

**T. Var. Pyramidalis.** PYRAMIDAL ARBOR VITÆ.—Very upright, same habit as Irish Juniper; growth very dense, with rich, dark, luxuriant foliage; to our fancy far surpassing any of the juniper family, while its superior hardiness entitles it to a place in every yard or lawn.

**T. Var. Siberica.** SIBERIAN ARBOR VITÆ.—Of slow, compact, perfectly hardy growth, and beautiful form. Most esteemed ornamental variety.



SIBERIAN ARBOR VITÆ.



## HEDGING.

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Hedges of evergreens for screens and ornament are very desirable and valuable; also defensive hedges for fences are excellent where they can be grown. We recommend the following for

### SCREENS AND SHELTER.

Arbor Vitæ, White Spruce, Norway Spruce, White Pine and Scotch Pine. These may also be made very ornamental by severe pruning.

### ORNAMENTAL HEDGES.

Arbor Vitæ, Juniper Savin, and Purple Berberry. The Juniper Savin is particularly desirable for a low hedge. It is a beautiful green and can be trimmed so as to make it very compact. Evergreens should always be trimmed so as to be broader at the base than at the top, or else the top will shade the under branches and cause them to drop off.

### HEDGES FOR FENCING.

Osage Orange and Honey Locust are the best. They are well known and easily raised.

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## FOREST TREES FOR TIMBER CLAIMS.

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A large and growing demand for stock for timber claims exists on the treeless prairies. We are prepared to meet this in a satisfactory manner. Of the trees within reach, the department accept Cottonwood, white or gray Willow, Ash, Box Elder, Soft Maple, Hard Maple, Walnut, Butternut, Pines, Spruce and Balsam.

The timber culture law requires five acres of land to be broken within one year from date of filing. Within the second year from filing, this five acres must be cultivated and a second five acres broken. Within the third year from filing, the first five acres must be planted to trees, seeds or cuttings, at the rate of 2,700 trees on each acre, and the second five acres cultivated. Within the fourth year from filing, the entire ten acres must be planted to trees, seeds or cuttings, making a total of 27,000 trees on the entire ten acres, and the fifth, sixth, seventh and eighth years the ten acres must be cultivated, at the end of which time a patent will be issued if claimant can show 675 living and thrifty trees on each acre, 6,750 in all.

In case through any effect of climate the trees, seeds, or cuttings fail to grow, claimant is permitted to replant the following year, it being desirable that he make an affidavit, in proper form, setting forth that he planted said trees, seeds or cuttings in accordance with law, and that failure did ensue through the effects of climate, and that he place this affidavit on file in the land office in which he made his original filing. This is not required by law, but is a wise precaution, and might prevent a contest for the claim for reason of non-compliance with the law. Great care should be exercised in planting, as this is one of the most important parts of the entire job. After removing the crop in the fall previous to planting, plow the land deep, harrow down thoroughly, and the law contemplates trees being planted four feet apart in rows four feet from each other. On some accounts it is preferable to plant the rows eight feet apart, and the trees or cuttings two feet apart in the rows, the effect being the same, that is, putting the same number of trees upon the land.

By planting in rows eight feet apart, you have the use of half the land for crops, and the claim will receive better attention if the land is producing a crop. The best crop to plant is a low growing variety of corn. This will give the trees cultivation best adapted to their wants, and the standing stubble will collect and hold in winter the snow—nature's own protection. Again, in thinning

the trees out to eight feet apart each way, to secure the number demanded by law, some judgment can be used in making selection of the most thrifty and promising to be left standing. Seedlings or cuttings should be planted in the spring, when land is in good condition for corn planting. Set with a spade or dibber, setting firmly into the earth and packing carefully. The seedling should be set a little deeper than it stood in the ground before. The cutting should have one bud left out of the ground, then cultivate thoroughly as you would corn. Follow this up until the middle of July each year, and you will have a grove that will be worth a hundred times its cost and a farm that is equivalent to a fortune, to the possessor. A strip of land, at least ten rods wide, well cultivated and kept free from grass and weeds, should surround your groves to protect from prairie fires.

## ORNAMENTAL DECIDUOUS SHRUBS.

A beautiful effect may be produced by planting our hardy shrubs. On large lawns, they should be set with the high-growing varieties on the back or in the center and the lower-growing in front or around. The Lilacs—purple and white—with Weigelas and Syringas make a beautiful group. The Tartarian Honeysuckle—pink and white,—the Hydrangea Paniculata Grandiflora, which is as hardy as a Snowball, are fine as specimen shrubs for the lawn—handsome when not in flower and always giving such good returns for a little care. The different Spiræas are especially desirable for making the season complete in blooming.

With regard to pruning shrubs. Every plant, tree and shrub has its own habit of growth and this distinctive feature is its attraction, so do not try to prune them all alike, but simply remove dead branches and try to preserve as nearly as possible the peculiarities of habit and foliage. The Weigelas, Deutzias and Syringas (Mock Orange) flower in the wood of the preceding year's growth; hence these shrubs should not be pruned in the winter or spring, but after they are through flowering, when the old wood should be shortened or cut out, thus promoting the growth of the young wood, which is to flower another year.

Spiræas, Lilacs, Altheus and Honeysuckles may be trimmed during winter or early spring a very little, but it is a better rule to trim **all** shrubs after they are through flowering.

The Hydrangea Paniculata Grandiflora should be severely cut back and trimmed early in spring.

### BERBERIS. Berberry.

The Berberries are a most interesting family of shrubs, varying in size from two to six feet high, rich in variety of leaf, flower and habit. Their showy orange and yellow flowers in May or June are succeeded by bright and various colored fruit; very ornamental in the autumn and winter.



FRUIT OF THE BERBERRY.

**B. Canadensis.** AMERICAN BERBERRY.—A native species, forming a shrub or low tree with handsome, distinct foliage and yellow flowers from April to June, succeeded by red berries.

**B. Var. Purpurea.** PURPLE-LEAVED BERBERRY.—An interesting shrub growing three to five feet high, with violet purple foliage and fruit; blossoms and fruit beautiful; very effective in groups and masses or planted by itself.

### CALYCANTHUS. Sweet-scented Shrub.

**C. Floridus.** CALIFORNIA ALLSPICE.—The wood is fragrant, foliage rich, flowers of a rare chocolate color, having a peculiar, agreeable odor. They blossom in June and at intervals afterwards.

**CLETHRA.**

**Clethra Alnifolia.**—This is a new and beautiful shrub. It is perfectly hardy, succeeding in any soil. Blossoms pure white; very fragrant; blooms in the autumn.

**CORNUS. Dogwood.**

Valuable shrubs when planted singly or in groups or masses, some distinguished by their elegantly variegated foliage, others by their bright colored bark.

**C. Sanguinea.** RED-BRANCHED DOGWOOD.—Very conspicuous in winter. The bark is blood red.

**C. Var. Elegantissima Variegata.**—One of the finest variegated shrubs; leaves broadly margined with white.

**Siberica Foliis Albo-Marginatis.** RED SIBERIAN DOGWOOD.—Silver margined foliage; bright red bark in winter. This and *Sanguinea* make a very effective contrast when planted together.



CLETHRA ALNIFOLIA.

**DEUTZIA.**

We are indebted to Japan for this valuable genus of plants. Their hardihood, fine habit, luxuriant foliage and profusion of attractive flowers, render them the most beautiful, and deservedly the most popular of flowering shrubs at the present time. The flowers are produced the latter part of June in racemes four to six inches long.

**D. Crenata Var. Flore Pleno.** DOUBLE FLOWERING DEUTZIA.—Flowers double; White tinged with rose. One of the most desirable flowering shrubs in cultivation. See cut.

**D. Gracilis.** SLENDER BRANCHED DEUTZIA.—A charming species of dwarf habit introduced from Japan by Dr. Siebold. Flowers pure white. Fine for pot culture, as it flowers freely in a low temperature in the winter. The first to flower. About the middle of June.

**DIERVILLA. Weigela.**

Another valuable genus from Japan, introduced as late as 1843. Shrubs of erect habit while young, but gradually spreading and drooping as they acquire age. They produce in June and July superb large trumpet shaped flowers, of all shades and colors, from pure white to red. In borders and groups of trees they are very effective, and for margins the variegated leaved varieties are admirably suited, their gay-colored foliage contrasting finely with the green of other shrubs. They flower after the Lilacs in June.

**D. Arborea Grandiflora.**—A variety of vigorous habit and erect growth; foliage very large; flowers long and tube-shaped, of a sulphur white or pale yellow, changing to pale rose. Flowers about two weeks after the others.



DOUBLE FLOWERING DEUTZIA.

**D. Candida.** WHITE-FLOWERED WEIGELA.—A valuable variety. All white varieties heretofore known have been lacking in some important characteristic. Hortensis Nivea, the best and only really white sort, is a poor grower and difficult to propagate. Other so-called white sorts have flesh colored flowers; so that the introduction of Candida supplies along felt want. It is of vigorous habit, an erect grower, becoming in time a large sized shrub. Flowers pure white and produced in great profusion in June, and the plants continue to bloom through the summer, even until Autumn.

**D. Rosea.**—Rose colored; from China; hardy, and bears the most profuse, light, rosy trumpet flowers in May. In every way the most superb shrub of its season.

**D. Hybrida P. Duchartre.**—Flowers clear amaranth.

**D. Var. Venosa Variegata.**—A dwarf grower; variegation light yellow, changing to white.

**D. Chameleon.**—A variety of robust habit, with flowers of a deep rose color.

### EUONYMUS. Strawberry or Spindle Tree.

The Euonymus are all highly ornamental in autumn, when covered with showy fruit.

**E. Europæus.** EUROPEAN EUONYMUS.—Fruit rose colored.

**E. Var. Fructu Albo.** WHITE-FRUITED EUONYMUS.

**E. Latifolius.** BROAD-LEAVED EUONYMUS.—Leaves turn to a purplish red in autumn. Very ornamental.

### FORSYTHIA. Golden Bell.

These are pretty shrubs of medium size. All natives of China and Japan. The flowers are drooping, yellow, and appear very early in the spring before the leaves. The best very early flowering shrub.

**F. Fortuneii.** FORTUNE'S FORSYTHIA.—Growth upright; foliage deep green; flowers bright yellow.

**F. Viridissima.**—A fine, hardy shrub introduced by Mr. Fortune. Leaves and bark deep green; flowers deep yellow, very early in the spring.

### HYDRANGEA.

The native species are handsome shrubs of medium size, with fine, large leaves, generally of a light green color, and perfectly hardy. The introductions from Japan and China are particularly interesting and valuable. *H. Paniculata Grandiflora* is remarkable in foliage and flower, and being perfectly hardy is of great value. The Japanese varieties, like the *H. Hortensia*, require protection in winter. They should be grown in pots or boxes and wintered in the cellar, and in summer placed along walks in the shade of trees. *H. Otaksa* is especially adapted to this purpose.

**H. Var. Otaksa.**—Foliage a beautiful deep green color. The plant produces immense trusses of rose colored flowers in profusion in July; free blooming.

**H. Var. Rosea.**—A red flowering variety of Thomas Hogg. Possesses same freedom of growth and flowering.



WEIGELA ROSEA.



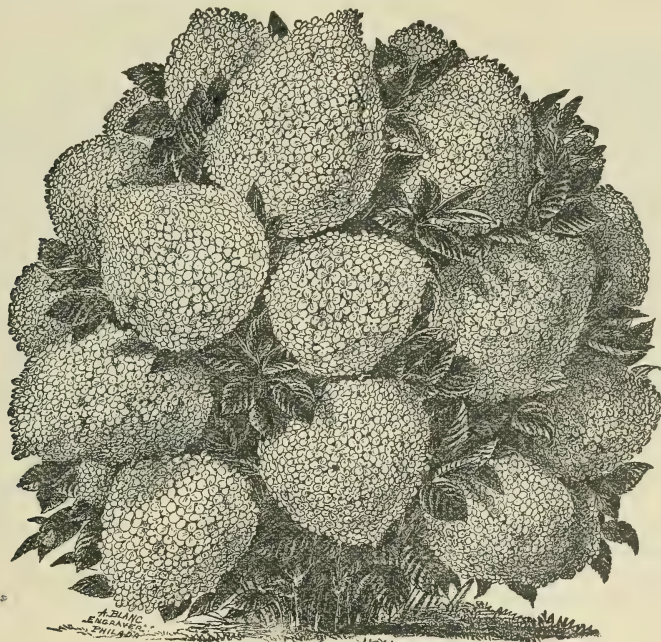
OTAKSA.

**H. Ramulis Coccineis.**—A novelty with reddish branches and flowers.

**H. Var. Speciosa.**—This differs from Alba Variegata by having the silvery variegation along the center of the leaf with an occasional spot towards the edge; very pretty.

**H. Var. Thomas Hogg.**—This belongs to the Hortensia section of the family, but it is a far more free and abundant bloomer than any other. For the florist and for all decorative purposes it is invaluable. The flowers are of the purest white, of very firm texture, and are produced from July to September. It is as hardy as the old Hortensia. Requires some protection in winter.

**H. Paniculata Grandiflora.** LARGE PANICLE-FLOWERED HYDRANGEA.—A fine shrub growing from eight to 20 feet high; flowers white in great pyramidal panicles a foot long and produced in August and September, when very few shrubs are in flower; one of the finest flowering shrubs. This is the *Hydrangea Deutziaefolia* of some nurseries.



H. PANICULATA GRANDIFLORA.

**H. Quercifolia.** OAK-LEAVED HYDRANGEA.—A hardy, native shrub, remarkable for its large leaves, which are lobed like those of the oak, and downy beneath; flowers cream colored, in medium sized panicles. August. Very desirable.

### LONICERA. Upright Honeysuckle.

The following species and varieties are of erect shrubby habit. The climbing sorts will be found under the head of Climbing Shrubs.

**L. Alberti.**—Violet, bell-shaped flowers; leaves narrow. A very hardy variety. Somewhat creeping.

**L. Cærulea.**—Of shrubby growth; flowers cream colored, fragrant. May.

**L. Fragrantissima.** FRAGRANT UPRIGHT HONEYSUCKLE.—A spreading shrub with deep green foliage and very fragrant, small flowers, which appear before the leaves; foliage almost evergreen. Most desirable.

**L. Tartarica.** TARTARIAN HONEYSUCKLE.—Pink flowers which contrast beautifully with the foliage. This and Grandiflora appear to fine advantage planted together. June.

**L. Var. Alba.** WHITE TARTARIAN HONEYSUCKLE.—Forms a high bush, with creamy-white, fragrant flowers. May and June.

**L. Var. Grandiflora.** PINK-FLOWERING HONEYSUCKLE.—A beautiful shrub; very vigorous and producing large, bright red flowers striped with white in June.

**L. Var. Grandiflora Alba.**—A variety of upright habit, with very large, pure white flowers.

### PHILADELPHUS. *Syringa* or Mock Orange.

The *Syringa* is an invaluable shrub. Of vigorous habit, very hardy, with large, handsome foliage, and beautiful, white flowers, produced in the greatest profusion in the blossoming season. It merits a prominent place in all collections of shrubbery. Most of the varieties, except those of dwarf habit, form large sized shrubs, twelve to fifteen feet high. They can, of course, be kept smaller by pruning. The dwarf sorts do not yield many flowers, but are such pretty, compact plants as to be very useful where small shrubs are desired. All the varieties flower in June after the Weigela. By planting the late flowering sorts the season may be considerably extended.

**Ph. Coronarius.** GARLAND SYRINGA.—A well known shrub, with pure white, highly scented flowers. One of the first to flower.

**Ph. Var. Flore Pleno.** DOUBLE-FLOWERING SYRINGA.—A variety with partially double, very fragrant flowers.

**Ph. Dianthiflorus Flore Pleno.**—A dwarf variety with double, cream-colored, fragrant flowers; forms a handsome low shrub; does not flower much.

**Ph. Gordonianus.** GORDON'S SYRINGA.—A vigorous grower and profuse bloomer; flowers slightly fragrant and bloom late, and valuable on that account.

**Ph. Grandiflorus.** LARGE-FLOWERING SYRINGA.—Has very showy, large flowers, slightly fragrant. Branches somewhat straggling.

**Ph. G. Var. Speciosissimus.**—Of dwarf habit, forming bushes about three feet in height and covered with very large, white, sweet scented flowers. Distinct and fine.

**Ph. Multiflorus Plenus.**—Flowers almost double; fragrant, creamy white, in long racemes; habit elegant; a profuse bloomer.

**Ph. Yokohama.**—A white and very fragrant species from Japan, of upright, compact habit; foliage plaited. Makes a beautiful shrub.



GORDON'S SYRINGA.

### PRUNUS. Plum.

Under this heading are embraced some of the most charming early spring flowering shrubs. *Prunus Triloba*, or the double-flowered plum, as it is commonly called, and the double-flowered Almonds, produce in remarkable profusion perfectly double, finely formed flowers of most attractive colors. At the blossoming season each little tree appears like one mass of bloom, forming a most beautiful and interesting object, whether planted singly upon the lawn or in groups. As the Almond and Plum flower at the same time, they can be massed very effectively. Both are hardy and of fine habit.

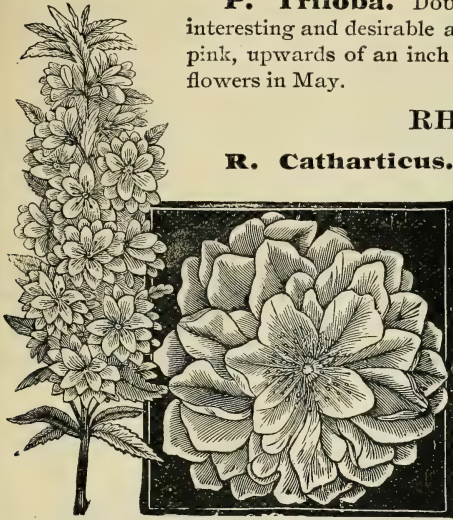
**P. Japonica Flore Albo Pleno.** (Erroneously, *Amygdalus Pumila Alba*.) DWARF DOUBLE WHITE-FLOWERING ALMOND.—Produces beautiful, double white flowers in May.

**P. Japonica Flore Rubro Pleno.** (Erroneously, *Amygdalus Pumila*.) DWARF DOUBLE RED-FLOWERING ALMOND.—A beautiful, small shrub bearing in May, before the leaves appear, an abundance of small, double rose-like flowers closely set upon the twigs.

**P. Pissardi.**—The finest purple leaved small tree or shrub of recent introduction. The young branches are a very dark purple; the leaves when young are lustrous crimson, changing to a dark purple, and retain this beautiful tint until they drop, late in autumn; no other purple leaved tree or shrub retains its color like this. It transplants easily and is worthy of wide dissemination. Flowers small, white, single.

**P. Tomentosa.**—A very pretty species from Japan. It has beautifully plaited leaves and bears in May, small, inconspicuous flowers, which are followed by small, red fruit resembling currants. Forms a very handsome dwarf shrub.

**P. Triloba.** DOUBLE-FLOWERING PLUM.—Native from China. A highly interesting and desirable addition to hardy shrubs; flowers double, of a delicate pink, upwards of an inch in diameter, thickly set on the long, slender branches; flowers in May.



TRILOBA.

**RHAMNUS. Buckthorn.**

**R. Catharticus.** PURGING BUCKTHORN.—The popular hedge plant.

**RHUS. Sumach.**

**R. Cocinus.** PURPLE FRINGE, OR SMOKE TREE.—Curious fringe or hair-like flowers.

**R. Glabra Var. Laciniata.** CUT-LEAVED SUMACH.—Leaves fern-like, turning to a rich red in autumn.



GLABRA VAR. LACINIATA.

**RIBES. Currant.**

**R. Alpina.** YELLOW-FLOWERING CURRANT.—Flowers yellow and very fragrant. A desirable shrub.

**R. Gordonianum.** GORDON'S CURRANT.—Flowers crimson and yellow in May.

**R. Sanguineum.** CRIMSON-FLOWERING CURRANT.—Fragrant; very nice.

**SAMBUCAS. Elder.**

These are showy large shrubs, quite ornamental in flowers, fruit and foliage. They blossom in June. The plants should be kept in good shape by a frequent use of the pruning knife.

**S. Nigra.** BLACK-BERRIED ELDER.—A native of Europe, of medium size, with purplish black berries in September.

**S. Pubens.**—The most ornamental of the species, which has large, loose panicles of bright scarlet berries. Very fine for the lawn.

**S. Var. Aurea.** GOLDEN ELDER.—A handsome variety with golden yellow foliage. A valuable plant for enlivening shrubberies.

**S. Var. Heterophylla.** FERN-LEAVED ELDER.—Luxuriant in growth, with deep and delicately cut foliage. Fine.

**S. Var. Laciniata.** CUT-LEAVED ELDER.—A valuable variety with elegantly divided leaves; one of the best cut-leaved shrubs. See cut.

**SPIRÆA. Meadow-Sweet.**

The Spiræas are all elegant, low shrubs, of the easiest culture, and their blooming extends over a period of three months.

**S. Arguta.**—Of dwarf habit. Flowers clear white. The best very early flowering white Spiræa. Early May.

**S. Ariæfolia.** WHITE-BEAM LEAVED SPIRÆA.—An elegant species from Northwest America; habit dense and bushy; plant entirely covered with greenish white blossoms in July.



CUT-LEAVED ELDER.



DOUBLE FLOWERING PLUM LEAVED SPIRÆA

**S. Var. Rosea.**—A slender grower, with panicles of rose-colored flowers.

**S. Foxii.**—Resembles Callosa, but corymbs of flowers immense, sometimes measuring a foot across.

**S. Opulifolia Aurea.** GOLDEN-LEAVED NINE BARK.—An interesting variety, with golden yellow tinted foliage, and double white flowers in June. Very conspicuous.

**S. Paniculata Rosea.**—A vigorous grower with cymes of rose-colored flowers. July.

**S. Prunifolia Flore Pleno.** DOUBLE-FLOWERING, PLUM-LEAVED SPIRÆA.—A beautiful shrub from Japan with pure white blossoms like white daisies, in May. Keeps in flower a long time and justly merits to be placed in the front rank among flowering shrubs. See cut.

**S. Reevesii, or Lanceolata.** LANCED-LEAVED SPIRÆA.—A charming shrub with narrow pointed leaves and large round clusters of white flowers that cover the whole plant and render it exceedingly effective. Blooms in June.

**S. Billardi.** BILLARD'S SPIRÆA.—Rose-colored; blooms nearly all summer.

**S. Blumei.**—Has large panicles of deep rose-colored flowers. June and July.

**S. Crenata.**—Dwarf in habit. Flowers dull white; free bloomer. June.

**S. Callosa.** FORTUNE'S SPIRÆA.—Has large panicles of deep rosy blossoms; grows freely and blooms nearly all summer. Fine.

**S. Var. Alba.** FORTUNE'S DWARF WHITE SPIRÆA.—A white flowering variety, of dwarf, bushy, symmetrical form. Keeps in flower all summer. A valuable small shrub.

**S. Var. Atrosanguinea.**—In growth and habit this is similar to Callosa; flowers a shade darker. June and July.

**S. Var. Superba.**—Of dwarf habit; greenish white flowers in August.

**S. Var. Semperflorens.**—Habit dwarf; red flowers in corymbs; a continuous bloomer.

**S. Douglasi.** DOUGLAS' SPIRÆA.—Has spikes of beautiful deep rose-colored flowers in July and August.

**S. Eximia.**—Of dwarf habit; flowers bright rose color. July.

**S. Floribunda.** FREE-BLOOMING SPIRÆA.—Flowers white; an abundant bloomer.

**S. Fontenaysii.**—Vigorous and a very free bloomer. Large panicles of greenish white flowers. Latter part of June.



SPIRÆA REEVESII.



**S. Var. Robusta.**—A superior variety of the Lanceolata. Of more vigorous growth, hardier and flowers much larger. Blooms in June and September. See cut.



ROBUSTA.

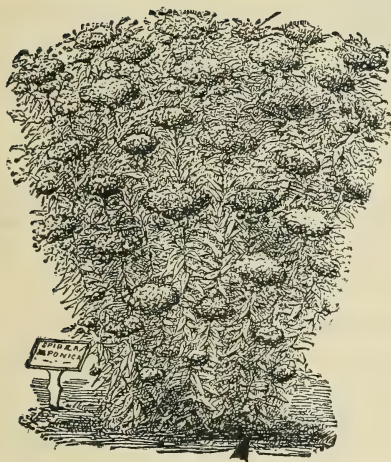
**S. Rotundifolia Alba.**—Leaves roundish; flowers white. A distinct variety.

**S. Salicifolia.** WILLOW LEAVED SPIRÆA.—Long, narrow, pointed leaves and rose-colored flowers in June and July.

**S. Sorbifolia.** SORB-LEAVED SPIRÆA.—A vigorous species with leaves like those of the Mountain Ash, and long, elegant spikes of white flowers in July.

**S. Species Japonica.** (Bumalda.)—A very handsome species from Japan. Habit dwarf but vigorous; foliage narrow; flowers rose-colored, appearing in great profusion during midsummer and autumn. See cut.

**S. Van Houttei.**—Large, white flowers; free blooming; a very hardy and beautiful variety.



SPIRÆA BUMALDA.

## SYRINGA. Lilac.

Well known, beautiful shrubs, indispensable in every collection. They flower in May.

**S. Josikæa.** JOSIKA'S OR CHIONANTHUS-LEAVED LILAC.—From Transylvania. A fine, distinct species of tree-like growth, with dark, shining leaves and purple flowers in June, after the other Lilacs have done flowering. Esteemed particularly for its fine habit and foliage.

**S. Persica.** PERSIAN LILAC.—Native of Persia. From four to six feet high, with small foliage and bright purple flowers.

**S. Var. Alba.** WHITE PERSIAN LILAC.—Delicate white fragrant flowers, shaded with purple. A superb variety.

**S. Siberica Alba.** SIBERIAN WHITE LILAC.—A vigorous grower; foliage small and narrow; flowers white with a bluish tint. Fragrant and free flowering.



SPIRÆA VAN HOUTTEI.

**S. Verschaffeltii.** VERSCHAFFELT'S LILAC.—Dark red in bud, lilac when open; large compact panicle; distinct.

**S. Vulgaris.** COMMON LILAC.—Bluish purple flowers.

**S. Var. Alba.** COMMON WHITE LILAC.—Cream-colored flowers.

**S. Var. Flore Pleno.** DOUBLE PURPLE LILAC.—Has a double row of petals; valuable for cut flowers; very neat and pretty.

**S. Var. Lemoinei Flore Pleno.** LEMOINE'S DOUBLE-FLOWERED LILAC.—Panicles large; flowers reddish purple, semi-double; fine.

**S. V. Var. Nana.** DWARF LILAC.—Distinct, large and compact spike of dark reddish purple, fragrant flowers.

### NEW VARIETIES OF LILACS.

**S. Villosa.**—A new species from Japan. Large, branching panicles; flowers light purple in bud, white when open; fragrant; foliage resembles that of the White Fringe. Especially valuable as its flowers appear two weeks after those of other Lilacs.

**S. Var. Frau Dammann.**—This is the best white Lilac in our collection. The panicle or truss is immense; flowers of medium size and pure white. This and Ludwig Spæth are the two best Lilacs of recent introduction.

**S. Var. Ludwig Spæth.**—Panicle long; individual flowers large, single, dark purplish red; distinct; superb. The finest of its color.

**S. Var. President Grevy.**—A beautiful blue; individual flowers very double and very large, measuring three-quarters of an inch in diameter; the panicle is magnificent and measures eleven inches in length and five inches across. One of the finest Lilacs.

### TAMARIX. Tamarisk.

These are very beautiful shrubs with small leaves, somewhat like those of the Juniper, and delicate, small flowers in spikes. They are invaluable for planting where scarcely anything else will grow.

**T. Africana.**—Handsome foliage; upright habit; flowers in May.

### VIBURNUM. Arrow Root.

**V. Var. Rugosum.** ROUGH-LEAVED VIBURNUM.—Has a larger and rougher leaf than Lantana, and terminal cymes of white flowers in May. Very ornamental in foliage and fruit.

**V. Opulus.** HIGH OR BUSH CRANBERRY.—Both ornamental and useful. Its red berries resembling Cranberries, esteemed by many, hang until destroyed by frost late in the fall; resembles the Snowball in wood and foliage.

**V. Var. Sterilis.** GUELDER ROSE. SNOWBALL TREE.—A well known, favorite shrub of large size, with globular clusters of pure white sterile flowers the latter part of May. See cut.



STERILIS.

**V. Lentago.** SHEEPBERRY.—Flowers creamy white, very fragrant; foliage a light glossy green. Growth and habit like *Pyrifolium*.

**V. Plicatum.** PPLICATE VIBURNUM.—From North China. Of moderate growth; handsome plicated leaves. Globular heads of pure white neutral flowers early in June. It surpasses the common variety in several respects. Its habit is better, foliage much handsomer, flowers whiter and more delicate. One of the most valuable flowering shrubs. See cut.



PLICATUM.

**V. Pyrifolium.** PEAR-LEAVED VIBURNUM.—A native shrub. Flowers white, fragrant; the last of all to flower, being about ten days later than the others.

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## HARDY HERBACEOUS FLOWERING PLANTS.

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This is a class of plants that is rapidly coming into favor, and the demand for them is increasing every year. The ease with which they may be grown, and the great variety of flowers and foliage, ranging over the whole growing season, make them very attractive and very desirable. Once planted, they care for themselves, if insured freedom from grass and weeds. Some of the more tender varieties may bloom better for a winter protection of litter or coarse straw.

By selecting carefully, with reference to time of blooming, a succession of flowers may be obtained during spring, summer and autumn. The majority present an attractive appearance even when not in bloom. We would call special attention to the different varieties of *Aquilegia*, *Delphinium*, *Spiræa*, *Pyrethrum*, *Plantain Lilies*, *Dicentra*, *Phlox*, *Golden Rod*, etc.

Our list is one that we can fully recommend. We are testing many other varieties, and will offer them from time to time, as they prove worthy. If any plant is desired that is not here listed, write us and we will try and furnish it.

### ACHILLEA. Yarrow or Milfoil.

**A. Millefolium Rosca.** ROSE-FLOWERED YARROW.—Rosy lilac flowers: fifteen inches. June to August.

**A. Ptarmica. Var. Fl. Pl.** DOUBLE FLOWERING SNEEZEWORT.—Of dwarf, spreading habit, with small, pure white, double daisy-like flowers; profuse bloomer; invaluable for cutting. One of the most useful border plants. August.



ANEMONE.

### ANEMONE. Wind Flower.

**A. Japonica.**—A distinct and beautiful species. Flowers two and one-half inches in diameter; bright purplish rose, with golden yellow centers; borne in great profusion from September to November. Height two and one-half feet; habit neat and compact. Very desirable and effective as a pot plant, and in lines or masses in beds or mixed borders.

**A. Var. Alba.** (Honorine Jobert).—A distinct and beautiful variety of the preceding. Flowers two and one-half inches in diameter, pure white, center golden yellow; borne in great profusion from September to November. Very desirable and effective as a pot plant, and in lines or masses in mixed borders.

### ANTHERICUM. St. Bruno's Lily.

A pretty genus with white flowers.

**A. Liliastrum.** ST. BRUNO'S LILY.—A beautiful plant with narrow grass-like foliage, and spikes of small, white, fragrant, lily-like flowers; valuable. May to August.

**A. Var. Major.** GIANT ST. BRUNO'S LILY.—Long spikes of pure white lily-like, fragrant flowers. Fine.

**A. Ramosum.**—White flowers; eighteen inches. June.

### AQUILEGIA. Columbine.

**A. Alpina.**—A native of the higher parts of the European Alps. Stems nine to eighteen inches high, bearing showy, blue flowers.

**A. Canadensis.**—Our well known native species, with scarlet sepals and bright yellow petals; easily cultivated.

**A. Olympica.**—Flowers red and yellow.

**A. Formosa Hybrida.** SYN. CALIFORNICA HYBRIDA.—The sepals and petals yellowish, tinged orange and orange red spurs; two to four feet. May to September.

**A. Glandulosa.**—A Siberian species with large white flowers, with sepals bright lilac-blue and petals white; very pretty; twelve inches. April and May.

**A. Skinnerii.**—Crimson sepals lined with light green; light green petals and long, straight crimson spurs; three feet. June to September.

### ARUNDINARIA. Ribbon Grass.

**A. Foliis Variegata.**—Valuable for edgings. Leaves striped longitudinally with green and cream color; very handsome, free growing.

### ARMERIA. Thrift, Sea Pink.

**A. Argentea.**—Small, white flowers; narrow foliage; four inches. July and August.

**A. Dianthoides.**—White, fine.

**A. Formosa.**—Narrow, grass-like leaves; white flowers in heads on long stems.

### ASCLEPIAS. Milkweed.

Fine, native plants. Flowers in terminal umbels of various colors.

**A. Incarnata.**—Flowers flesh colored; three to four feet. July.

**A. Tuberosa.**—Bright orange flowers; showy and beautiful; two feet.

**ASTER. Starwort.**

Tall, leafy perennials, blooming in the fall when flowers are scarce.

**A. Novæ Angliæ.** NEW ENGLAND ASTER.—Bluish purple; four feet.

**A. Novæ Belgii.**—Blue; three to five feet.

**ASTILBE. Japan Spiræa.**

**A. Japonica.**—Known generally as *Spiræa Japonica* or *Hoteia Japonica*. A handsome plant with small, pure white flowers, in large, branching panicles. Blooms in May, in the open air, but is cultivated chiefly for forcing in winter.

**CAMPANULA.****Bellflower. Harebell.**

An elegant genus of plants, rich in color, profuse in bloom, and of easy culture.

**C. Lamarqueii.** Pale azure; three feet; June and July.

**C. Nobilis Fl. Alba.** A large-flowered tall-stemmed Chinese kind, with creamy-white blossoms.



NEW ENGLAND ASTER.

**CLEMATIS.**

**C. Davidiana.**—Large axillary clusters of fragrant blue flowers: Three feet.

**CYPRIPEDIUM. Mocassin Flower.**

**C. Pubescens.** YELLOW MOCASSIN FLOWER OR LADIES' SLIPPER.—Flowers on leafy stems, bright yellow with long curled sepals.

**C. Spectabile.** Very handsome; a strong growing leafy stem, large flowers, with pure white inflated lip blushed crimson; one of the finest of our native flowers.



ASTILBE JAPONICA.

**DICTAMNUS, FRAXINELLA, or GAS PLANT**

A choice perennial, forming a bush about two feet high, and bearing spikes of curious red and white flowers which are fragrant.

**D. Alba.**—White; twelve to eighteen inches; June.

**D. Rubra.**—Red; twelve to eighteen inches; June.

**DICENTRA, or DIELYTRA. Bleeding Heart.**

**D. Eximea.**—Rose color; foliage fern-like; flowers all summer; valuable; twelve inches.

**D. Spectabilis.**—A handsome, most curiously formed, rosy-crimson flower, with white and blue tinged protruding stamen; one of the finest border plants; is quite hardy; well adapted for blooming in the winter. One to two feet. May and June.

**DELPHINIUM. Larkspur.**

A remarkably showy class of plants, producing magnificent spikes of flowers in midsummer. We know of no plants which will afford greater satisfaction than these. See cut.

**Pyramidal or Tall Growers.**—The tall growing variety is a stately and handsome



DELPHINIUM. LARKSPUR.

**G. Var. Flore Pleno.**—Crow-foot leaved; double flowering; one foot. July and August.

### GYPSOPHILA. Chalk Plant.

**G. Paniculata.**—A fine herbaceous plant, forming a compact bush about four feet high; flowers small, white, in large, loose panicles. Valuable for bouquets. July.

class of plants of easy cultivation; cut back to ground after the first flowering, they will flower again in August. Three feet.

**D. Cælestinum.**—Very pale blue, lavender center; four to five feet; superb. June.

**D. Formosum.**—Rich, dark blue, tinged with purple; white eye; single.

**D. Chinese.**—Low growing. Fine for cutting; blue, white and pink.

### EUPATORIUM.

#### Snake Root.

**E. Ageratoides.**—A fine species with large heads of handsome pure white, fragrant, flowers; 5 feet. June to August.

### FUNKIA. Plantain Lily.

A very interesting and beautiful genus, with luxuriant foliage and handsome lily-like flowers. See cut.

**F. Cærulea.**—Light blue, with dark green glossy foliage; one foot. June and July.

**F. Grandiflora.**—Large blue flowers.

**F. Var. Alba.**—Pure white fragrant flowers in summer.

**F. Var. Fol. Aurco Var.**—Leaves variegated with yellow.

**F. Japonica.**—Lavender; 2 feet. August and September.

**F. Sieboldiana.**—Silver-gray foliage; one of the most distinct; light purple flowers.

### GERANIUM. Crane's Bill.

(Not Pelargonium or Scarlet Geranium.)

**G. Ibericum.**—Bluish purple; one foot. July and August.

**G. Prætense.**—Lilac purple; crow-foot leaved; one foot. July and August.



A GROUP OF FUNKIAS.

**HEMEROCALLIS. Day Lily.**

Fine tall-growing plants, with large lily-shaped, sweet scented flowers.

**H. Dumortierii.**—Bright orange colored flowers in summer. 2 feet.

**H. Flava.** YELLOW DAY LILY.—One of the finest, hardy plants. Flowers large, in clusters, golden yellow, and very fragrant; plant vigorous; 3 feet. July.

**H. Fulva.**—Orange flowers in large clusters; 2 feet. July.

**HEPATICICA. Liver Leaf.**

Very effective and charming early spring flowering perennials.

**H. Triloba.** ROUND-LOBED HEPATICA.—Flowers blue purple or almost white. Should be planted in clumps.

**IRIS. Iris, or Fleur de Lis.**

**I. Apollon.**—Golden yellow, striped with plum color; 18 inches. June.

**I. Atropurpurea.**—Purple. One of the best.

**I. Aurea.**—Clear golden yellow. Fine.

**I. Eugene Sue.**—Creamy white with purple spots and stripes; 18 inches. June.

**I. Falcata.**—Yellow, tinged with purple and purple stripes; 2 feet. June.



IRIS.



JAPAN IRIS.

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**LINUM. Flax.****L. Perenne.** PERENNIAL FLAX.—Fine blue flowers. July.**LYCHNIS. Lamp Flower.**

Very effective plants in the mixed border.

**L. Chalcedonica.** SCARLET LYCHNIS.—Brilliant scarlet; large truss; three feet. July and August.**LYSIMACHIA. Loosestrife.****L. Clethroides.**—Long, dense spikes of starry white flowers; 2 feet. July.**L. Nummularia.** MONEYWORT.—Creeping habit; small, yellow, bell-shaped flowers in June, fine for hanging baskets and covering rock-work.

PHLOX SUBULATA.

**I. Flava.**—Pale yellow; fine; 2 feet. June.**I. Florentina.**—White, tinged with blue and yellow; 2 feet. May.**I. Kämpferi.** JAPAN IRIS.—Flowers differ from the ordinary kinds, in being broad and flat. They exhibit a wonderful variety of colors and shades and appear later than the others. They rank among the most desirable of hardy plants; succeed best in a moist soil; 3 to 4 feet.**I. Lemon.**—White, spotted with purple, and deep purple stripes; fine; 2 feet.**I. Sampson.**—Rich golden yellow; crimson maroon veined with white; fine.**LATHYRUS. Perennial Pea.**

Very desirable climbers producing a profusion of flowers during the summer. Should be trained on a trellis.

**L. Latifolius Albiflorus.**—Pure white flowers, in clusters. Valuable for cut flowers all summer.**L. Grandiflorus.** EVER-BLOOMING PEA.—Clusters of rose-colored flowers; trailing; 3 to 4 feet; a charming plant; valuable for cut flowers. June to September.

PERENNIAL FLAX.

**PHLOX.**

These are justly esteemed as the finest of herbaceous plants. They are of dwarf habit, perfectly hardy, of very easy culture and yield a profusion of bright, showy bloom. They are hardly equalled by any other hardy plant for the decoration of the garden.

**P. Amœna.** LOVELY PHLOX.—Flowers pinkish purple, completely covering the plant in spring. One of the best early flowering species.**P. Procumbens.**—Lilac, with violet marks near the eye; three inches. May.



**P. Subulata.** MOSS PINK.—Spreading stems and narrow, moss-like leaves; flowers pinkish-purple, with a darker center, and produced in wonderful profusion in April or May.

**P. Var. Alba.**—A white flowering variety of the above. Very showy when in flower, presenting to the eye masses of bloom like sheets of snow

### PAPAVER. Poppy.

Showy perennials with large flowers of rich and striking colors.

**P. Orientale.** ORIENTAL POPPY.—Deep scarlet; large; very showy; eighteen inches. June.

### POTENTILLA. Cinquefoil.

**P. Russelliana.**—Deep red, shaded with maroon; two feet. July and August.

### PRIMULA. Primrose.

**P. Veris.** COWSLIP.—Flowers bright yellow in terminal umbels, in spring and early summer.

### PYRETHRUM. Feverfew.

A valuable class of very interesting, hardy, herbaceous plants, which only require to be set in the open border and the usual treatment of perennial plants.

**P. Roseum.**—Extremely showy and valuable as cut flowers; color changes from white to shades of rose, carmine and crimson. Sometimes called the "colored daisy."

**P. Uliginosum.**—Is one of the noblest of all tall growing, herbaceous plants, forming dense tufts, five to seven feet in height, terminated by large clusters of pure white flowers; valuable.

### RANUNCULUS. Buttercup.

These are among the best of early spring flowers, being very effective.

**R. Aconitifolius Luteo Pleno.**—Double Orange Yellow Crowfoot; two feet. May and June.

**R. Bulbosus.**—Yellow, double, handsome foliage; fifteen inches. May.

**R. Montanus.** MOUNTAIN BUTTERCUP.—Bright yellow flowers; six to nine inches. May.

### SAPONARIA. Soapwort.

**S. Ocymoides.** ROCK SOAPWORT.—A beautiful dwarf perennial, completely covered in summer with rosy pink flowers.

### SANGUINARIA. Bloodroot.

**S. Canadensis.**—One of the most desirable and handsome native plants, with roundish palmate-lobed leaves; flowers pure white in April or May.

### SOLIDAGO. Golden Rod.

**S. Cæsia.**—August. Purple stems, slender, drooping habit; flowers bright yellow.

**S. Drummondii.** (Drummond's Solidago).—September. Plant forms a graceful clump of drooping, leafy stems, with bright yellow flowers in upper axils; one of the finest.

**S. Rigida.**—Very large leaves and large flower heads; one of the showiest.

### SPIRÆA. Meadow Sweet.

Among the most ornamental and valuable of herbaceous plants, and of easy culture.

**S. Aruncus.** GOAT'S BEARD.—Large panicles of creamy-white flowers; one of the best border plants. June.

**S. Filipendula.** DROPWORT.—Large showy heads of white flowers, tinged rose; fine foliage; one to two feet. June.

**S. Var. Fl. Pl. Dropwort.**—Double white flowers; fern-like foliage; two to three feet. One of the best and most showy perennials.

**S. Humboldtii.**—Greenish flowers. June.

**S. Lobata.** QUEEN OF THE PRAIRIE.—Flowers deep rose, in large heads; of a robust habit; contrasts finely with Ulmaria fl. pl.; one foot. June.

**S. Ulmaria Fl. Pl.** DOUBLE WHITE MEADOW SWEET.—A very desirable hardy plant; two feet. June.

**S. Var. Fol. Var.**—Golden variegated foliage; a remarkably handsome plant, not appreciated as it should be.

**S. Venusta.**—Branching, feathery flowers of soft rose color; one of the finest.



POPPY.

**STATICE. Sea Lavender.**

**S. Maritima.** SEA-PINK OR THRIFT.—Rosy lilac; one of the best for edging; six inches. June and July.

**THYMUS. Thyme.**

**T. Vulgaris.** COMMON THYME.—Small lilac flowers with a robust habit, of exceedingly aromatic flavor and fragrance; six inches. June and July.

**TRADESCANTIA. Spiderwort.**

Showy, native plants, forming erect bushes eighteen to twenty-four inches in height; flowers produced in the greatest profusion all summer.

**T. Virginica.**—Blue; eighteen to twenty-four inches. May.

**T. Var. Alba.**—White; eighteen to twenty-four inches. May.

**TRILLIUM. Wake Robin.**

Very effective and showy early flowering native plants, deserving a place in every garden.

**T. Erectum.**—Maroon; six to nine inches. April.

**T. Grandiflorum.**—White; six to nine inches. April.

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## PÆONIA.

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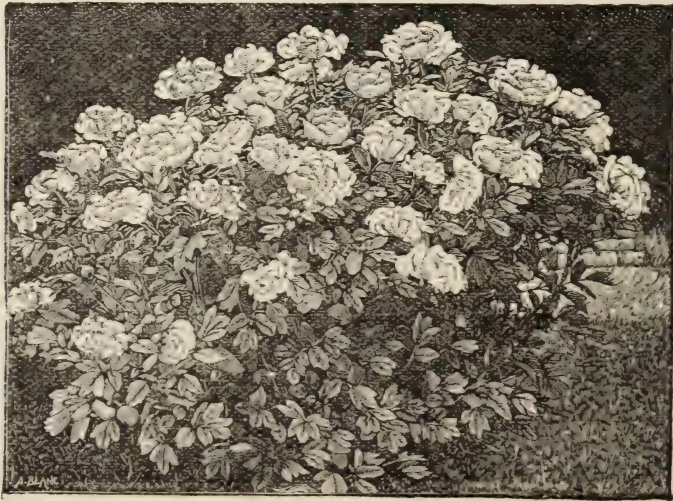
**CLASS I. PÆONIA MOUTAN. Tree Pæonies.**

**P. Banksii.** CHINESE DOUBLE BLUSH PÆONY.—Very large fragrant flowers; rosy blush, with purple center; one of the finest.

**P. Arethusa.**—Light rose, shaded with purple; large and fragrant.

**P. Extensa.**—Very large; rose, clouded with purple.

**P. Rubra Plena.**—Bright rose, almost single but fine.



TREE PÆONIA.

## CLASS II. HERBACEOUS PÆONIES.

**P. Rosea.**—Light rose color; very double; fine.

**P. Grandiflora.**—Very large. Outside petals delicate blush, center fringed yellowish; sweet and fine.

**P. Modeste.**—Deep rose, bright, showy, distinct; fine shape; very fragrant. One of the finest.

**Festiva.**—Pure white with a few marks of carmine in the center; round. One of the best. Very sweet.

**Festiva Maxima Evertsii.**—Resembles Festiva, but flowers are larger. Very fragrant. The finest grown. Pure white; center streaked with carmine.

**P. Rubra.**—Color, bright crimson with conspicuous yellow center. Beautiful in the bud and fine for cutting. Early.

**P. Delicatissima.**—Delicate fine rose; very large, full and sweet.

**P. Whittleji.**—White; center slightly yellowish; very large; cluster large; sweet; fine.



HERBACEOUS PÆONIA.

## SELECT PHLOX.

This, when properly grown, is unquestionably one of the finest autumn flowers—like the Pæony, a flower for the million. It is of vigorous habit, and produces in great profusion during a long season, flowers of fine form and substance, and of bright and varied colors. Just as the roses are fading, the phlox puts forth her flowers, producing a fine succession of bloom, and prolonging an interesting season at least six weeks. As regards their culture, it may be briefly stated that they succeed in any good garden soil, but they are greatly improved by being liberally manured, and an occasional supply of liquid manure during the growing season will greatly increase the size of their trusses.

**Francois Coppee.**—Large, creamy-white flower, with a carmine rose center; tall.

**Gambetta.**—Rose; vivid red eye; a splendid sort; tall.

**Lothair.**—Rich salmon color; crimson eye; large flower and spreading spike; the finest variety we have seen.

**Madame Lechurval.**—Silvery rose; crimson eye; very fine.

**Phoeon.**—Lilac rose, with carmine eye; large panicles and large flowers; a superb variety.

**Premier Ministre.**—Rosy white, center deep rose; very fine.

**Queen.**—Pure white; fine; medium height.

**Richard Wallace.**—White, with violet center; very large flower; tall.

**Vierge Marie.**—Pure white; very large and of a beautiful waxy texture; tall.

## DAHLIAS.

The Dahlia is one of the showiest of our autumn flowers. Commencing to flower in August, they are in a perfect blaze of bloom until stopped by frost in late autumn. The Cactus, Single and Pompon varieties are especially fine for cut flowers. We know of nothing more showy for table decoration than a loosely arranged bunch of long-stemmed Cactus or Single Dahlias. They delight in a deep, rich soil, should be planted three and one-half to four feet apart, and be tied to heavy stakes to prevent strong winds from breaking them down.

### LARGE FLOWERED DOUBLE.

**Snowdrift.**—Fine; of medium size but very double; pure white and one of the best for cutting.

**Sunrise.**—Very double; bright scarlet; showy.

**Amazon.**—A very handsome Dahlia; yellow with margin fringed red.

**Bob Ridley.**—Very double; it is of a rich dark scarlet.

**Pure Gold.**—A fine golden yellow; good form; extra for cutting.

**Sambo.**—Very double, and very beautiful; a rich velvety black.



DOUBLE DAHLIAS.

## POMPON OR BOQUET.

**Guiding Star.**—Flowers pure white, of the most perfect shape; the edges of the petals are beautifully fringed. The plant is dwarf and bushy and very free flowering. One of the best for cut flowers.

**Fairy Tales.**—Delicate primrose; fine shape; very free flowering and distinct.

**Lurline.**—Canary yellow; very pretty.

**Little Prince.**—A very showy variety; crimson, tipped white.

**Sappho.**—Rich maroon, sometimes tipped white; fine shape.

## SINGLE DAHLIA.

This section of the Dahlia family has become exceedingly fashionable owing to the value attached to the cut blooms, their airy forms giving their flowers a grace never attained by the finest double sorts. The flowers range from three to five inches in diameter.

**Bridal Wreath.**—Creamy white changing to pure white.

**Harold.**—Dark velvety maroon, nearly black.

**Crimson Beauty.**—A fine grower, early and free flowering.

**Yellow Bird.**—Flowers clear pale yellow; free bloomer.

**Fancy Free.**—Variegated; fine.



SINGLE DAHLIAS.

## CACTUS DAHLIAS.

The flowers of this variety are entirely distinct from the other classes; resembling some of the varieties of cactus, hence the name. Especially fine for cut flowers and decorative work.

**Constance.**—Pure white, fine shaped flowers, and one of the freest flowering.

**Glare of the Garden.**—A grand variety of the loose flowered or flat petaled type; a brilliant scarlet.

**William Pearce.**—One of the best bloomers of this class; flowers medium size, deep yellow

**Black Prince.**—Rich deep maroon shading to black; a beautiful variety.

## GLADIOLI.



GLADIOLUS SNOW WHITE.

The Gladiolus is the most beautiful of the summer or tender bulbs, with tall spikes of flowers, some two feet or more in height, often several from the same bulb. The flowers are of almost every desirable color, brilliant scarlet, crimson, creamy white, striped, blotched and spotted in the most curious manner. By cutting the spikes when two or three of the lower flowers are open, and placing them in water, the entire spike will open in the most beautiful manner. Set the bulbs from six to nine inches apart, and about four inches deep. Plant from middle of April to first of June. It is a good way to plant at two or three different times, ten days or two weeks apart. This will give a succession of blooms from July to November. In the fall, before hard frost, take up the bulbs, remove the tops, leave to dry in the air for a few hours, and store in some cool place secure from the frost, until spring.

**Africaine.**—An entirely distinct variety of quite a novel color; slaty-brown or scarlet ground, streaked with scarlet and pure white, with conspicuous white blotch.

**Ceres.**—Pure white, flamed lilac.

**Carnation.**—Large flowers of a fleshy white color, tinged at the edges with a rich carmine; the lower petals blotched, purplish carmine.

**Chameleon.**—Compact truss of large slaty-lilac flowers, flamed orange, with white bands down the middle of each petal; large creamy-white blotch

**Diamant.**—Fleshy-white of a remarkable freshness; throat ivory white, blotched and streaked carmine; early flowering.

**Engesseri.**—Very deep pink, lower petals blotched maroon.

**Eugene Scribe.**—Large and fine flower; rose blazed with crimson.

**Hesperide.**—Profusely blotched and flaked bright rosy-salmon, on a pure white ground.

**Isaac Buchanan.**—Fine yellow; one of the best.

**John Bull.**—Ivory white, tinged with yellow and lilac.

**Marie Lemoine.**—Fine open flowers; cream flushed salmon lilac; lower petals marked violet and yellow; one of the finest.

**Marie Dumotier.**—White streaked rose, purple blotched.

**Napoleon III.**—Bright scarlet, the center of the petals white striped.

**Pactole.**—Pure yellow flowers; slight rosy border; lower petals shaded with darker yellow.

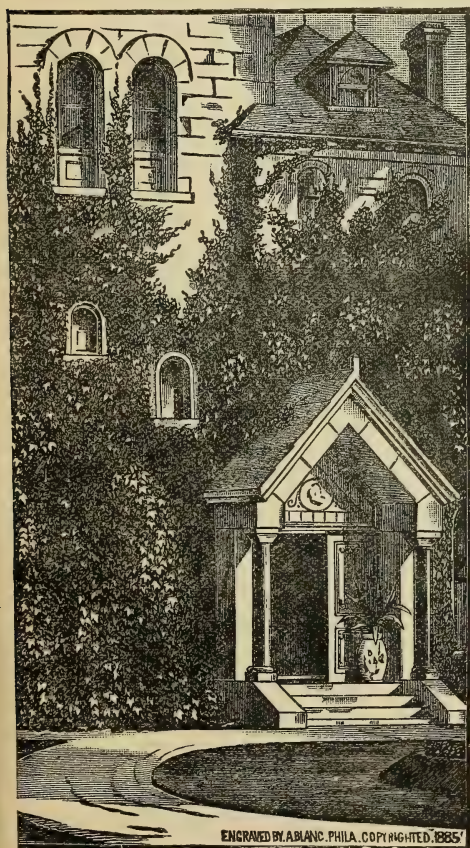
**Reine Blanche.**—Pure white, dark carmine blotch.

**Richard Cœur de Lion.**—Crimson red, flamed with garnet; lower petals spotted golden yellow.

**Shakespeare.**—White, very slightly suffused carmine-rose, large rosy blotch.

**Schiller.**—Sulphur, with large carmine blotch.

**Snow White.**—The flowers of fine shape, large in size and of a pure paper-white color, seldom showing a trace of any other shade. The spikes are large and set thickly with flowers. When planted late and the nights become very cool, it will be streaked with pink more than at any other time; even then if the spikes are cut and placed in water when the four lower flowers are open, no trace of pink will appear in the remainder. If at any season the spikes are cut when the first two or four lower flowers are open, and are allowed to develop in water, it is positively snow white. It is a good grower. Bulbs are healthy and strong, and in very many cases produce three spikes to each bulb; but to get the largest flowers and spike, only one spike should be allowed to grow. See cut.



ENGRAVED BY ABLANC, PHILA. COPY RIGHTED, 1885

BOSTON IVY.

## CLIMBING AND TRAILING SHRUBS.

**A. Quinquifolia.** (AMERICAN IVY OR VIRGINIA CREEPER.)—Every house in city or country in the Northwest should have at least one plant of this grand vine. Perfectly hardy, enduring any amount of abuse, it responds bountifully to a little care and will give dense shade wherever planted. It needs no protection whatever and, in the fall, the gorgeous coloring of the leaves will beautify the most unsightly spot. It throws out tendrils and roots at the joints by which it attaches itself to anything it touches. It is one of the finest vines for covering walls, verandas, or trunks of trees. See cut.

**A. Veitchii.** JAPAN CREEPER. BOSTON IVY.—Leaves smaller than those of the American and overlap one another, forming a dense sheet of green. The plant is a little tender while young and requires protection the first winter; but once established, there is no further risk. It grows rapidly and clings to wall or fence with the tenacity of Ivy; the foliage is very handsome in summer and changes to crimson scarlet in autumn. For covering walls, stumps of trees, rockeries, etc.,



AMERICAN IVY.

no plant is so useful. For the ornamentation of brick and stone structures it can be especially recommended. See cut.

### ARISTOLOCHIA. Birthwort.

**A. Sipho.** (DUTCHMAN'S PIPE.)—A very curious, perfectly hardy vine. If given good rich soil, the leaves are immense, many with a diameter of eight to ten inches, of a rich dark green. It is a very rapid grower, old plants making a growth of fifteen to twenty feet in one season. It has very odd shaped flowers that are a source of great wonderment to all who see them for the first time.

**Celastrus Scandens.** (CLIMBING CELASTRUS OR BITTER SWEET.)

—This is a very handsome native climbing or twining shrub. It has fine large leaves, yellow flowers and clusters of orange-capsular fruit. It is very ornamental in winter, when it is covered with the bright red berries, which remain on all winter.

### CLEMATIS. Virgin's Bower.

None among hardy perennials exceed in beauty and effectiveness the finer sorts of the Clematis. As a climber for the veranda, a screen for fences, for pillars along the garden walks, for training on walls or arbors, in masses on rockwork; for cultivation in pots, it has no rival among strong-growing blossoming plants. The Clematis should be grown in rich, deep sandy loam, and be well mulched with rotten manure in winter. The richest sheets of bloom and largest flowers are obtained where it has partial shade and a liberal supply of water at the roots.

#### LANUGINOSA TYPE.

Flower during the summer and autumn successionally, on short lateral summer shoots; flowers dispersed.

**C. Henryi.** (ANDERSON HENRY.)—Very large, fine form; free grower and bloomer; creamy white.

#### JACKMANNI TYPE.

Varieties flowering during the summer in continuous masses on summer shoots.

**C. Flammula.** EUROPEAN SWEET CLEMATIS.—Flowers small, white and very fragrant.

**C. Jackmanni.** (JACKMAN)—Large, intense violet purple; remarkable for its velvety richness; free in growth and an abundant and successive bloomer. See cut.

**C. Virginiana.** AMERICAN WHITE CLEMATIS.—A remarkably rapid climbing plant, growing to the height of twenty feet, producing an immense profusion of flowers in August. See cut.

**C. Modesta.**—This variety has a free-growing and free-blooming character, with flowers of a fine form, and of a bright blue color. July to October.

**C. Star of India.**—A very showy, very free flowering sort, with large flowers, first of a reddish plum color, changing to a violet purple, with Turkey-red bar in the center of each flower leaf. A distinct variety of great merit. July to October.

**C. Vitacella.**—A splendid variety



CLEMATIS JACKMANNI.



of the utmost profusion of bloom, flowers of medium size, bright wine red color, without a touch of purple. This is one of the best climbers for quick results that we can offer. Even if it kills back to the ground there is so much strength and vitality in the roots that new shoots are sent up and, if the soil is fairly enriched, it will make a growth of ten to fifteen feet in a season, giving good shade. The foliage is fine.

**C. Viticella Venosa.**—A beautiful Clematis of free growth. The flowers are above medium size; the color is a pleasing tint of reddish purple, elegantly veined with crimson. July to October.

**C. Coccinea.** (SCARLET CLEMATIS.)—Flowers most brilliant scarlet, quite unlike that of any other Clematis. Blooms in July. Very choice and desirable.



AMERICAN WHITE CLEMATIS.

## LYCIUM.

**L. Chinese.** CHINESE MATRIMONY VINE.—A most vigorous hardy climbing plant. It is a good climber and may be trained to the arbor, porch, fence, to the rockery or to the side of the house. By sending out a large number of side branches it covers a considerable amount of space. Every new growth is covered by bright, purple flowers which give place to clusters of brilliant scarlet berries. It thus continues flowering from late spring until frost and may be grown without danger from frosts in the Northern states.

## LONICERA. Honeysuckle, or Woodbine.

**L. Canadensis.** CANADIAN HONEYSUCKLE.—A very robust, rapid grower, with large glaucous leaves and yellow flowers.

**L. Flava.** YELLOW TRUMPET HONEYSUCKLE.—A well-known native vine, with yellow trumpet flowers.

**L. Var. Belgica.**—Monthly fragrant or Dutch

Honeysuckle. Blooms all summer. Red and yellow, very fragrant flowers.

**L. Sempervirens.** SCARLET TRUMPET HONEYSUCKLE.—This and its varieties are the handsomest in cultivation. It is a strong, rapid grower, and produces scarlet inodorous flowers. See cut.



TRUMPET HONEYSUCKLE.

**W. Frutescens.** SHRUBBY OR CLUSTER FLOWERED WISTARIA.—American. In habit less vigorous than the Chinese. Flowers pale blue, in short clusters.

**W. Magnifica.**—Flowers in dense drooping racemes of the same size as the Chinese and of a pale lilac color; vigorous and perfectly hardy.

### TECOMA. Trumpet Flower.

**T. Radicans.** AMERICAN CLIMBING TRUMPET VINE.—A splendid hardy climbing plant with very large trumpet-shaped scarlet flowers.

### WISTARIA.

**W. Sinensis.** CHINESE WISTARIA.—One of the most elegant and rapid growing of all climbing plants; attains an immense size, growing at the rate of fifteen or twenty feet in a season. Has long pendulous clusters of pale blue flowers in May and June and in autumn.



WISTARIA.

## TULIPS.

Extra Fine Named Varieties for Forcing or Bedding.

### DOUBLE.

**La Candeur.**—Pure white.

**Rex Rubrorum.**—Bright crimson-scarlet.

**Turnesol.**—Scarlet, yellow edge.

**Murillo.**—Rose and white. Very large and fine.

**Yellow Rose.**—Bright yellow.

**Gloria Solis.**—Crimson with yellow margin.

### DOUBLE MIXED TULIPS.

These bloom a little later than the single varieties. The flowers are larger and being double last longer in bloom than the single kinds. The single and double varieties planted in mixed beds together, lengthen the flowering season and make beautiful combinations; much handsomer, we think, than either planted alone. When desired we will make mixed assortments of single and double at same prices.



DOUBLE MIXED TULIPS.

## MIXED PARROT TULIPS.

Late single tulips of large size and most peculiar shape, very singular and striking; a great curiosity as well as very beautiful. Finest mixed colors.

### PARROT TULIPS IN SEPARATE COLORS.

**Lutea Major.**—Yellow.

**Gloriosa Perfecta.**—Red and yellow.

**Rubra Major.**—Large dark red.

**Admiral of Constantinople.**—Red.

### SINGLE MIXED TULIPS.

For beauty of form and brilliancy of color these early single and double tulips cast all other spring flowers into the shade. Nothing can equal, much less excel, their gorgeous appearance in beds, lines, ribbons, or groups in the spring garden, to which they impart as gay and rich an appearance as the finest summer bedding plants.

### SINGLE NAMED VARIETIES.

**Duc Von Thol Scarlet.**—Intense brilliant scarlet.

**Grand Duc.** (KEIZER'S KROON)—Brilliant scarlet; deeply edged yellow.

**La Reine.**—Blush white.

**Rose Grisdelin.**—Delicate pink.

**Canary Bird.**—Pure yellow.

**Pottemaker White.**—Pure white.

**Rosamundi Huykman.**—Bright pink and white.

**Proserpine.**—Rose Carmine.

**Cottage Maid.**—White with rose edge.



SINGLE TULIPS.

## LILIUM. Lily.

Lilies are usually planted in the fall and thrive best in a dry rich soil, where water will not stand in winter. After planting they require very little care, and should not be disturbed for several years, as established plants bloom more freely than if taken up annually. They should be covered with coarse manure or straw in the fall.

**L. Tigrinum.** (TIGER LILY.)—Bright orange with dark spots; perfectly hardy.

**L. Tigrinum Fl. Pl.** (DOUBLE TIGER LILY.)—Bright orange scarlet with dark spots; a strong growing, showy variety, and entirely hardy; succeeds well everywhere.

**L. Tenuifolium.**—This beautiful lily is a native of Siberia and perfectly hardy; it blooms early in the season; the color is a lovely vermilion scarlet; very handsome.

**L. Auratum.** (GOLDEN BANDED JAPAN LILY.)—This superb lily has flowers composed of six white petals, thickly studded with rich chocolate crimson spots, and a bright golden band through the center of each petal; exquisite vanilla like perfume. As the bulbs acquire age and strength the flowers attain their maximum size and number. Upwards of twelve flowers have been produced on a single stem. It is perfectly hardy in dry soil, also admirably adapted for pot culture. See cut.



LILY AURATUM.



LILY OF THE VALLEY.

**L. Convallaria Majalis.** LILY OF THE VALLEY.—This beautiful little plant is extensively grown for forcing in the winter and early spring months. The pendulous grace and beauty of its spikes of the purest white flowers being very much admired in the construction of the most valuable baskets and boquets. It is perfectly hardy, preferring a slightly shaded situation. Prepare soil to the depth of two feet with a mixture of leaf-mold and sand. Set the roots about six inches apart and two inches below the surface.

**L. Harrisii.**—The true Bermuda Easter Lily; flowers delightfully fragrant; pure waxy white and of great substance. The best forcing lily for the house. They can be grown out of doors if covered well.

**L. Candidum.**—Snow white, fragrant, well known garden lily.

## NEW LARGE FLOWERED FRENCH CANNAS.

This new class of cannas are entirely distinct from the older sorts, in that they are continuous bloomers and produce flowers three or four times as large and in much greater quantities. The large spikes of flowers somewhat resemble gladiolus but are much more brilliant in color ranging from the deepest crimson, orange, scarlet and salmon to light yellow, many being beautifully mottled and streaked, and are frequently compared to orchid flowers on account of their delicate markings.

**Antoine Chantin.**—A most distinct and vigorous growing variety, with bright green foliage, with very large flowers of a bright orange scarlet overlaid with crimson. Four feet.

**Admiral Courbet.**—Plant very vigorous; foliage green and produced in profusion. Flowers very large; beautiful citron yellow, striped with flame. Three to four feet.

**Franco's Crozy.**—Plant three to four feet with green foliage. Flowers very large with broad rounded petals; beautiful bright orange color slightly edged canary.

**Felix Crouse.**—Plant strong grower, four to five feet high, foliage deep green, flower spikes very numerous, deep scarlet.

**Geoffrey St. Hillaire.**—A grand, strong growing and very free flowering variety, with rich, bronzy-purple foliage and large, well shaped flowers of a rich glowing scarlet overlaid with orange. A most distinct and showy sort. Four to five feet.

**Ehemanni.**—The most distinct of all cannas on account of its large oval soft green leaves and carmine red flowers which are produced on long flower-stems, each stem producing from twelve to fifteen large drooping flowers. The flowers are as large as the gladiolus, and are used to advantage in boquet making. This is one of the most desirable and striking cannas ever introduced and cannot be too highly recommended.



FRENCH CANNAS.

**Lutea Splendens.**—Large dark green leaves. Flowers large on strong spikes; canary yellow, spotted light maroon. Four to five feet high.

**M. Ferrand.**—Purple foliage, flowers in a compact spike and of a carmine rose color; very fine.

**Leopardia.**—Very fine bright green foliage; with large flowers spotted.

## NOVELTIES IN FRENCH CANNAS.



**Mad. Crozy.**—One of the largest flowered and most distinct varieties yet introduced. The plant is of vigorous growth yet dwarf in habit. The foliage is a rich cheerful green and very massive. The flowers are produced in large branching stems closely set with bloom; individual flowers very large; dazzling crimson scarlet, distinctly bordered with golden yellow.

**Star of '91.**—Habit of plant very dwarf, but with full fine foliage. It has a persistent habit of throwing up fresh stalks from the base, each stalk producing a flower spike with several branches, each branch bearing twelve to fifteen flowers three to four inches across. The color of the flower is glowing orange scarlet faintly banded with golden yellow. A perpetual bloomer and makes an excellent pot or tub plant.

**President Carnot.**—A vigorous growing sort with beautiful dark bronze foliage, crimson scarlet flowers, large and fine.

## ALPHABETICAL LIST OF ROSES.

The following is a list of all the varieties arranged in alphabetical order. This will be found convenient for reference to the varieties in the different classes. The name of the class to which they belong is placed opposite each.

**ABBREVIATIONS**, describing the classes to which the varieties belong:

**A.**—Austrian or Yellow.

**H. Ch.**—Hybrid China or June.

**H. Cl.**—Hybrid Climbing.

**H. N.**—Hybrid Noisette.

**S.**—Scotch or June.

**T.**—Tea.

**N.**—Noisette.

**H. R.**—Hybrid Remontant or Hybrid Perpetual.

**H. T.**—Hybrid Tea.

**M.**—Moss.

**P. M.**—Perpetual Moss.

**P.**—Prairie.

**Rug.**—Rugosa.

	CLASS.
Alfred Colomb.....	H. R.
American Beauty.....	H. R.
Anne de Diesbach.....	H. R.
Baltimore Belle.....	P.
Blanche Moreau.....	P. M.
Bon Silene.....	T.
Bride.....	T.
Caroline de Sansal.....	H. R.
Catharine Mermet.....	T.
Chas. Lefebvre.....	H. R.
Climbing Jules Margottin.....	H. Cl.
Climbing Niphotos.....	T.
Climbing Perle des Jardins.....	T.
Climbing Victor Verdier.....	H. Cl.
Coquette des Alpes.....	H. N.
Coquette des Blanchés.....	H. N.
Countess of Oxford.....	H. R.
Clothilde Soupert.....	T.
Fisher Holmes.....	H. R.
Gem of the Prairie.....	P.
General Jacqueminot.....	H. R.
Gracilis.....	M.
Harrison's Yellow.....	A.
Jean Liabaud.....	H. R.
John Hopper.....	H. R.
La France.....	H. T.
Little Gem.....	M.
Madame Plantier.....	H. Ch.

	CLASS.
Madame Edward Ory.....	P. M.
Madame G. Bruant.....	Rug.
Madame Hoste.....	T.
Madame Cuisin.....	T.
Magna Charta.....	H. Ch.
Marie Baumann.....	H. R.
Marie Rady.....	H. R.
Marshall P. Wilder.....	H. R.
Maurice Bernardine.....	H. R.
Mrs. John Laing.....	H. R.
Marie Guillot.....	T.
Marechal Niel.....	N.
Niphotos.....	T.
Papa Gontier.....	T.
Paul Neyron.....	H. R.
Persian Yellow.....	A.
Pierre Notting.....	H. R.
Perle des Jardins.....	T.
Queen of the Prairies.....	P.
Rugosa Alba.....	Rug.
Rugosa Rosea.....	Rug.
Rugosa Rubra.....	Rug.
Salet.....	P. M.
Stanwell Perpetual.....	S.
Sunset.....	T.
Victor Verdier.....	H. R.
White Bath.....	M.

*"It is the month of June,  
The month of leaves and roses,  
When pleasant sights salute the eyes,  
And pleasant scents the noses."*

—Willis.



One of the Jewell Nursery Company's Rose Field's.—FROM A PHOTOGRAPH.

*"Any nose  
May ravage with impunity a rose."*

—Browning.

# ❖ ROSES ❖

*It was roses, roses all the way  
With myrtle mixed in my path.*

—Robt. Browning.



*A waft from the roadside bank  
Tells where the wild rose nods.*

—Taylor.

All agree that the queen of flowers is the rose, and long experience has taught us that we can have them here in the North and perhaps enjoy them more than our friends in the South, where they grow in greater profusion. Roses are more eagerly sought for, and used in decorations of all kinds, than any other flower. A few plants, well selected and cared for, will furnish beautiful flowers from early summer until late in the fall.



**KINDS TO PLANT.**

Of the following classes of roses, the Hybrid Perpetual or Remontant, Moss, June and Climbers are the most hardy, and, in Minnesota, can with suitable protection, be kept out of doors during the winter. The beautiful Tea or Monthly Roses are very nice for bedding out during the summer when they will give fine blooms. If the plants are taken up carefully in the fall, and trimmed back, and put in earth in a box, in a cool cellar, keeping the earth slightly moistened, in the spring they will come out fresh and will soon start into bloom. Care must be taken, however, not to put them out of doors until the weather is suitable.

**THE TIME TO PLANT.**

The best time is in the spring. Pot grown roses can be planted any time in the summer.

**SOIL.**

Roses will do well in any good garden mould, but are much improved by liberal manuring and good cultivation. The ground should be well spaded to the depth of eighteen inches, and enriched by digging in about one-fourth well rotted cow manure, or a sprinkling of bone dust. If the soil contains no clay, some good stiff clay should be added, and if not naturally underdrained, it should have broken bricks, stones, etc., placed at the bottom of bed for drainage.

**CULTIVATION.**

The ground should not be allowed to bake or become hard, but should be frequently stirred with the hoe to keep it light and mellow. In very dry times it should be hoed thoroughly every day. Cease cultivation the last of July to allow them to ripen their buds.

**PRUNING.**

Roses do not require much pruning in the summer; just enough to keep them in shape. In the spring it is best to cut back one-half or two-thirds of last season's growth, and cut off all dead shoots.

**WINTER PROTECTION.**

The principles of winter protection are: 1st, to have the wood as well ripened as possible; 2nd, have good drainage so that the bushes will not become damp and mouldy; 3rd, cover so as to prevent alternate thawing and freezing; 4th, uncover at the proper time. To secure the first, do not cultivate after August 1st and do not cover until just as winter sets in. For the second, level the bed so the surface water will all run off.

**HOW TO COVER.**

Put four to six inches of dry leaves, grass or litter of any kind on the ground, where the bush is to lie. Remove a little earth from one side of the bush and bend it to that side, gently pressing the top to the ground and secure it by means of pegs with a hook on the upper end. Cover the bush with six inches or more of the dry litter and over it place sods turned bottom side up. Over the sods scatter more litter to prevent alternate thawing and freezing.

It is well to place poisoned meal or corn in among the bushes to prevent the ravages of mice.

The above method is the best we know of in the latitude of Minnesota. In a warmer climate less protection is needed.

**UNCOVERING IN THE SPRING.**

Do not uncover early. Watch the bushes and open them up just before they start to grow.

**Abbreviations Used Describing the Habit of Growth.**

**Vig.**—For vigorous, being those varieties which are most rampant in growth and produce long strong shoots.

**Free.**—Varieties which rank next to the above in growth.

**Mod.**—Moderate; those which make a fair compact growth, but less strong than the preceding.

**Dwf.**—Dwarf. These are the most delicate or slow growing sorts. Among hardy roses those marked dwf. should almost invariably be budded.

## GENERAL LIST.

### CLASS I. CLIMBING ROSES.



CLIMBING ROSES.

mildew. A fragrant, very beautiful rose.

**Princess Adelaide.**—Vig. Pale rose, of medium size and good form. Foliage often blotched or variegated. Good in bud and flower. Do not prune this variety severely.

**Gracilis.**—Free. Deep pink buds surrounded with delicate fringe like moss. The most beautiful of all the moss roses.

**Little Gem.**—Dwarf. A miniature moss rose forming compact bushes densely covered with small double crimson flowers, beautifully mossed.

**Baltimore Belle.**—Vig. Pale blush becoming nearly white; compact and fine.

**Gem of the Prairie.**—Free. Red, occasionally blotched with white; large, flat flowers; the only variety in the class which is fragrant.

**Queen of the Prairie.**—Vig. Bright rosy red, frequently with white stripes. Foliage large and quite deeply serrated.

### CLASS II. YELLOW ROSES.

**Harrison's Yellow.**—Free. Golden yellow; medium size; semi-double. A freer bloomer than Persian.

**Persian Yellow.**—Free. Bright yellow, small, nearly full. It is desirable to grow more than one plant, and by pruning one this year in the usual way, and the other plant the next year, annual crops of flowers may be had.

### CLASS III. MOSS ROSES.

**Crested Moss.**—Free. Deep pink colored buds, surrounded with a mossy fringe and crest; free from



MOSS ROSES.

**White Bath.**—Mod. White, sometimes tinged with flesh; attractive in bud and open flower. The best white moss.

#### CLASS IV. JUNE ROSES.

**Madame Plantier.**—Free. Pure white, above medium size; full. Produced in great abundance early in the season. Foliage rather small, seven leaflets. One of the best white roses for hedges and for massing in groups.

**Magna Charta.**—Vig. Pink, suffused with carmine; full, globular. Foliage and wood light green, with numerous dark spines. A fragrant, excellent rose. Valuable for forcing.

**Stanwell Perpetual.**—Mod. Blush, medium size; double, delicately scented; foliage very small. Blossoms very early in spring and sometimes late.



MAGNA CHARTA.

#### CLASS V. HYBRID CLIMBING ROSES.

**Climbing Jules Margottin.**—Vig. Carmine rose, fine in open flower and in bud; the best of all the climbing sports. It may be grown either as a pillar rose, or by pruning kept in bush form. It should be in every collection.

**Climbing Victor Verdier.**—Free. Carmine rose.

#### CLASS VI. PERPETUAL MOSS ROSES.

**Blanche Moreau.**—Vig. Pure white, large, full, and of perfect form; the buds and flowers produced in clusters, and freely furnished with a deep green moss. A valuable variety.

**Salet.**—Free or Vig. Light rose, large, full; pretty in bud.

**Madame Edward Ory.**—Mod. Carmine red.

### CLASS VII. HYBRID NOISETTE ROSES.

**Coquette des Alpes.**—Vig. or free. White, slightly shaded with carmine; medium size; form semi-cupped; wood long-jointed; larger flowers than the others. The strongest grower of the entire class. See cut.

**Coquette des Blancs.**—Vig. or free. Pure white, sometimes faintly tinged with pink; flowers of medium size, somewhat flat, but full and very pretty; growth more bushy and symmetrical than any of the others. One of the hardiest. Later than the others in coming into flower.

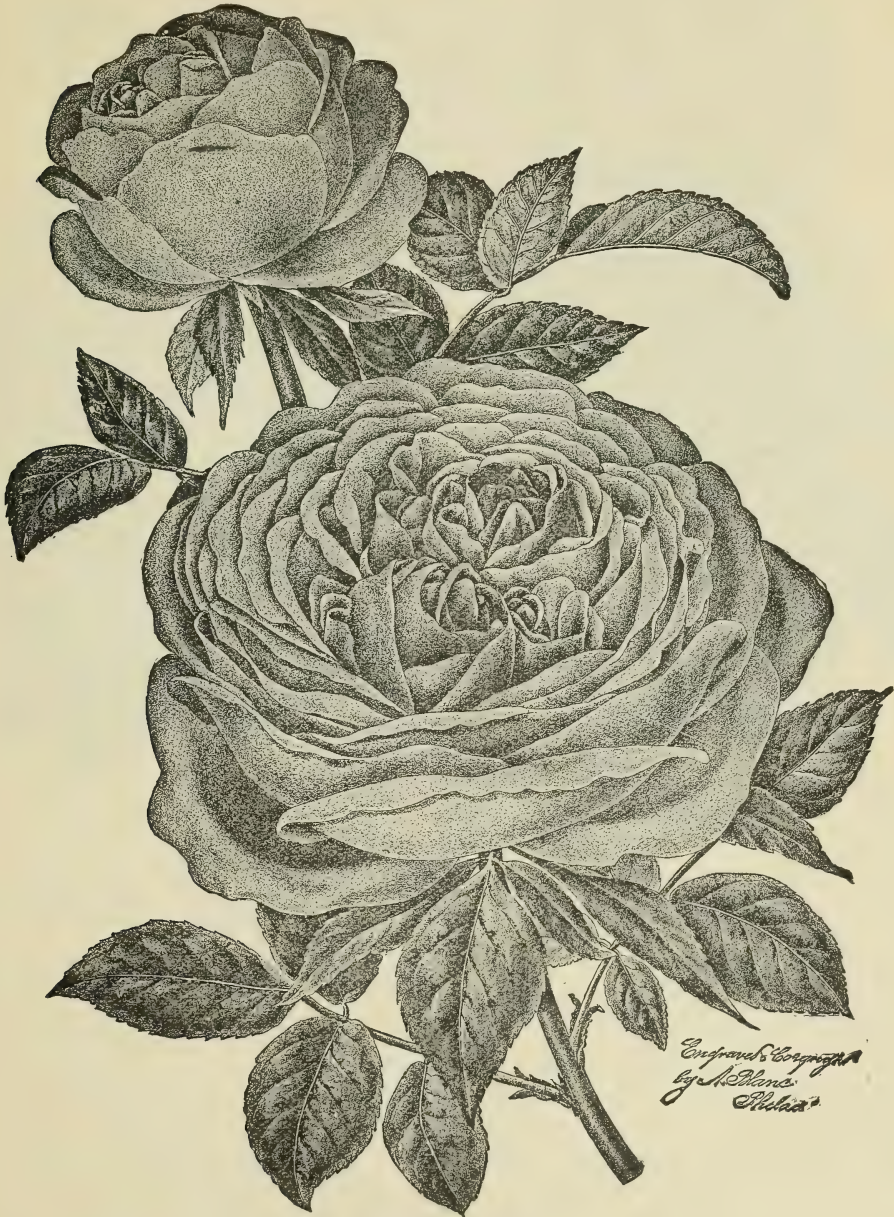


COQUETTE DES ALPES.

### CLASS VIII. HYBRID REMONTANT OR HYBRID PERPETUAL ROSES.

**Alfred Colomb.**—Free. Brilliant carmine crimson; very large, full and of fine globular form; extremely fragrant, and in every respect a superb sort. Green wood with occasionally pale greenish thorns; foliage large and handsome. One of the most useful of all sorts for general cultivation.

**American Beauty.**—Vig. Large, globular; deep pink shaded with carmine; delicious odor; has proved to be a most desirable variety for forcing.



AMERICAN BEAUTY.

**Anne de Diesbach.**—Vig. Syn.: GLORY OF FRANCE. Carmine, a beautiful shade; very large. A superior garden sort; fragrant; one of the hardiest. Valuable for forcing.

**Caroline de Sansal.**—Vig. Pale flesh color deepening toward the center; large, full, flat, often irregular in form. Rather subject to mildew, but a beautiful rose when perfect, and one of the hardiest. Generally the best in autumn.

**Charles Le Febvre.**—Free or mod. Reddish crimson, very velvety and rich, but fading quickly; large, full and beautifully formed. Foliage and wood light reddish green; few thorns of light red. A splendid rose



CHARLES LE FEBVRE.



GEN. JACQUEMINOT.

**Countess of Oxford.**—Mod. Bright carmine, fading in the sun; very large and full; not fragrant. Wood almost thornless; foliage very handsome, large and distinct; fine in the bud. Valuable for forcing.

**Fisher Holmes.**—Free or vig. Deep glowing crimson; large, moderately full, and of fine imbricated form. A superb rose.

**General Jacqueminot.**—Vig. Brilliant crimson; not full, but large and extremely effective; fragrant, and of excellent hardy habit; forces well.

**Jean Liabaud.**—Free. Crimson maroon, illumined with scarlet; large, full, fragrant. A very beautiful dark rose.

**John Hopper.**—Free. Bright rose with carmine center; large and full. A profuse bloomer and standard sort.

**Marie Baumann.**—Mod. Brilliant carmine crimson; large, full, of exquisite color and form; very fragrant. Extra fine.

**Marie Rady.**—Free. Vermillion shaded with crimson; large, very full, of fine globular form. A fragrant, superb sort, but a shy bloomer in autumn.

**Marshall P. Wilder.**—Vig. It is of vigorous growth with healthy foliage; flowers large, semi-globular, full, well formed; color, cherry carmine, and very fragrant. It continues to bloom profusely long after the other Remontants are out of flower. Vigorous and hardy.



MARSHALL P. WILDER.

**Maurice Bernardin.**—Vig. or free. Bright crimson, large, moderately full; a good free blooming sort, generally coming in clusters. Perhaps the most prolific of all crimson roses in the spring.

**Pierre Notting.**—Free. Deep maroon, illumined with bright crimson, often suffused with velvet; large or very large; globular form, pointed buds; highly scented. A superb dark rose, often at its best in the autumn; should be in every collection.

**Victor Verdier.**—Mod. Bright rose, with carmine center, a very fresh shade of color; not fragrant; free bloomer; wood nearly smooth. This variety, with its numerous progeny, is more tender than any of the other types in the class. A beautiful rose.

**Paul Neyron.**—Vig. A seedling from Victor Verdier, fertilized by Anne de Diesbach. Deep rose color; good tough foliage, wood rather smooth; by far the largest variety in cultivation. A free bloomer. Very desirable as a garden rose; valuable for forcing. See cut.

**La France.**—Mod. or free. Raised from seed of a tea rose. Delicate silvery rose changing to silvery pink; very large; full; of fine globular form; a most constant bloomer. The sweetest and most useful of all roses; none can surpass the delicacy of its coloring. See cut.



MRS. JOHN LAING.



LA FRANCE.

**Mrs. John Laing.**—Vig. A seedling from Francois Michelin; soft pink; large and of fine form, produced on strong stems; exceedingly fragrant; one of the most valuable varieties for forcing, and flowers continuously in the open ground. The most beautiful rose of recent introduction.





RUGOSA ROSES.

### CLASS IX. RUGOSA ROSES AND THEIR HYBRIDS.

This is a most interesting group of Japanese origin. The flowers are mostly single. The plant is highly ornamental on account of its good habit and beautiful glossy foliage. Of the hybrids, Madame G. Bruant is the only one we have to offer at present. See cut.

**Rugosa Alba.**—Mod. A species from Japan. Single, pure white blossoms of five petals; highly scented; a splendid shrub.

**Rugosa Rubra.**—Vig. Another Japan variety. Flowers single, of a most beautiful bright rosy crimson, succeeded by large berries of a rich rosy-red color, and are a great addition to the ornamental character of the plant.

**Rugosa Rosea.**—Vig. Also from Japan; flowers rose colored, tinged with violet; same size and form but of more vigorous habit than the preceding; a valuable shrub.



PAUL NEYRON.

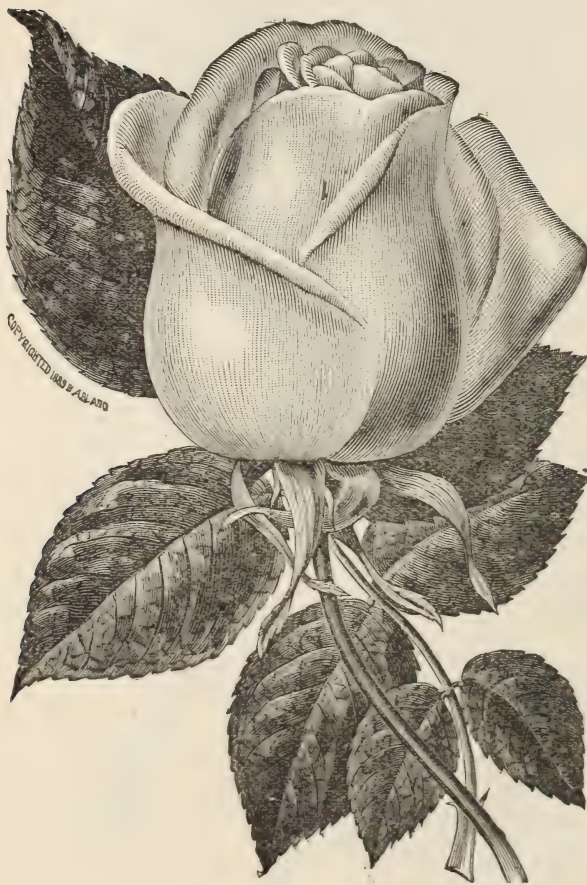
**Madame G. Bruant.**—Vig. The first of a new race of hybrids. In the bud state the flowers are long and pointed, when open, semi-double; pure white and fragrant, and produced freely in clusters at intervals throughout the summer; exceptionally hardy and vigorous; forms a handsome bush.

### CLASS X. TEA OR EVERBLOOMING ROSES.

Tea roses are well known for their exquisite fragrance, perfect forms, and the delicate charming tints of their blossoms. Under favorable conditions they produce an endless succession of lovely buds and flowers during summer and autumn. They should be planted in rich, warm soil and kept growing constantly, as on this depends their blooming. They should be kept in doors during winter.



MADAME G. BRUANT.



MADAM HOSTE.



PERLE DES JARDINS.



SUNSET.

**Maria Guillot.**—Unquestionably the best tea rose we grow. A strong, healthy grower and free bloomer. Flowers large, purest white and of the most perfect form, both in bud and when fully open. One of the most satisfactory roses for bedding, producing its lovely buds and flowers throughout the season. Should be in every collection.

**Papa Gontier.**—This is now one of our most popular roses. It is a strong grower and profuse bloomer. Extra large, finely formed buds; color brilliant carmine rose; semi-double when fully open.

**Sunset.**—A sport from the well known and popular old Perle des Jardins, which it resembles in everything except color, being a beautiful saffron, or apricot tinted with orange.

**Mad. Cuisin.**—A very beautiful rose. The flowers are of medium size; of fine quality; color a bright rosy-crimson with white center, shaded with yellow; it is a free bloomer and vigorous grower. A desirable rose.



CLOTHILDE SOUPERT.



CATHARINE MERMET.

**Clothilde Soupert.**—The flowers are of medium size, very double and beautifully formed; oval at first, but flattening as they expand. The color is a pearly white at outer edge, shading to a center of rosy pink, sometimes varying in color to nearly pure white. Very fragrant and a constant bloomer. A superb variety. See cut.

**Bon Silene.**—Noted for the size and beauty of its buds; color bright deep rose; equally valuable for summer or winter blooming. Exquisite tea scent.

**Catharine Mermet.**—Bright pink center shading to light, creamy pink; lovely large pointed buds. A popular variety.

**Madam Welche.**—Yellow, the center orange yellow, large, rather flat form; a distinct, good rose.

**Niphetos.**—A snow white rose of very large size and very pointed. Beautiful in shape. A standard for comparison.

**American Beauty.**—A strong, vigorous grower; a continuous bloomer; the flowers are large in size of a deep crimson color and delightfully fragrant.

**Perle des Jardins.**—

Very large, full and finely formed; color rich golden yellow, very closely resembling the Marechal Neil in size and color. The most popular yellow rose in cultivation. See cut.

**Climbing Perle des Jardins.**—

A new climber that will prove of permanent value. Its continuity of blooming, vigorous growth, and large rich yellow flowers, that are of the most beautiful form, must commend it to all. Young plants often sending up shoots 6 to 8 feet high.

**Climbing Niphetos.**—

A sport from Niphetos, retaining all the characteristics of the parent plant, except that it is of a strong climbing habit, and produces flowers of pure white, which are more delicately scented than those of the old Niphetos.

**Madam Hoste.**—A superb variety producing extra large flowers and buds that are of creamy pale yellow, deepening at the center to a pure golden. Edges and reverse of petals rich creamy-white; fine. See cut.

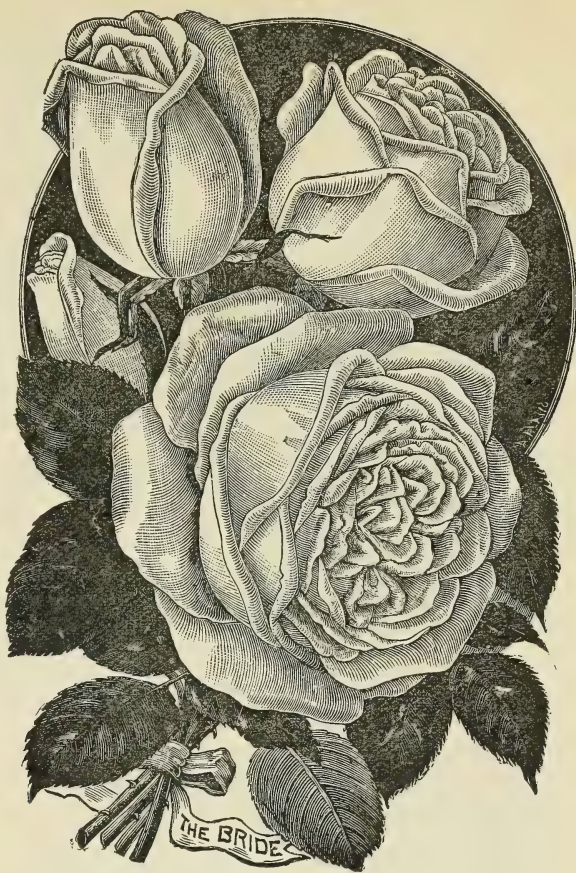


MADAM WELCHE

**The Bride.**—A lovely pure white tea rose of large size. Admirable for forcing as well as summer flowering. The buds have more substance than Niphotos, are full and double, and possess the good characteristics of Catherine Mermet.

**Marechal Neil.**—Free. Deep yellow; very large; very full; globular; highly scented. It is of a delicate constitution and requires careful treatment. It should not be severely pruned. The finest of all yellow roses.

**Duchess of Albany.**—A sport from the popular La France. While it resembles the parent in many respects, it is distinct in color; it is of a rich deep pink color; fine form; very vigorous, free blooming and fragrant.



## TREE ROSES.

No handsomer ornament can be found for the lawn or garden, however small, than the tree rose. Standing three feet or more high on its hardy stock, every individual bud and blossom can be seen and budded with hybrid perpetual roses it is a beautiful object the season through. They seem to be exceptionally profuse bloomers, as many as two hundred and sixty blossoms having been counted on a single bush. They are as easily cared for as other roses, requiring in fact the same management. During the summer keep the ground well stirred, not allowing a weed to grow, as the sunlight is fully as needful on the soil as on the foliage of the plants. If the season is dry, water once a week thoroughly at night, and if possible, shower them. They are easy to lay down and protect in the winter. See directions for covering roses. On page 78 we show an engraving made from a photograph of a tree rose on our grounds.

## HOUSE PLANTS.

As our customers occasionally inquire for suitable plants for the house, we include in this catalogue the following list, that will be found desirable and that we are prepared to furnish.



BOULE DE NIEGE.

### ABUTILON. Flowering Maple.

**Boule de Nieve.**—Pure white, bell-shaped flowers; splendid pot plant.

**Golden Fleece.**—Bright golden yellow.

**Fire Fly.**—Bright red.

### ACHRYANTHES.

A beautiful class of leaf plants, more hardy than Coleus.

**Brilliantissima.**—Leaves and stems of a brilliant ruby red color.

**McNally.**—Golden yellow, veined green.

### ALTERNANTHERA.

Used principally for ribbon lines, borders; also a pretty pot plant.

**Aurea Nana.**—Bright yellow.

**Rosea Nana.**—Tinted carmine and rose.

**Parychoides Major.**—Tinted crimson and scarlet

### BEGONIAS.

The finest foliage plants. Several varieties.

#### REX VARIETIES.

**Jules Cretain.**—Foliage fine, beautifully shaded, large flowers.

**Countess Louise Erdody.**—Beautiful; lobes of leaves with spiral twist.

**Annie Dorner.**—One of the finest; coloring rich; elegant notched leaves.

**Clementina.**—Upper side of leaf beautiful bronze with silvery spots.

**R. George.**—One of the strongest and showiest; large, glossy, silver leaves.

**Mad. Allamagny.**—Silvery leaf, center olive green, fine.



REX BEGONIA.

#### FLOWERING VARIETIES.

**Alba Picta.**—Leaves glossy green, thickly spotted, silvery white.

**Argentea Guttata.**—A cross between Olbia and Alba Picta. Purple bronze leaves, oblong in shape, with silvery markings. White flowers on the tips of the stems. It has the silvery blotches of Alba Picta, and beautiful form of Olbia.

**Semperflorens Elegans.**—Has a compact mass of medium size, glossy, olive-green leaves. It blooms continually. The flower is a rosy flesh color.

**Gilsoni.**—Large leaved, sharp pointed, very elegant, rosy white flowers.

**Metallica.**—Shrubby variety, good grower, free bloomer.



FLOWERING BEGONIA.

- Rubra.**—Dark, glossy green leaves, flowers bright red, in great profusion.  
**Manicata Aurea.**—Large, glossy leaves, beautifully blotched creamy white.  
**Olbia.**—Grand variety; leaves from seven to ten inches in diameter; flowers white.  
**Sandersoni.**—Leaves small, deep green, constant bloomer.  
**Weltoniensis R.**—Fine house plant; foliage delicately tinted, pink flowers.  
**Weltoniensis A.**—Similar to above, excepting flowers are white.

### TUBEROUS ROOTED.

Single and double varieties.

### BOUVARDIAS.

Fine for winter blooming, easy of culture, and fine for cutting.

**Alfred Neuner.**—Large double white flowers composed of three perfect rows of petals of the purest waxy-white color.

**Davidsonii.**—White; often delicately tinged pink.

**Dazzler.**—A splendid variety, of bushy, compact habit, producing fine clusters of attractive, moderately large, rich scarlet flowers.

**Elegans.**—Extra large flower of a light scarlet carmine color; one of the best single varieties.

**Hogarthi, fl. pl.**—A beautiful double variety, with light scarlet carmine flowers of extra large size. A valuable sort for cut flower purposes; fully equal to the old Hogarth in blooming qualities and size of bloom.

**Vreelandii.**—Pure white, compact.

### CACTUS.

In variety, including *Cereus Grandiflora*, *Epiphyllums*, &c.

### CALCEOLARIA.

Fine blooming plant for house.

### CARNATIONS.

**Elegetaire.**—Flowers large and bright rose.

**Silver Spray.**—Flowers large, perfect, finely fringed, pure white and very fragrant.

**President Garfield.**—Strong and bushy; flowers rich crimson; very fine.

**Lizzie McGowan.**—Fine; pure white, double and very fragrant; never bursts the calyx.

### JASMINE.

**Cestrum Aurantiacum.**—Night blooming Jasmine. Bright orange colored flowers.

### CHRYSANTHEMUMS.

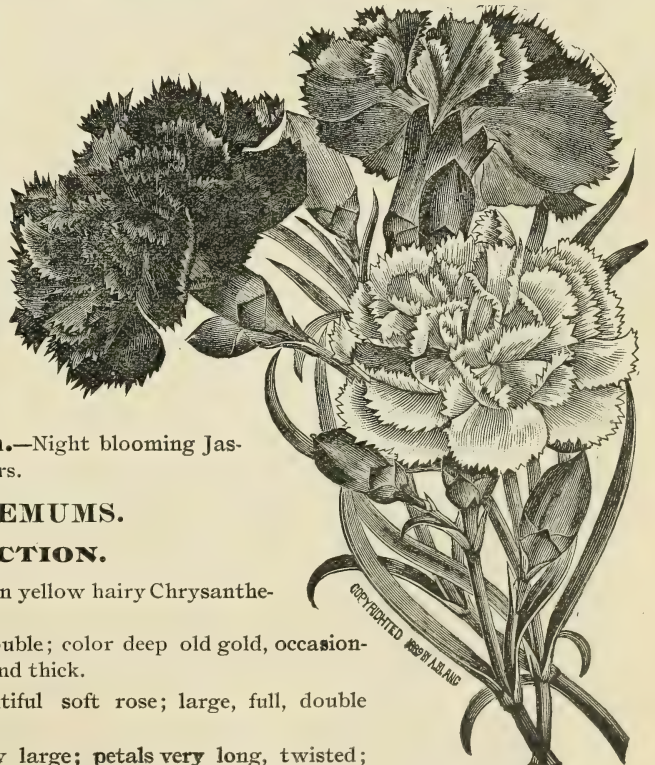
#### FIRST COLLECTION.

**W. A. Manda.**—New golden yellow hairy Chrysanthemum; very large.

**Harry May.**—Large and double; color deep old gold, occasionally veined with red; petals large and thick.

**Exquisite.**—Color a beautiful soft rose; large, full, double flowers.

**Mrs. E. D. Adams.**—Very large; petals very long, twisted; color pure white.



CARNATIONS.

**Orange Queen.**—Color at first a deep crimson, changing to orange red; very fine.

**Mrs. Robt. Craig.**—Pure snow white, incurved to form a perfect sphere; perfectly double; broad petal.

**Vivand Morrel.**—Extra large; petals long and loosely arranged, a beautiful light shade of pink; color very silky. A grand variety.

**Mrs. Maria Simpson.**—Color soft chrome yellow. Fine specimen of the Japanese type. Broad petaled and incurved. Shows no center.

**Jos. H. White.**—A large white variety, with upright Dahlia-like petals; very handsome.

### SECOND COLLECTION.

**Thora Strong.**—Pale Primrose yellow. Long stiff petals, forming an immense ball eight inches in diameter.

**Pearl.**—Pure waxy white, petals short, slightly incurved; distinct and showy.

**Mrs. Richard Townsend.**—Color a deep rosy pink, quite distinct from any other.

**Mrs. W. L. Scott.**—Beautiful pearly white with faintest tinge of flesh; flower very large; broad thick petals; very distinct variety.

**Massassaugua.**—Bright rosy pink, petals long and twisted; center well filled.

**Pride of Erie.**—A beautiful globe-shaped flower; color deep canary yellow; very early.

**Sylphide.**—Clear chrome yellow of beautiful shade; very large form distinct and fine.

**Triomphe d'Ex. de Marseilles.**—Deep amber, shading to brown.

**Wm. Falconer.**—A pale pure pink variety of the Ostrich Plume Chrysanthemums, with fine double flowers.

**Miss Minnie Wanamaker.**—Flowers very large, creamy white. One of the best white varieties for all purposes. When fully opened it appears like a snow-ball.

**Louis Boehmer.**—"The Pink Ostrich Plume Chrysanthemum;" beautiful shade of silvery pink. Petals finely incurved and covered with fine hairs.

**Ada Spaulding.**—Lower part of petals pink, upper portion pearl white; petals very large.

**Elmer D. Smith.**—Cardinal red, comes nearer being a scarlet maroon; strong grower.

**Mrs. J. G. Whilden.**—A handsome yellow variety of light tint; large size and splendid form; very early, large flowering variety.

**V. H. Hallock.**—Beautiful clear pink. The petals have a solid waxy texture, very handsome. Flowers large, on good stiff stems.

### THIRD COLLECTION.

**Lizzie Cartledge.**—Bright deep rose; full large double flower, partly incurved.

**Jessica.**—Fine for show purposes. The earliest large white; excellent for cutting.

**Ivory.**—A pure white flower of exquisite form and finish; fine for pot culture.

**Rohallion.**—Long, twisted, reflex petals, beautiful chrome yellow; distinct and fine.

**E. Molyneux.**—Rich, deep maroon red; outside of petals a golden tint. One of the finest.

**Emily Dorner.**—Rich shade of orange touched with crimson; nicely incurved broad petals.

**Frank Thompson.**—Nearly white in color, pearly pink at base of petals; a splendid flower; nearly spherical; petals broad and heavy.

**Gloriosum.**—Light lemon color with immense flowers. One of the best.

**Geo. Pratt.**—Large with broad flat petals; color violet shading into crimson.

**G. F. Moseman.**—Color deep chamois, each petal lined with terra cotta; extra large.

**H. Cannel.**—Deep lemon yellow, large and full; very fine; early.

**J. H. Laing.**—Very showy variety; color creamy white, slightly shaded rose; early.

**Kioto.**—Very large, incurved; yellow; strong free grower; extra fine.

**Leopard.**—Deep shade of carmine; irregularly splashed and spotted with carmine.

**Mrs. Geo. Bullock.**—Broad petals forming a large pure white flower; quilled petals.

**Mrs. And. Carnegie.**—Bright deep crimson, reverse of petals a shade lighter.

**M. M. Thibaut.**—Deep crimson, slightly spotted yellow; center petals of spiral form.

**Mrs. Fottler.**—Long pointed petals, opens flat at first, but develops into a half sphere; color clear soft rose.

**Mrs. Irving Clark.**—Pearl white on the margin, shading to deep rose in the center.

**Mrs. Winthrop Sargeant.**—Brilliant straw color; incurved, strong grower.

**Molly Bawn.**—Beautiful variety with long quilled petals; pure white, extra large.



**Matie Bruce.**—Delicate pink shaded mauve; fine large reflexed flowers.

**Mermaid.**—Soft mellow pink with deeper shadings on the edge, at base a deep cream.

### CINERARIA MARITIMA. Dusty Miller.

Silver foliage; fine border plant. Also fine for hanging baskets, and is much used in ribbon gardening.

### CINERARIA HYBRIDA.

Fine attractive plant; many colors. Very easy of culture.

### COBEA SCANDENS.

A beautiful climber, bearing large purple flowers.

### COLEUS.

Different varieties, covering a great variety of colors and shades. Fine for bedding.

### CYCLAMEN PERSICUM.

Beautiful foliage and exquisite flowers, especially adapted for window culture; the flowers are singular in shape and of various colors. The soil should be light and rich.

### CYPERUS ALTERNIFOLIUS. Umbrella Plant.

Handsome foliage plant.

### ECHVERIA. Hen and Chickens.

Ornamental succulent plants; used for edging rockeries, or massing.

### FARFUGIUM.

Fine foliage plant, green leaves, spotted with yellow.

### FERNS:

**Nephrolepis Exaltata.**—(Sword Fern.)—A very graceful fern with long sword-like fronds; very ornamental.

**Pteris Tremula.**—One of the finest for house decoration.

**Nephrodium Molle.**—A very beautiful fern of graceful drooping habit and easy cultivation.

**Asplenium Diversifolium.**—A very graceful fern. Makes a fine specimen plant.

**Adiantum Concavatum.**—Beautiful; its delicate fronds being much used with cut flowers.

**Adiantum Cuneatum Gracillimum.**—The finest species among the Adiantums; foliage very delicate.

### FUCHSIAS.

**Storm King.**—Flowers enormous size and very double; outside clear blush and center rosy coral.

**Snow Fairy.**—Dwarf and compact; a profuse bloomer; flower white.

**Speciosa.**—Flower dark red with pale red center.

**Mrs. E. G. Hill.**—Best of all the double whites.

**Phenomenal.**—Tube and sepals bright coral red, fine bloomer.



FERNS.

## GERANIUMS.



**Acteon.**—(D). Brilliant scarlet, upper petals tinted rosy lilac.

**Alfred Tennyson.**—(D). Bright orange scarlet, two upper petals flamed lilac.

**A. Gervais.**—(S). Soft light salmon scarlet; fine truss and flowers.

**Beauty Poitevine.**—(D). Very large, immense trusses, brilliant salmon.

**Chaplin.**—Semi dwarf; flowers large brilliant red.

**Comte De Elbe.**—(S). A beautiful shell pink; zoned foliage.

**Dr. Clenet.**—(D). Immense trusses, bright capucine scarlet.

**E. Legouve.**—(D). Zoned foliage; flowers large, fine shape; orange scarlet.

**Gloire Poitevine.**—Single, very large truss and flower, reddish orange white eye.

**Happy Thought.**—Variegated leaf; yellow and bright green.

**Heteranthe.**—(D). Trusses large a soft shade of scarlet; fine bedding variety.

**Mrs. A. Blanc.**—(S). Apricot red, veined darker; florets perfectly round.

**Mad. Du Luc.**—(S). Rose color, upper petals blotched, pure white; fine.

**Mrs. E. C. Hill.**—(S). Salmon, shading to the center; trusses very large.

**Mad. Salleroi.**—Leaves clear green, edged with white; finest of the variegated leaves.

**Mrs. Pollock.**—Beautiful plant; leaves green, bronzed red, crimson edged with golden yellow.

**Mt. of Snow.**—One of the best for bedding; leaf bright green with silver edge.

**M. G. De Meynot.**—(S). Semi pink, white eye, large flowers.

**Mad. Sampson.**—(S). Rich vermilion scarlet, immense trusses.

**M. Louis Fages.**—(D). Zoned foliage; flowers large, fine shape; orange scarlet.

**Vandæl.**—(D). Enormous trusses; salmon rose bordered white.

## IVY LEAVED.

Several varieties.

## SCENTED GERANIUMS.

Different varieties.

## LADY WASHINGTON GERANIUMS.

(PELARGONIUMS.)

Remarkable for their large showy flowers, brilliancy of colors, and delicate markings. Several fine, named varieties.

## HEDERA. Helix.

**English Ivy.**—Evergreen climber; fine.

**HELITROPE.**

These plants are universal favorites on account of their delightful fragrance. Flowering equally well as bedding plants in summer or as pot plants in the house in winter. Color ranges from a dark blue to an almost pure white. Different named varieties.

**HIBISCUS.**

Beautiful greenhouse shrub, showy flowers, single and double.

**HOYA CARNOSA. Wax Plant.**

Climber with fleshy leaves; beautiful, fragrant flowers.

**HYDRANGEA.**

**Thomas Hogg.**—Bears immense trusses of purest white flowers.

**Hortensis.**—Bright pink flowers, changing to bluish purple.

**Ramis Pictis.**—(Red-Branched).—A grand variety, producing flowers in immense trusses; color very deep rose. The wood is a reddish purple.

**Otaksa.**—Flowers large, bright pink.



HIBISCUS.

**LANTANAS.**

Fine blooming plants, particularly the white and yellow varieties; excellent for bedding out in summer.

**LEMON VERBENA.**

Fragrant foliage. Everyone should have it.

**LOBELIA.**

Low growth; fine for edging flower beds; blue and white.

**MAURANDYA.**

An elegant climber; fine bloomer.

**OXALIS.**

Beautiful for borders and edgings and also fine for hanging-baskets in winter.

**Rosea.**—Large pink flowers.

**Yellow.**—A new variety with large yellow blossoms; quite fragrant.

**PALMS ARECA LUTESCENS.**

One of the most valuable, having bright, glossy green foliage.

**PHOENIX DACTYLIFERA.**

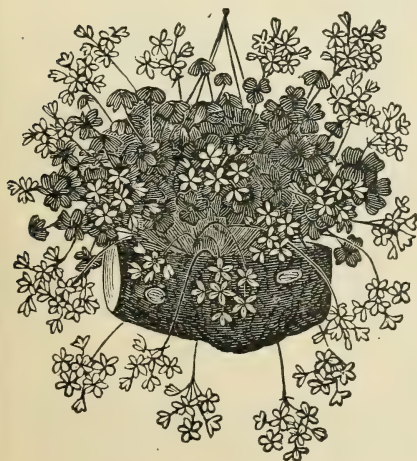
Very fine.

**LATANIA BORBONICA.**

Beautiful; large, deeply divided fan shaped leaves.

**PHOENIX RECLINATA.**

A beautiful palm, clothed with white filaments.



OXALIS.

**PANDANUS UTILUS.**

Screw Pine; the most valuable of any plant used in decoration.

**PANSIES.**

Choice mixed varieties in the spring. By the dozen.

**PETUNIAS.**

Double varieties of all colors.

**PILOGYNE SUAIVIS.**

Beautiful climber of great vigor.

**PRIMULA. Chinese Primrose.**

Fine for winter blooming. Varieties in white, red, rose, and double.

**PRIMULA OBCONICA.**

Bears constantly large clusters of pale lilac flowers; fine.

**STEPHANOTIS FLORIBUNDA.**

Fine climber for house culture, white flowers, delicious fragrance.

**SALVIA SPLENDENS.**

Brilliant scarlet, fine for garden and house culture.

**THUMBERGIA.**

Excellent climbing plant for baskets.

**VERBENA.**

One of the most useful and popular plants for bedding out, affording constant bloom and an almost endless variety of colors and markings, and are of the simplest culture and management. Choice mixed varieties in the spring.

## BULBS FOR HOUSE CULTURE.

### FREESIA.

Freesias are most interesting and beautiful. They give forth an exquisite fragrance, and are most desirable as a cut flower, as the flowers will remain in good condition, kept in water for upwards of two weeks. Flowers pure white with yellow blotch on lower petals. For a succession of blooms plant every two weeks four bulbs in a five-inch pot.

### CALADIUM ESCULENTUM.

One of the most striking of the ornamental foliage plants, either for pots or lawn planting. It will grow in any good garden soil; it is easy of culture; a full sized plant being four or five feet in height, with immense leaves. The roots should be preserved in dry sand in the cellar during the winter. See cut.



FREESIA.

### HYACINTHS.

**Improved Early White Romans.**—Flowers single, pearly white, more graceful and slender than ordinary Hyacinths, and for that reason are largely used in all cut-flower work. Each bulb produces two or three spikes of bloom.

**Pink Romans.**—Somewhat later, but easily forced, and very popular on account of their beautiful color.

### ALLIUM NEAPOLITAN.

Pure snow white blossoms in immense trusses. Most valuable for cutting and very easily grown in pots or boxes.



ALLIUM NEAPOLITAN.



CALADIUM ESCULENTUM.

### CALLA LILY.

The well-known Lily of the Nile, with large white flowers and broad foliage. A fine house plant and will prosper if given plenty of water while growing. Should have complete rest during May and June.



CALLA LILY.



ORNITHOGALUM ARABICUM.

### ORNITHOGALUM ARABICUM.

**Star of Bethlehem.**—A beautiful variety, valuable for forcing purposes; it throws up a spike which is surmounted by a number of large star-shaped pure white flowers which have a distinct black center, they are also somewhat fragrant.

### CHINESE SACRED LILY. *Narcissus Orientalis*.

**The Sacred Flower of China.**—The Joss flower, or flower of the Gods, and considered by the Chinese to be an emblem of good luck. This is a variety of the Polyanthus or many flowered Narcissus, grown in China, where they attain great size and strength, insuring luxuriant growth and remarkable profusion of bloom in a very short period. The bulbs bloom in six or eight weeks after planting throwing up several flower stalks thickly studded with bloom; white with yellow center, very fragrant. They are flowered in shallow, ornamental bowls containing water and pebbles to prevent them from upsetting when in bloom.

### TUBEROSES.

**Double Italian.**—One of the most delightfully fragrant and beautiful of the summer flowering bulbs throwing up tall spikes of double white flowers three feet high, which remain in bloom a long time. For early flowers they can be started in February or March in the green house or hotbed; and for a succession they can be planted at intervals as late as August. For flowering in the open border, plant about the first of May.



CHINESE SACRED LILY.

# A Group of Our Holstein-Friesian Cattle.



OUR HERD COMPRISES MANY OF THE CELEBRATED

## Aaggie, Clothilde and Netherland Strains.

These are universally recognized as

The Best Milk, Butter and Cheese Families in the World.

If you want to improve your Herd, let us send you a

**THOROUGHbred ÷ REGISTERED ÷ BULL.**

If you want to weed out your grade cattle and gradually secure a herd of Holstein-Friesians, get a young bull and a pair of heifers, bred to other bulls. This makes an excellent foundation for a herd of thoroughbred cattle.

If you want any PURE BRED HOLSTEIN-FRIESIAN CATTLE, write us what you want. We will send you catalogue and pedigree on application, and a certificate of registry with each animal sold.

Look over our herd before buying.

**JEWELL NURSERY CO.,**

**LAKE CITY, MINNESOTA.**

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to propagate,  
to originate new varieties,  
to plant a vineyard,  
to select the soil,  
to prune and trim,  
to graft,  
to girdle,

to get the best returns for your  
grapes,  
to keep grapes,  
to build fruit houses,  
to make wine,  
to make champagne,  
to preserve grapes,

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in this work. Descriptive List of good old and new varieties. Profusely and beautifully illustrated.

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**C. MITZKY & CO., Publishers,**

95 East Main Street,

ROCHESTER, N. Y.



## CROPS.

The following Table will assist Farmers or Gardeners in making an Accurate Estimate of the Amount of Land in Different Fields under Cultivation:

10 rods x 16 rods	.... 1 acre	220 feet x 198 feet	.. 1 acre
8 " x 20 "	.... 1 "	110 " x 369 "	.. 1 "
5 " x 32 "	.... 1 "	60 " x 726 "	.. 1 "
4 " x 40 "	.... 1 "	120 " x 363 "	.. 1 "
5 yds. x 968 yds	.... 1 "	200 " x 108.9 "	.. ½ "
10 " x 484 "	.... 1 "	100 " x 145.2 "	.. ½ "
20 " x 242 "	.... 1 "	100 " x 108.9 "	.. ¼ "
40 " x 121 "	.... 1 "		

### Average Number of Seeds contained in one lb. of the various Cereal Crops.

Wheat, 10,000; barley, 15,000; oats, 18,000 to 20,000; rye, 20,000; beans, 900 to 1,000; peas, 1,800 to 2,000; flax, 100,000; hemp, 24,000.

### Average Quantity of Seed Sown to an Acre.

#### IN DRILLS.

Beets.....	5 to 6 pounds.
Carrots.....	4 to 5 "
Dwarf Beans.....	1¼ bushels.
Early Peas.....	3 "
Marrowfat Peas.....	3 "
Onions.....	5 to 6 pounds.
Onions for sets.....	60 to 80 "
Onion sets, per acre, according to size.....	8 to 10 bushels.
Potatoes (cut tubers).....	12 to 14 "
Parsnips.....	5 to 6 pounds.
Radishes.....	9 to 10 "
salfy.....	6 to 8 "
ach.....	10 to 12 "
nip.....	1½ to 2 "

#### IN HILLS.

Corn.....	8 to 10 quarts
Cucumbers.....	2 to 3 pounds
Muskmelons.....	2 to 3 "
Pole Beans.....	8 to 10 quarts
Pumpkin.....	2 to 3 pounds
Squash.....	2 to 3 "
Watermelons.....	4 to 5 "

### Quantity of Seed Required for a Given Number of Plants:

About.

Asparagus.....	1 oz. 500 plants
Cabbage.....	1 oz. 1,500 "
Cauliflower.....	1 oz. 1,000 "
Celery.....	1 oz. 2,000 "
Egg Plant.....	1 oz. 1,000 "
Endive.....	1 oz. 3,000 "
Leek.....	1 oz. 1,500 "
Lettuce.....	1 oz. 3,000 "
Marjoram.....	1 oz. 1,500 "
Pepper.....	1 oz. 1,000 "
Rhubarb.....	1 oz. 500 "
Sage.....	1 oz. 1,000 "
Savory.....	1 oz. 2,000 "
Thyme.....	1 oz. 4,000 "
Tomato.....	1 oz. 1,500 "

### Quantity of Seed Required for a Given Number of Hills:

Corn.....	1 qt. to 200 hills
Cucumbers.....	1 oz. to 125 "
Muskmelon.....	1 oz. to 60 "
Pole Beans, Limas.....	1 qt. to 100 "
Pole Beans, Wax.....	1 qt. to 150 "
Pumpkin.....	1 oz. to 50 "
Squash.....	1 oz. to 50 "
Watermelon.....	1 oz. to 30 "

### Quantity of Seed Required for a Given Length of Drill:

Asparagus.....	1 oz. 60 feet of drill
Beet.....	1 oz. 50 "
Beans, Dwarf.....	1 qt. 100 "
Carrot.....	1 oz. 100 "
Endive.....	1 oz. 100 "
Okra.....	1 oz. 40 "
Onion.....	1 oz. 100 "
Onion sets.....	1 qt. 50 "
Parsley.....	1 oz. 125 "
Parsnips.....	1 oz. 200 "
Peas.....	1 qt. 75 "
Radishes.....	1 oz. 100 "
Salsify.....	1 oz. 70 "
Spinach.....	1 oz. 100 "
Turnip.....	1 oz. 150 "

### Table Showing the Amount of Seed Necessary for an Acre, and the Number of Pounds to the Bushel:

	No. lbs. to Bu.	No. lbs. to Acre.
Alfalfa.....	60	12 to 15
Alsike Clover.....	60	5 to 8
Barley.....	48	75 to 90
Buckwheat.....	48	50 to 75
English Rye Grass.....	28	75 to 100
Flax.....	56	28 to 42
Hemp.....	44	30 to 60
Henderson's Mixed Lawn Grass.....	21	75 to 100
Hungarian.....	48	40 to 50
Johnson Grass.....	25	25 to 30
Kentucky Blue Grass.....	14	40 to 50
Millet.....	50	40 to 50
Oats.....	2 to 3 bushels	
Orchard Grass.....	14	45 to 50
Peas, Field.....	60	120 to 180
Red Clover.....	60	12 to 14
Red Top.....	14	30 to 40
Rye.....	56	75 to 90
Sugar Cane.....	50	6 to 8
Timothy.....	45	25 to 40
Wheat.....	60	60 to 90
White Dutch Clover.....	60	5 to 8

### Average Gross Produce per Acre of the Cereal Crops.

Wheat, 20 to 25 bushels; oats, 35 to 40 bushels; barley, 35 to 40 bushels; rye, 25 to 30 bushels; peas, 25 bushels.

### Weights of various Farm Crops.

Two and one-fifth cubic feet of new wheat weighs 112 lbs.; oats, 3.65 cubic feet, 112 lbs.; barley, 2.38 cubic feet, 112 lbs.; straw, in its usual condition, weighs 3½ lbs. per cubic foot—it may be compressed to weigh nearly 6 lbs. per cubic foot; hay in like manner will weigh respectively 5 and 8 lbs. per cubic foot. A bushel of grain when lying on the floor occupies a space of one square foot, with a depth of 15½ inches. Turnips, about 1,000 lbs. to the cubic yard; ruta-bagas, about 1,350 lbs.; mangel wurzels, about 1,100 lbs.; potatoes, about 1,250 lbs., and carrots, about 1,100 lbs. to the cubic yard.

A ton of Timothy hay in stack or mow, well pressed, measures 480 cubic feet, or 6x8x10 feet. A ton of mixed Timothy and clover measures 520 feet. A ton of mixed meadow grasses measures 600 feet.

A ton of loose straw measures 900 feet.

### Average Weight per Acre of the Root and Hay Crops.

Turnips, 20 to 30 tons; carrots, 25 tons; potatoes, 6 to 12 tons; hay, 1 to 2 tons; clover hay, 2 tons.

### Average Weight of the Straw of the Cereal Crops per Acre.

Wheat, 3,000 to 3,500 lbs.; oats, 2,000 to 2,500 lbs.; barley, 2,100 to 2,500 lbs.; rye, 4,000 to 5,000 lbs.; peas, 2,700 lbs.



# ANNALS, APR 95

MR. HALE'S WEEKLY BUDGET OF NEWS.

(Prepared especially for "The Hartford Courant," by J. H. Hale of South Glastonbury.)

We have a patch of about 60,000 currant cuttings, put in last October, and heavily mulched with stable manure through the winter. The cuttings were all put in about the same time and all were of equally good wood. The mulch was removed early in April of this year and thorough cultivation given between the rows, which are eighteen inches apart and the cuttings three inches apart in the row.

All of the cuttings made about the same start in early spring, but the difference in growth now, the last of June, is so wonderfully marked as to be worthy of comment. Perhaps 50 per cent. of the Fays will not average much above an inch of new growth, 25 per cent. more are two to five inches high, and the balance four to six inches, with a very small percentage ten or twelve inches in height. Perhaps half of the Victorias are two to four inches in height and have ceased their growth, the balance are six to ten inches in height and still making considerable growth. Cherry has about 25 per cent. that are not more than two to four inches in height and the balance of them will average ten to fifteen inches and are still growing vigorously. White Grape—smallest are six to eight inches in height and the balance of them twelve to fifteen inches, with a small percentage even larger than this; while a block of **North Star** have very few not more than eight or ten inches in height, and the great majority are two feet high and more, with some specimens that have fully three feet of new growth at this date, and are growing very vigorously.

It is a wonderful contrast—this difference in plant growth in these five varieties. Whether the slower growing ones will start off again when rainy weather comes next month remains to be seen; but, at this date, July 15, 1894, 80 per cent. of the North Star would grade as two-year-old bushes, and a small per cent. of this grade could be gotten out of Cherry and White Grape, while of the Fay not more than ten per cent. are yet of a size to make them grade as light No. 1. All the rest will require growing another year to make them come up to good one-year size, unless they make a wonderful change in their growth during July.

**North Star Currant.**—We have a half-dozen plants now four years old. They are proving as strong and vigorous growers as the Long Bunch Holland and very much stronger than the Fay, and red and white Dutch. They are now well loaded with fruit. The clusters equal any variety we have tried, and the berry is larger at this date than the Victoria and Prince Albert. We think it is going to be valuable for this region on account of its robust habit. The Fay is not a success on our windy prairies on account of the weak connection of the new growth with the older wood.—JOHN S. HARRIS, La Crescent, Minn.









# The Jewell Nursery Co.

GENERAL NURSERY STOCK  
HOLSTEIN-FRIESIAN CATTLE

LAKE CITY, MINNESOTA

Dear Sir:--

In reply to your recent communication, we are pleased to mail you our New Illustrated Catalogue of Hardy, Northern Grown Nursery Stock, small fruits, ornamental plants, shrubs, vines, etc., of which we carry a very complete assortment, specially adapted to this climate, and we also request your careful attention to the statements herein set forth.

The following facts are well known to all advanced horticulturists and fruit growers, viz: The farther NORTH a tree is grown, the hardier and more vigorous is its habit. The wood is fully matured, hence the shock of transplanting does not affect it to the same extent. Again trees grown in the extreme North come into bearing sooner and will ripen both wood and fruit earlier in the season than the same varieties grown elsewhere, thus avoiding the early frosts which are fatal to many kinds of fruit. The fact that our seasons are short and winters severe compels us to select only the hardiest and most thrifty, vigorous varieties for propagation, and a tree that can be grown in this climate MUST BE HARDY elsewhere. Again, we let our trees stand until the wood is thoroughly ripe, so that the ends of the limbs are not soft, pulpy, and tender, and liable to kill back. We also dig all our stock with a patent tree digger, which preserves intact all the fine fibrous roots so essential to the life of the tree. Our apple trees are all grown upon stock raised from select native apple seed, thus avoiding the tendency to blight, which is so common in trees grown from French Crab stock. Our plum trees are also grown on seedlings raised from the seed of the native wild plum, thus insuring a perfectly hardy root that will not root kill and is free from insect enemies and foreign diseases.

Our extreme northern location enables us to supply you with the hardiest iron-clad varieties known. Trees that succeed with us can be relied upon as being adapted to your locality. Do not throw away your labor, time and money on cheap southern stock, BUT BUY THE BEST. You will find in this enclosure a fac-simile plate of the North Star Currant (made from a photograph of a bunch of the fruit), and a few testimonials from parties who are growing it.

The North Star Currant is grown in the severe cold climate of Minnesota. The fruit is very large, uniform in size, a bright red, larger than the Red Dutch or Victoria, and rivalling the Cherry Currant, while each bush will yield double the amount of fruit. The bunches are from four to six inches long, densely packed with fruit, involving only half the labor in picking the crop. The berries cling to the branches long after the fruit is ripe and DO NOT SHELL OR DROP OFF. This habit lengthens the season of this Currant from four to six weeks. It is an early and prolific bearer, producing twenty-five per cent more fruit than the common sorts. It is never affected by borers or insect enemies. It is the best currant grown for WINE or JELLY, and only requires half the sugar used with other sorts. It is PERFECTLY HARDY and will grow in any climate and its rapid growth insures a large proportion of fruit bearing canes at an early age. At the last meeting of the Minnesota State Horticultural Society, the North Star was recommended for general planting.

REMEMBER, we are the original owners of the NORTH STAR Currant; that it is grown in the state of Minnesota; that each plant will bear a METAL SEAL with our trade mark and the name "NORTH STAR" stamped thereon, as a guarantee that they are genuine.

We have a fine assortment of general nursery stock GROWN IN MINNESOTA, ornamental shrubs, vines, roses, etc., that can be grown successfully in this climate and WE WANT YOUR BUSINESS. We will give you choice stock carefully graded and packed, so it will reach you in perfect condition for planting. Give us a trial order. We will cheerfully answer any questions concerning planting and care of stock when requested.

Respectfully,

*The Jewell Nursery Co.*



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