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THE "HENDERSON" LAWN GRASS SEED

EVERYTHING FOR THE LAWN
PETER HENDERSON & CO., 35 & 37 Cortlandt St., NEW YORK

Henderson's "Everything for the Lawn" 1916

HOW TO MAKE A LAWN—By PETER HENDERSON.

Digging



Draining



Grading



Fertilizing



Seeding



Mowing



Rolling

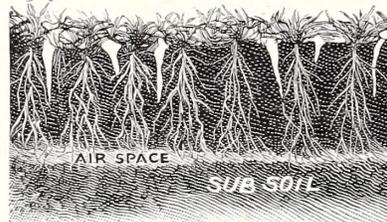


Renovating

THE VALUE OF A LAWN. That an expanse of smooth green turf, surrounding a dwelling is a distinct asset, adding much to the appearance, and therefore the value of a house is generally admitted; but not infrequently we see, after dwellings costing it may be from five to thirty thousand dollars are erected, that the grounds surrounding it are left to the tender mercy of some ignorant pretender to grade and put in shape. The architect's duties end with the completion of the building, and very often the contractor is commissioned without any instructions to make the lawn. This frequently results in the beauty of the place being marred—for this matter requires both intelligence and good taste, and if the lawns are of great extent some knowledge of the principles of landscape gardening.

The character of the turf which is to form the "green carpet" is the first and most important consideration, for unless this be of the best, all the subsequent labor will be in vain. The matter resolves itself into the question—what grasses are the most suitable for forming a perfect lawn? The answer is "turf-forming" grasses, which will form a closely interwoven, firm, deep and elastic turf; growing so closely that weeds are unable to obtain a foothold. All "bunch grasses" that is, all grasses that form tussocks, by growing in separate clumps, must be rigidly excluded from any combination of grasses for a lawn.

GRASS SEED MIXTURES. There are hundreds of varieties of grasses but only about sixteen of them are suitable for use in making a lawn, and a perfect and enduring lawn cannot be made by sowing any single one of these varieties. Kentucky Blue Grass for instance which is sometimes recommended for lawns grows but sparsely during midsummer, is slow to form a close sward—requiring two years to do that; and loses color in hot weather. A good lawn can only be made by sowing a combination of grasses so arranged that they arrive at their best during different months of the year, one kind constantly succeeding another so that perpetual verdure is maintained. Another great advantage secured by sowing mixtures, is that the plant food in the soil is made use of to the fullest extent, because such grasses, having different root formations—some being shallow rooted and others deep rooted in habit—seek their food at different levels, and treble the usual number of plants are able to grow on every square foot of land. Thus a close turf is formed which takes entire possession of the soil to the exclusion of all weeds, and a perfect lawn is produced which is constantly covered with a carpet of living green. The Henderson Lawn Grass Seed is a combination of just such grasses as those described. It is the fruit of years of experience and close study of American conditions and is undoubtedly the best for the American climate (see pages 3, 4 and 5).



THE IMPORTANCE OF ROLLING.

In the winter time, alternate thawing and freezing causes the ground to heave, leaving air spaces and fissures exposing tender feeding roots to the air which dries them out and kills them. Also in very hot weather the ground bakes, and cracks appear which lead down to the roots. These must be closed up by thorough rolling or the roots are killed.

Henderson's Famous ROSES Are All Pot-Grown

We Ship Them Already Growing to All Parts of the U. S.

We do not sell dormant foreign Rose bushes such as are offered for sale by Department Stores and others. These dormant plants are grafted on wild briar stocks, and are both unreliable and unsatisfactory, possibly not ten per cent. of them grow.

Roses are Our Leading Specialty and the greater part of our 4½ acres of glass structures at Arlington Ave., Jersey City, N. J., is devoted to the growing of Roses. Here under the direction of experts who have had life-long experience we raise annually hundreds of thousands of vigorous, healthy Rose plants, which we ship already growing, and with leaves fully developed, to purchasers in all parts of the United States.

Below we offer several collections of Roses which have given satisfaction and pleasure to thousands of Rose lovers. All these have been selected with great care and are the result of years of observation, and close study of the requirements of the suburban Rose garden.

For our full list of Roses see pages 129 to 148 in our catalogue "Everything for the Garden" for 1916.

That our Roses give universal satisfaction is proved by the hundreds of unsolicited testimonials we receive each season from our gratified customers.

Buyer pays transportation. 3d size sent postpaid if desired.

"The Roses came yesterday in fine condition. The quality was fine, and the packing splendid. You deserve great credit for your correct business methods. Set me down for a life-long customer."
JOHN E. ENNIS,
Hendersonville, N. C.
June 12th, 1915.

"Roses bought from you last spring are doing very well and have given the greatest satisfaction. The Tea Roses draw the admiration of all visitors to Rosemount, my summer home."
M. A. KEIFER,
Uniontown, Pa.
July 19th, 1915.

"I bought a collection of Roses from you last season and was more than pleased with the results. It was simply wonderful to have such beautiful Roses and they bloomed continuously until frost came."
W. W. ACKROYD,
1606 West Calvin St.,
Syracuse, N. Y.
April 8th, 1915.

"Please accept my thanks for the fine Rose bushes you sent me. They were fifty per cent. better than I expected, and you surely were very generous with the extras. Your shipment was one big surprise, and I shall recommend your stock to all my friends."
JOHN H. ARNOLD,
55 Fox St.,
Buffalo, N. Y.
July 19th, 1915.



"These are some of the Roses from Rose bushes purchased from you last year. They were from your third size plants. They are wonderful."
GEORGE E. COWARD,
June 12th, 1915. Prospect St., South Amboy, N. J.

"The Roses we got from you last year and the year previous have done wonderfully well, nowhere have I ever seen finer blooms than La France had last summer."
Mrs. LLOYD T. EVERETT,
Ballston, Va.
Mar. 1, 1915.

"Plants arrived yesterday in good condition. I was very well pleased with the appearance of the Rose plants and thank you for the two extra plants. This makes 35 Roses of different kinds I have already planted, and yours are by far the strongest plants I have received."
JEFF EVANS,
Ebensburg, Pa.
July 2, 1915.

Summer Garden Collection

In this unique offer we group twelve summer-blooming Roses of established merit, and send them free by Parcel Post, for \$1.00. As they are growing in pots they can be sent at any time, and may be kept in a sunny window, in pots, until time to plant out in the garden. The plants offered are grown in 3-inch pots and on their own roots.

SPECIAL OFFER—The 12 Roses, free by Parcel Post, for \$1.00. If by express (buyer to pay charges), we can send them with all the soil on the roots; a great advantage.

The Imperishable Collection OF 12 HARDY ROSES

The twelve Hybrid Perpetual Roses named below are unequalled in their class, combining the greatest variety of form, richness of color, and freedom of bloom, which it is possible to get in that number. The first and second sizes should bloom this year, and the third next year.

Anna de Diesbach. Rich carmine. A grand Rose. This fine variety is most useful either for garden purposes or for growing in pots in greenhouses. Very free-blooming; fine long stems, so that it is very well adapted for cutting in summer.

Clio. A very vigorous grower; has large, handsome foliage. The color is delicate satin-blush, with a light shading of rosy-pink at the center.

Dinsmore. A splendid bedding Rose, as free-blooming as the "Monthly"; dwarf branching habit. Dazzling scarlet-crimson; full and double; rich, spicy fragrance.

Frau Karl Druschki. The most beautiful and largest snow-white Rose now before the public. The flowers are 4 to 5 inches across; perfectly double and delightfully fragrant with large thick petals; a healthy, vigorous grower, entirely hardy, and a constant and abundant bloomer.

Gen. Jacqueminot. The most popular hardy crimson Rose ever introduced. It is a strong, vigorous grower, entirely hardy; an early and abundant bloomer. Its brilliant crimson is the standard of color by which other Roses are judged; flowers full and fragrant, popularly called the "Jack" Rose.

Hugh Dickson. A rich, deep crimson, shaded scarlet; intermediate tones added give a brilliant effect. An exceptionally fine red Rose. Rich and spicy fragrance; a vigorous grower and free bloomer.

Jubilee. The grandest hardy dark red Rose yet offered. The flowers are very large, the fragrance strong and spicy. The color is pure red in its deepest tone, shading to deep crimson-red with the darkest velvety-maroon in the depths of the flowers.

La France. Peach-blossom color, shaded pink and silver-rose. The flowers are large and beautiful either in the bud form or when fully expanded. It is very free-blooming, every shoot forming a beautiful flower and most deliciously fragrant.

Magna Charta. This fine hardy Rose is distinguished alike for its vigorous, healthy constitution, freedom of bloom and handsome foliage. Flowers bright, deep pink; very large and fragrant. A popular Rose.

Mrs. John Laing. Rich satiny-pink, large and full; delicious fragrance. This fine variety cannot be too highly praised. For freedom of bloom it is unsurpassed in its class.

Paul Neyron. Probably the largest of all Roses. Color, clear, dark pink shaded carmine. Form of flowers, bold and handsome; very fragrant.

Ulrich Brunner. A beautiful hardy Rose in flower and foliage. The former is large and cupped; bright cherry-red, and very fragrant. Long flower stalks almost devoid of thorns.

SPECIAL OFFER—The "Imperishable" Collection of 12 Hardy Roses, 1st size, \$6.00; 2d size, \$4.50; 3d size, \$1.50. Single plants of any of the above, 1st size, 60c.; 2d size, 50c.; 3d size, 15c. each.

A Selection of New Climbing Roses

Climbing Gruss an Teplitz. Unquestionably one of the finest Climbing Roses ever introduced. The color when first opening is very dark rich crimson, changing to bright scarlet. Remarkably healthy and vigorous.

Price, 1st size, \$1.00 each; 2d size, 75c. each, \$7.50 per doz.; 3d size, from 3-inch pots, 25c. each, \$2.50 per doz.

Excelsa. Fiery-Red Rambler Rose. A splendid, new Climbing Rose, remarkable for the brilliant fiery-red of the flowers. Great masses of giant trusses are produced on the plants. The flowers are very double and are larger than any of the Rambler Roses. It is very vigorous in growth and belongs to the disease-proof race of Climbing Roses developed by crossing on Rosa Wichuraiana.

Price, 1st size, 75c. each, \$7.50 per doz.; 2d size, 50c. each, \$5.00 per doz.; 3d size, from 3-inch pots, 20c. each, \$2.00 per doz.

A SELECTED LIST OF Hybrid Perpetual Roses

The Hybrid Perpetual Roses are commonly known as "June Roses." They are distinguished for their large flowers, richness of coloring, delightful, spicy fragrance and above all for their hardiness, being capable of resisting frost which would destroy most of the ever-blooming Roses. For this reason they are largely planted in the North. While the main crop of flowers is borne in early summer, blooms also are produced late in the season. See also Imperishable Collection on this page.

Alfred Colomb. Carmine-crimson. A grand Rose in every way. Unexcelled in habit and profusion of bloom.

Baron de Bonstetten. Blackish crimson, vivid red shadings. Considered by many to be the finest dark crimson Rose.

Baroness Rothschild. Exquisite shade of satiny-pink. A beautiful variety.

***Black Prince.** One of the finest Roses of its class. The color is dark velvety crimson passing to intense maroon and shaded black.

***Caprice.** Soft satiny-pink, distinctly striped and dashed with white and carmine. A pretty and novel variety.

***Captain Hayward.** Bright scarlet. Outer petals finely reflexed, while the center petals stand up well.

***Conrad F. Meyer.** The color is a pure silvery-pink. Its beautiful foliage alone would recommend it as an ornamental shrub for the garden. For a flowering hedge it should take first rank.

***Coquette des Alps.** One of the best and freest-blooming of the hardy white Roses, occasionally shows blush when opening.

Eugene Furst. A grand Rose, fiery-red; flowers large and double.

***Francois Levet.** A profuse bloomer. The flowers are large, double and deep rosy-red, the shade known as "cherry-rose."

***J. B. Clark.** Brilliant crimson with intense scarlet lights on the upper surfaces. It is very fragrant, fine foliage.

John Hopper. Bright rose with carmine center, large and full, esteemed by all who grow it.

Marshall P. Wilder. Cherry-rose, mingled with carmine.

Margaret Dickson. White with pale flesh center; extra large flower of fine form and substance. A beautiful variety.

Mme. Gabriel Luizet. Light satiny-pink. One of the best garden Roses.

Mme. G. Bruant. Pure white. Rugosa foliage. Valuable for hedges, hardy and ever-blooming.

***Mme. Masson.** Rich carmine-crimson; very large and full. A very striking and attractive variety, highly perfumed.

***Mme. Plantier.** Pure white, blooms in clusters fairly covering the plant. A fine cemetery Rose.

Mrs. Sharman Crawford. Beautiful pink. Splendid habit and grand flowers.

Persian Yellow. Hardy yellow Rose.

Prince Camille de Rohan. Dark crimson maroon, fiery red shadings.

***Roger Lambelin.** A striking variety; dark glowing crimson with an irregular white band on the edges of the petals.

***Spencer.** Beautiful satin-pink; full and compact; deliciously fragrant.

***Summer Queen.** A beautiful light pink Rose, very free blooming, fine long stems and very few spines.

Price, Extra Selected Plants growing in 5 and 6 inch pots, 60c. each, \$6.00 per doz. Second grade of the above, fine plants, 50c. each, \$4.50 per doz. Full set of 36 sorts, which includes the above 24 and also the Imperishable Collection of 12 "Extra Selected" plants for \$18.00, second grade for \$13.00. We can supply 3d size plants from 3-inch pots on their own roots of those marked * 15c. each, \$1.50 per doz.

The Bountiful Collection OF 12 EVER-BLOOMING ROSES

This is a grand collection of ever-blooming roses, and they are perfectly hardy in this latitude if protected in winter.

Col. R. S. Williamson. Habit splendid, long stems, erect flowers, luxuriant dark green foliage. Flowers are satin-white, blush center, very large and of perfect form.

Florence Pemberton. Creamy-white suffused pink, with edges of petals occasionally flushed peach; flowers large, full, perfect in form, with very high, pointed center. A fine summer blooming rose.

Gruss an Teplitz. The color when first opening is a dark, rich crimson; as the flower opens it discloses bright scarlet, shading to fiery-red. The flowers on well-grown plants are large and full, very showy and handsome. It is a prodigious bloomer, and remarkably vigorous.

Laurent Carle. A fine Hybrid Tea Rose. It is a vigorous grower of erect, branching habit and splendid, dark green foliage. The buds are beautiful and they expand into large flowers of perfect form. The color is a brilliant reddish-carmine. It has a delightful fragrance.

Mrs. David Jardine. A charming variety which won a reputation as a winter-forcing Rose. In the garden it stands out amongst pink Roses by reason of its fine habit. The color is bright rosy-pink shading to rich salmon-pink on the outer petals. A strong grower, free-flowering; richly fragrant.

Mlle. Francisca Kruger. A favorite Rose for the garden. The coloring is strikingly handsome, a blending of deep yellow with copper-yellow, pink and buff shadings. Fine buds and splendid flowers which remain in condition a long time.

My Maryland. The color is soft salmon-pink which lightens up beautifully as the flowers expand. Under artificial light it is even more beautiful than in the daylight. The growth is splendid and the foliage large and abundant. It is strongly perfumed.

Pink Maman Cochet. The buds are a beautiful pink, the color is held in the open flower. The flower stems are long; the buds and flowers are held erect, and it is delightfully fragrant.

Renee Wilmart Urban. One of the best of the new Hybrid Tea Roses for garden culture. It is a strong, clean grower, fine stems and foliage, flowers held well up. The color is a beautiful shade of salmon-flesh, the edges of the petals bordered and tinted carmine; delightfully fragrant.

Souvenir du President Carnot. Flowers very large, double to the center, and expanding beautifully. Technically described, it is a rosy-flesh, very soft in the center, and shaded with a lighter flesh at the end of the petals.

Souvenir de Pierre Notting. The flowers are full and extraordinarily lasting. The buds are long and beautiful. The color is yellow with delicate Chinese pink and saffron shadings; the center is a rich golden-yellow. It is delightfully fragrant.

White Maman Cochet. This is the ideal hardy, white, ever-blooming Rose. It is a pure white "sport" from "Maman Cochet," inheriting all its fine qualities. The buds are long and pointed, opening gracefully; the expanded flowers are full and firm.

SPECIAL OFFER—The "Bountiful" Collection of 12 Roses 1st size, \$5.00; 2d size, \$3.50; 3d size, \$1.50. Single plants of any of the above, 1st size, 50c.; 2d size, 35c.; 3d size, 15c. each.

New Climbing Roses—Continued

Lucille. New blush, hardy Climbing Rose. A new variety, raised by Mr. M. H. Walsh, the raiser of our famous Jubilee. This new variety, like all of the Rosa Wichuraiana seedlings, is a vigorous grower with beautiful glossy foliage, free from the diseases which affected the old type of Climbing Roses. The very double flowers are borne in great clusters and literally cover the plants when well grown. The color is a beautiful light blush, very charming.

Price, 1st size, 75c. each; 2d size, 60c. each, \$6.00 per doz.; 3d size, from 3-inch pots, 25c. each, \$2.50 per doz.

White Dorothy. The snow-white Climbing Rose. A pure white "sport" from Dorothy Perkins. It has the same wonderful profusion of bloom, equally free from disease, and it has the same delicate fragrance.

Price, 1st size, 50c. each, \$5.00 per doz.; 2d size, 30c. each, \$3.00 per doz.; 3d size, from 3-inch pots, 15c. each, \$1.50 per doz.

FOR OUR COMPLETE LIST OF ROSES SEE PAGES 129 TO 148 IN OUR CATALOGUE "EVERYTHING FOR THE GARDEN" FOR 1916

From PETER HENDERSON & CO., 35 and 37 CORTLANDT STREET, NEW YORK

EVERYTHING FOR THE LAWN AND GOLF COURSE

PETER HENDERSON CO. give no warranty, express or implied, as to description, quality, productiveness or any other matter of any Seeds, Bulbs or Plants they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are at once to be returned.

PETER HENDERSON & CO.

Parcel Post Zone
from N.Y. City

Route shipped by _____, Date shipped _____ 1916.

In _____ Pkgs.; _____ Bundles; _____ Boxes; _____ Crates; _____ Baskets; _____ Bbls.; _____ Bags

The following articles will be sent later _____

Laid out by _____; Checked by _____; Reply required by _____

(PLEASE DO NOT WRITE IN THIS SPACE.)

Total Amount of Order,

ADD POSTAGE FOR GOODS WANTED BY PARCEL POST.
We offer in this Catalogue, tools and accessories, odorless fertilizers, insecticides etc.—that may be forwarded by U.S. Parcel Post, but extra for postage calculated by the "Zone Rate," see page 36, must be added to the amount of the order

LIBRARY
 JUN 14 1920
 U. S. Department of Agriculture

HOW TO MAKE A LAWN—Continued

GRADING. One of the first conditions for a perfect lawn is, that the land be perfectly drained either naturally or artificially. If the subsoil is sand or gravel, so the water can quickly pass through it, then there will be no need for artificial drains, but if there is a stratum of adhesive clay for a subsoil then drains are indispensable every fifteen or twenty feet. As the formation of the lawn is the foundation of all subsequent operations, it is imperative that it be carefully done; for if badly done at first it cannot be changed or altered, unless to the great detriment of trees or shrubs that have been planted or flower beds or walks that have been laid out.

The first thing to be done is to get the ground shaped to the desired grade, taking care in grading that when hills or rocks are removed, sufficient subsoil is also removed to be replaced with top soil, so that at least five inches of good soil will overlay the whole in all places; and where trees are to be planted there should be twice that depth of good soil. When the grading is finished, if the nature of the ground requires it, drains should be laid where necessary; then the whole should be thoroughly plowed, a subsoil following in the wake of the common plow, until it is completely pulverized. A heavy harrow should then be applied until the surface is thoroughly fined down; all stones, roots, etc., should be removed, so that a smooth surface may be obtained. We have used, with great effect and saving of labor the "Imported Scotch Chain Harrow," which fines and levels the land equal to a steel rake; and wherever large areas are in preparation for lawns, or in fact for any field culture, requiring a fine smooth surface, this implement will be found to be of great value.

For small plots, of course, digging, trenching and raking must be done instead of plowing, subsoiling and harrowing, and the surface after sowing should be patted down with the back of a spade or rolled with a roller.

FERTILIZING. The question of fertilizers for the lawn is an important one. Perhaps the best way to apply *well-rotted* stable manure is to spread it thick enough to cover the ground after plowing or digging, and then harrow or rake it in. Though a little more costly, the best plan to insure permanency for the lawn is to use from 1,500 to 2,000 lbs. per acre of coarse Ground Bone (see page 14) or better still, about the half the above quantity of bone and the other half of the Henderson Lawn Enricher, or in that proportion over lesser areas. The bone decomposes slowly, giving lasting enrichment; while the Lawn Enricher gives immediate results, the combination of these two fertilizers is perfect in effect, insuring a "velvet lawn," under ordinary circumstances, for several years without further application of manure. To insure even distribution, the fertilizers could be applied in the manner recommended for sowing lawn seed on this page. The quantity of fertilizer required for each 8 ft. x 8 ft. square is 2½ lbs., or 25 lbs. for 10 squares.

When the land has not been fertilized before sowing, it is necessary to use top-dressing of manure each season to keep up the fertility of the lawn, and nothing is better for this purpose than *well-rotted* short stable manure to spread over it late in the fall (November or December) enough to partially cover the surface. On no account should *fresh* stable manure be used, or the lawn will be very apt to be ruined by the introduction of weed seeds. This should be allowed to remain on until such time as the grass shows signs of starting in the Spring, when the rough portion should be raked off and a heavy roller applied, so that the surface of the lawn be rendered

smooth and firm for the mower. If the top-dressing of *well-rotted* stable manure has been omitted in the Fall, fine bone dust mixed with finely sifted wood ashes, in equal parts, may be sown on the lawn about as thick as sand is usually strewn on the floor, and rolled down, and we advise that the lawn be rolled several times during the Spring.

SEEDING. In the latitude of New York the seed may be sown any time from March 20th to June 20th. If the ground has been well prepared, and the weather is not too dry, a good lawn will be in evidence in 3 to 10 weeks time. Under very congenial conditions, new lawns are often ready for mowing in 6 weeks from sowing, and we have received hundreds of letters from customers announcing that 4 weeks from sowing their lawn was ready for mowing. When seed is sown during the hot months of June and July a sprinkling of oats may be sown at the same time to protect the young grass from the sun, but water must be used copiously or failure is likely to result. Lawns are also sown during the fall months from August 20th to October 15th with excellent results.

Sow the seed on the newly raked or harrowed surface, but do not sow on a windy day or much of the seed will be lost. Also do not sow seed when the soil is wet, or much is lost during the necessary rolling, and besides the perfect level desirable will be destroyed.

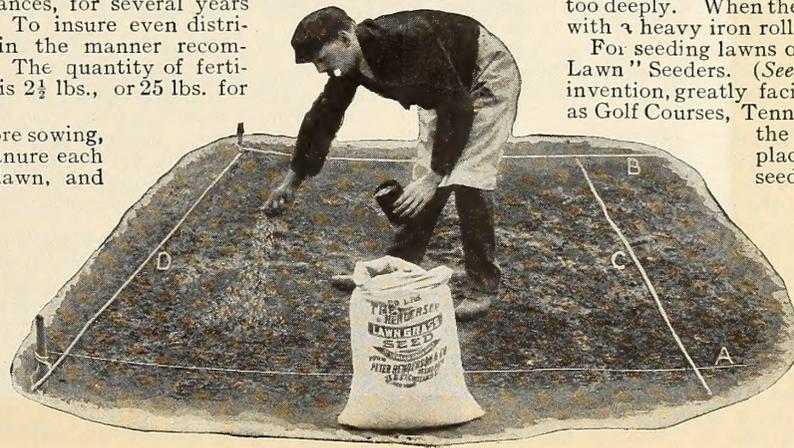
THE BEST METHOD OF SOWING. We illustrate on this page a method of sowing which will enable the operator to avoid sowing the same place twice and also prevent him missing any part of the ground.

The two garden lines A and B are stretched across the plot—the ends being attached to stakes. The lines are placed 8 feet apart. Then the rods C and D are laid across, these also being 8 feet apart. The space thus enclosed 8 x 8 feet is then sown with seed, and the rod D is lifted and placed 8 feet in advance of C, and that space is also sown. The rod C is lifted and placed 8 feet in advance of D and so on until the entire width has been sown. Then line A is lifted and placed 8 feet the other side of line B, the rods are again placed in position another strip is sown, and so on until the lawn is completed. For each square about a pint of seed should be used, if quick results are desired. Less than this is usually allowed viz. 1 quart to 300 square feet, or 5 bushels to the acre, but there is no arbitrary rule. After all the seed is sown cover with soil about ¼ in. deep. This may be accomplished by raking the surface first in one direction and then in an opposite one. Do not bury the teeth of the rake too deeply. When the raking is finished roll the ground thoroughly with a heavy iron roller, also in two opposite directions.

For seeding lawns of large area we advise the use of the "Velvet-Lawn" Seeders. (See page 15). These valuable machines, of recent invention, greatly facilitate the seeding of extensive grounds, such as Golf Courses, Tennis Courts, Putting Greens, etc. There is also the "Velvet-Lawn" hand-power for use on smaller places, which is wonderfully efficient, putting the seeds into old sod or newly prepared ground with great evenness whether the day be windy or not.

QUANTITY OF SEED REQUIRED.

As a guide for the proper quantity of seed required to form a perfect lawn, we may state that one quart of Lawn Grass mixture is sufficient to sow an area of 20 feet by 15 feet—300 square feet—or to cover an acre five bushels will be required. It should be borne in mind that in order to produce the best results, grass seed for lawns should



HOW TO MAKE A LAWN—Continued

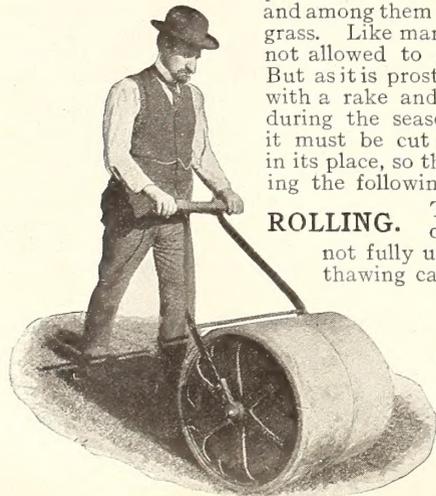
be sown thickly. In a lawn of about [an acre in extent, which we made, six bushels of the "Henderson" mixture were sown on the 25th of April harrowed well in, then rolled firmly with a heavy iron roller—the result was that by July 1st, or about sixty days from the date of sowing—a perfect lawn was obtained, having had to be twice mowed previous to that date.

MOWING. The young grass will be up in about a week if sown in the fall, and in about two weeks if sown in the spring, depending of course upon the prevailing weather. When the grass is nearly two inches high, it should be rolled with a light weight roller, to firm the soil, and when over 2 inches in height it is ready for the lawn mower.

The knives should be set high for this first cutting, so as not to cut it off too close to the ground. The best machine on the market is the "Henderson Ball-Bearing Lawn Mower" (see page 16). From this time on until growth is retarded in the fall, the lawn should be regularly mown every week, so as to induce the grass to spread out over the surface, instead of growing up tall and leaving bare spots. Any bare spots should be repaired as soon as observed, by scratching the ground, putting in a handful of seed and covering in the usual way. When a lawn is mown regularly the clippings may be left on, and as the sun soon shrivels them up they never appear unsightly, also they protect the roots of the young grass from the hot sun.

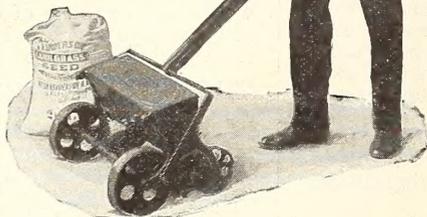
If the grass is allowed to get long then the clippings should be raked off or caught in a grass-catcher which may be attached to the mower. In the early stages of the growth of a lawn, it will be found very beneficial to top-dress it, by scattering broadcast a compost of sifted soil and sand and the "Henderson Lawn Enricher" using 25 lbs of the latter to a cartload of the former. It often happens that the soil contains weed seeds of various species and among them crab-grass, known also as five-fingered grass. Like many of the others this is annual, and if not allowed to seed, may ultimately be eradicated. But as it is prostrate in growth it should be loosened up with a rake and the scythe used two or three times during the season. Whatever means are employed it must be cut out, and lawn grass seed thickly sown in its place, so that it will not be able to obtain a footing the following year.

ROLLING. The benefit derived from using a roller on the lawn, especially in the spring is not fully understood. The action of freezing and thawing causes the ground to heave, and we may sometimes see hardy plants so forced up that their roots are destroyed. A lawn is just a collection of millions of little plants and they suffer in the same way unless the ground is firmly pressed back with a roller before hot weather comes. For use on the lawn always take a "two or three section" roller, as they can be turned without injuring the grass. A 300 lb. roller is about as heavy as one



HENDERSON'S WATER BALLAST ROLLER

VELVET LAWN
HAND-POWER SEEDER



man can pull, though a 400 lb. will be better if you have two persons to operate it.

(For Rollers of various kinds see pages 21, 22 and 23).

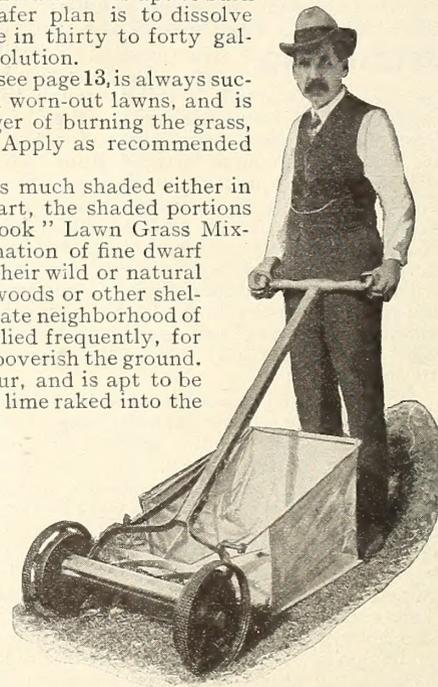
RENOVATING. To renovate lawns that have become worn out by neglect or other causes, and where it is not convenient or desirable to renew by plowing up, they may be greatly benefited by first mowing the grass as closely as possible. Then top dress with the "Henderson Lawn Enricher" using 1½ pounds to every square of 9 ft. x 8 ft. or a 5 lb. package for 4 spaces. This must be well raked in, or if the lawn is large, harrowed in, with a light steel harrow, so as open up the soil. Unless this is done the roots of young grass cannot penetrate the old soil. Sow over the raked surface about half the quantity of Lawn seed used in sowing a new lawn. After sowing the surface should be harrowed or raked over, and firmly rolled or beaten down, but if spurious grass or other weeds have got possession of lawn, then this way of renovation would not be satisfactory, and it had better be plowed under and sown afresh, in the manner already given for the formation of the lawn.

STIMULATING. Where very quick results are required, or in case a lawn is becoming bare or patchy in spots, caused by wear and tear or otherwise, the grasses may be forced into a quick growth by applying Nitrate of Soda at the rate of 100 lbs. per acre. If put on in the dry state it should be applied just before a shower, otherwise it is apt to burn the grasses; but the safer plan is to dissolve one pound of the nitrate in thirty to forty gallons of water and sprinkle with the solution.

The "Henderson Lawn Enricher" see page 13, is always successful in inducing a new growth on worn-out lawns, and is much safer to use, there being no danger of burning the grass, whether used in spring or autumn. Apply as recommended in "Renovating" above.

SHADY LAWNS AND TERRACES. When a lawn is much shaded either in whole or in part, the shaded portions should be sown with the "Shady Nook" Lawn Grass Mixture, (see page 7) which is a combination of fine dwarf growing evergreen varieties, which in their wild or natural state are to be found growing in the woods or other sheltered or shaded spots. In the immediate neighborhood of large trees, fertilizers should be applied frequently, for the trees absorb the fertilizer and impoverish the ground. Ground much shaded is frequently sour, and is apt to be covered with moss. An application of lime raked into the soil is an excellent corrector and sweetener, but the moss should be first cut off with a scuffle hoe and then thrown away.

On terraces it is often necessary to use sod, as the rains wash the soil off before the grass seed has time to germinate. The "Terrace Sod" mixture which we offer is composed of deep-rooting grasses, which, if once established, will hold the soil and prevent washing, and we advise liberal fertilizing and seeding so that the grasses may be quickly established.



THE HENDERSON BALL-BEARING LAWN MOWER

GOLDEN OPINIONS

ATTEST ITS SUPERIORITY

It Is Used and Praised by Thousands from the Atlantic to the Pacific.

"We are delighted with the results from the 80 pounds of 'Henderson' Lawn Grass Seed we have used, and our lawns are looking fine. We will have the grounds look charming after planting the next two bags. Please send four bushels more."

Mrs. CHARLES L. BRODT, McLean, Va.

"I used The 'Henderson' Lawn Grass Seed last year on my new lawn and the results were most gratifying. The most pleasant part of it all was that there were no weeds to dig out of the lawn planted with your seed."

In contrast to this I might say that unfortunately I did not order quite enough seed to cover my lawn last year, and because of the lateness of the season I purchased several pounds of lawn seed from a local dealer, and easily 75 per cent. of the yield was weeds."

Dr. A. F. STOTTS, Galesburg, Ill.

"We are very much gratified to say that the seed we bought from you has turned out first class, and has given the writer a beautiful lawn."

EDGAR D. TAYLOR, Richmond, Va.

"I am very much pleased with the Lawn Grass Seed which I purchased from you this spring. I have already mown the lawn and it looks as good as my neighbor's which is three years old."

T. H. BENSON, Wyandotte, Mich.

"Last fall in October I purchased your Lawn Grass Seed. The Grass came nicely before winter set in. At present it is the admiration of passersby—very thick, soft and luxuriant. I am asked daily for information, and to help out, I drop you this, expecting you to send me a few printed circulars of information about that Lawn Grass Seed."

WM. H. ROBBINS, Beatrice, Neb.

"I wish you could see my lawn, which I planted with The 'Henderson' Lawn Grass Seed. It is wonderful. It is about two months old and you would think it is a year old. I never saw grass grow as fast as yours."

H. W. HAWMAN, Lancaster, Pa.
"Your Lawn Grass Seed made a beautiful lawn and this year you will surely receive orders from our neighbors and friends."

Miss BESSIE BAUMGARTEL, Holland, Mich.

WE HAVE THOUSANDS MORE ON FILE FROM EVERY STATE IN THE UNION.

The "HENDERSON" LAWN GRASS Seed

FOUR WEEKS FROM SOWING IT IS READY FOR MOWING

THE MOST BEAUTIFUL LAWNS IN AMERICA ARE MADE WITH The "Henderson" Lawn Grass Seed.

The "Henderson" Lawn Grass Seed has been the means of adorning innumerable American homes with what has been aptly described as the "GAIETY OF GRASS," that finishing touch to the home beautiful which is so essential and necessary—a perfect and enduring lawn. That home-owners in all parts of the United States appreciate and value at its true worth this celebrated mixture is evidenced by the large number of letters of recommendation annually received by us. A few of those sent to us during the year 1915 we print in our catalogue and as will be seen, they not only confirm our somewhat conservative claims as to the value of this far-famed lawn mixture, but go further than we have hitherto done in praise and commendation. The "Henderson" Lawn Grass Seed has been thoroughly tested by country-wide use, for more than half a century. It is the fruit of years of experience and close study of American con-

ditions, and is undoubtedly the best for the American climate.

The "Henderson" Lawn Grass Seed is composed of fine-leaved dwarf Grasses, which produce closely interwoven, deep and elastic turf that maintains from year to year lawns of enduring green, dark, rich and luxuriant. This continuous covering of verdure is obtained by including in the mixture Grasses which arrive at their best during different months of the year, one variety constantly succeeding another. It is impossible to make an enduring lawn by sowing seeds of a single variety which will only grow vigorously during a portion of the year.

The "Henderson" Lawn Grass Seed is in reality as cheap as any other, notwithstanding its superior quality. For while many mixtures on the market weigh only 14 lbs. to the bushel. The "Henderson" Lawn Grass Seed weighs 20 lbs. per bushel, being entirely free from chaff and other foreign matter. The quantity required for new lawns is 5 bushels per acre. For a plot 15x20, or 300 square feet, use 1 quart. For renovating old lawns, use one-half of above quantities. Full instructions in every bag and package.

PRICE OF THE "HENDERSON" LAWN GRASS SEED. DELIVERED FREE IN THE U. S.
 30c. per quart. 55c. for 2 quarts. \$1.00 for 4 quarts. \$1.75 per peck. \$6.00 per bushel of 20 lbs.

We Deliver quarts and pecks FREE in the U. S. by Parcel Post or Express at our option.
 Bushels we deliver FREE by Parcel Post, Express or Freight at our option.



GOLDEN MEDALS

MARK ITS TRIUMPHS

but we value still more the enthusiastic praise of our customers.

"My lawn is the finest in town. I made it 25 years ago and got the seed of you. No velvet carpet is softer. I use hardwood ashes and phosphate twice a season, and in early spring sow broadcast The 'Henderson' Lawn Grass Seed, and roll it.
D. R. SMITH, Adams, Mass.

"I am becoming firmly convinced that there is but one good grass seed, Henderson's Lawn Grass Seed."
NATH'L. R. BRONSON, Waterbury, Conn.

"Wish to say that I had great luck with your Lawn Grass Seed last year. It was O. K. Had fine lawn in about six weeks from time of planting. Could have mowed it with lawn mower had I wanted to."
J. C. BARSTON, Willimantic, Conn.

"Your Grass Seed is indeed a wonder, both for quick growth and for beauty."
C. N. LAWS, Rapid City, S. D.

"The 'Henderson' Lawn Grass Seed is the best that ever came to Deadwood."
W. J. THORNBY, Deadwood, S. D.

"Your Lawn Grass Seed has given great satisfaction in the past, and we are desirous of continuing its use."
LIVINGSTON MANOR CORP., New Brunswick, N. J.

"I am highly pleased with the Lawn Grass Seed. In my opinion it is the best I have ever used."
PETER LANE, Sedalia, Mo.

"I would like you to mail me your catalogue containing description of your Lawn Grass Seed. I have used it for the past two years and all who have seen it say it is the finest looking lawn in this city."
THOMAS A. LEE, 112 Walcott St., Pawtucket, R. I.

"Really can't get along out here without Henderson's Lawn Grass Seed. Two years ago I sowed my lawn with your seed. It is far ahead of anything else in the neighborhood."
HERBERT HUNT, 3730 No. 28th St., Tacoma, Wash.

"The 'Henderson' Lawn Grass Seed used on my lawn is 'Dandy' and I have a lawn as smooth and velvety as a carpet."
CHAS. E. MASON, Birmingham, Ala.

"The Lawn Grass Seed I purchased from you last spring did fine. I have a fine set of grass on my lawn and am well pleased."
J. J. NELSON, Palmyra, Mo.

LAWNS AT FAR HILLS, N. J.
MADE WITH THE
HENDERSON LAWN GRASS SEED

THE HIGHEST AWARDS

In the Gift of the Judges Has Invariably Been Won by the Lawns Made With

The "Henderson" Lawn Grass Seed

Besides its country-wide use on the home grounds of the people The "Henderson" Lawn Grass Seed has invariably been chosen to produce lawns at the International Expositions held in the United States—notably the Centennial at Philadelphia, the Columbian at Chicago, the Pan-American at Buffalo, the Lewis & Clark at Portland, and the Jamestown at Norfolk. At all these great industrial congresses it has been our privilege to furnish the emerald setting for many of the beautiful edifices designed by the great architects of the world.

The brilliant color scheme adopted for these

buildings—white, red and yellow—made these spacious green lawns most acceptable and restful to the eye, attracted the attention of every visitor and helped to make The "HENDERSON" LAWN GRASS SEED famous throughout the country.

As is usual at all these great undertakings everything was delayed to the last moment, and we were required to produce the lawns in a few weeks' time. We successfully accomplished this in from four to six weeks and as the superintendent of grounds at the Jamestown Exposition remarked, "It was a miracle in lawn making."

PRICE OF THE "HENDERSON" LAWN GRASS SEED

Delivered free in the U. S. by Mail Freight } 30c. per qt.; 55c. for 2 qts.; \$1.00 for 4 qts.;
or Express at our option. } \$1.75 per peck; \$6.00 per bushel of 20 lbs.

THE
HENDERSON
LAWN GRASS
AWARDED
Gold Medals
AT THE
COLUMBIAN
Pan-American
AND
JAMESTOWN
Expositions

Home Owners in All Parts of the United States Tell of the Beautiful Lawns Made With THE "HENDERSON" LAWN GRASS SEED.

"I want to express to you the satisfaction I have found with your Lawn Grass Seed. I planted the seed February 23rd, and by June 1st it had been mowed four times, and is a beautiful plot of grass. It is absolutely free from weeds, and as you represent. Next year I want my whole lawn planted with it."
June 2nd, 1915. Mrs. L. W. WORSHAM, Corinth, Miss.

"About fifteen years ago I bought some lawn seed of you and followed your instructions and had the best lawn in the City. I have a small lawn to fix up this year part new and part old, and want some more seed that will grow quick and make a nice lawn."
Feb. 24st, 1915. E. K. CALLAHAN, 142 Winspere St., Buffalo, N. Y.

"The grass seed I bought from you some time ago is fine and dandy and a treat to look at. I have as fine a lawn for the first year as there is in the City and that is saying something."
June 19th, 1915. WILLIAM JONES, 64 Kulp St., Wilkes Barre, Pa.

"The lawn grass seed which you sent about April 15th was sowed immediately following its receipt, and is now up. It gives promise of producing a good lawn, something for which I have been striving for three years."
May 1st, 1915. H. J. SAVAGE, 1227 Girard St., N.E., Washington, D. C.

"We cut our lawn grass six weeks from planting. It's some seed."
June 12th, 1915. Mrs. FORDHAM, 1229 Charlevoix St., Detroit, Mich.



"They can all talk about lawn seed, but there is none that can come up to yours. I have tried many kinds and yours can't be beat."
April 3rd, 1915. GUS J. KRAEMER, Hazel Crest, Illinois.

"In the early Spring we used about six bushels of your lawn grass seed with excellent results."
June 26th, 1915. HUDSON COUNTY HOSPITAL, Secaucus, N. J.

"Late this Spring I purchased some of your lawn grass seed for my yard, and must say that I was agreeably surprised at its rapid growth and beauty. Same was not sowed until late, but I have the prettiest lawn in town."
July 23rd, 1915. S. W. PICKENS, Hendricks, W. Va.

"Your Lawn Grass has certainly been very satisfactory. I gave you an order this spring, and certainly have a beautiful lawn now. Just about three weeks ago now I recommended your Grass Seed to Mr. Levi Plank, who sent you an order in consequence, and he now actually has grass at least two inches high. Your grass is certainly the thing for Kansas."
Oct. 10th, 1915. FRED L. TAYLOR, Lyons, Kansas.

"I saw one of your lawns at Brookfield, Wash., and it was fine."
April 13th, 1915. LUMAN R. WING, 326 W. Madison St., Chicago, Ill.

"In your catalogue you say 'Four weeks from sowing, ready for mowing.' Well, after having my house built a year ago last summer I sent for some of the Henderson Lawn Grass Seed. Then I had the grading done with ordinary sandy loam and sowed the seed about the middle of August. In 21 days from the time of sowing I had to mow it. No one around here ever saw the like before."
Jan. 8th, 1915. CHESTER PLEIVES, 255 Simcoe St., London, Ont.

"Last Spring I bought the 'Henderson' Lawn Grass Seed. I had to wait sowing it until late in the Spring on account of waiting for the cement sidewalk. Two days after it was in we had a fine shower, and within five weeks I went over it with the lawn mower. During the summer which was very dry I thought it would surely be killed, as I was away for five weeks and no one looked after it. When I came back there were several places that looked dead, but they revived after a shower, and the lawn has grown luxuriant ever since. Many in town admire the lawn very much, and I suppose that you have their orders by this time."
Feb. 19th, 1915. REV. MARTIN OSSEWAARDE, Sioux Center, Iowa.





HENDERSON'S "TOUGH TURF" GRASS SEED.

For Tennis Courts, Croquet Grounds, Bowling Greens, etc.
It Quickly Forms an Indestructible Turf.

SMOOTH, FIRM, ELASTIC, STANDING WEAR AND TEAR OF OUTDOOR GAMES.

Under congenial conditions it will be ready for mowing four weeks from sowing, and in six weeks ready for playing.

Henderson's "Tough Turf" Grass Seed is a blend of Grasses especially suited for the making of Grass tennis courts, croquet grounds, bowling greens, etc. The turf required for outdoor sports must be closely interwoven, firm, elastic, smooth, and durable to stand the wear and tear. These requirements are met in Henderson's "Tough Turf" Mixture, which is composed of fibrous, deep-rooting Grasses that spread and intermingle. The seeds are blended in the proper proportions to form and maintain a tough, matted sward, constantly green, even in dry weather. These varieties of Grasses being low-growing and fine-leaved, require to be sown liberally if a playing turf is desired quickly; not less than one quart should be used for 300 square feet, or five bushels per acre although fifty per cent more may be used with advantage. Half that quantity will do for renovating. (See engraving.)

Price, delivered free in the U. S., 30c. qt., \$1.00 for 4 qts., \$1.75 pk., \$6.00 bu. of 20 lbs.

"I have a Tennis Lawn of your beautiful 'Tough Turf' Grass seed mixture. It attracts the attention of every passer by, for it is indeed a beauty."
L. A. RICHARDSON, Marine, Ill. May 25th, 1915.

"I purchased some 'Tough Turf' Grass Seed Mixture from you last year. It succeeded admirably, and is very beautiful, keeping green all the year round."
HART. F. SMITH, Ileton, Cal.

Henderson's "Sunny South" Lawn Grass Seed.

It is especially prepared for the South, and contains all the best grasses that are by nature adapted for hot, dry situations. In the South, Bermuda Grass is frequently used, but it remains green only in the summer months, turning brown in winter, but by using this mixture, and with some care and attention to watering an all-the-year-round lawn can be maintained in the Southern States where grasses do not usually thrive.

Price, delivered free in the U. S., 35c. qt., \$1.25 for 4 qts., \$2.00 pk., \$7.00 bu. of 20 lbs.

A GREEN LAWN IN TEXAS

"At my former home at El Paso I had a lawn of your Sunny South Lawn Grass Seed which under irrigation produced the heaviest lawn I ever saw, necessitating cutting three times weekly in order to make it look trim. I use your Ball-Bearing Lawn Mower."
L. H. VANDERWERT, Willcox, Ariz.

Henderson's "Seaside" Lawn Grass Seed.

Along our seacoast there are many beautiful summer homes and resorts with such sandy saline surroundings that a turf of the favorite lawn Grasses cannot be produced. Our "Seaside" mixture will make a good turf of green on sand, though, of course, the sand must be top-dressed with not less than 2 inches of soil before even our "Seaside" Grass Seed is sown, to enable the young Grass to get a start, after which the long roots—peculiar to the varieties we use in this mixture—drive down deeply in the sand. Attention must be given to sprinkling during dry weather. Use not less than one quart for 300 square feet; 5 bushels per acre.

Price, delivered free in the U. S., 25c. qt., 85c. for 4 qts., \$1.50 pk., \$5.00 bu.



HENDERSON'S

"Shady Nook" Lawn Grass Seed.

On nearly all lawns there are unsightly bare spots under the shade of trees, which have baffled all efforts to get into Grass, but with this mixture there need be no further difficulty. It is a combination of fine, dwarf growing, evergreen varieties, which in their wild or natural state are to be found growing, in the woods or other sheltered and shaded spots. Ground that has been densely shaded by trees is frequently "sour," and if the drainage is defective it is apt to be covered with moss and coarse bog Grasses. In such cases an application of slaked lime, at the rate of one bushel to each thousand square feet, or forty bushels to the acre, is an excellent corrective and sweetener but the moss should be first removed by the use of a sharp rake.

Price, delivered free in the U. S., 35 cts. qt., \$1.25 for 4 qts., \$2.00 pk., \$7.00 bu. of 20 lbs.

"The popular opinion of many is that grass will not grow under the dense shade of the Magnolia tree and I was always of that opinion until I tried your Shady Nook seed. I now have a fine green grass plot and I need not tell you how much it adds to the appearance of the front of my residence." Dr. EDWIN BENTLEY, 113 East Capitol Ave., Little Rock, Ark. May 24th, 1915.

HENDERSON'S

"Terrace Sod" Lawn Grass Seed.

This is a special mixture of grasses best suited for sowing on terraces, embankments and hill-sides. These varieties push forth deep, strong, spreading roots; that bind the soil firmly into a compact turf, which will withstand the heaviest rains. They are all hardy grasses, enduring long periods of drought, they thrive on shallow soils, and can be relied upon to produce a rich velvety-green turf of fine leaved grasses throughout the season. The great difficulty to be overcome in getting grass established on slopes is to prevent rains washing out the young grass before it is thoroughly rooted. To prevent this, place a continuous run of ten inch boards, set on edge and held in position by stakes, along the crest of the hill. This will check and turn the water to a great extent.

Price, delivered free in U. S., 35c. qt., \$1.25 for 4 qts., \$2.00 pk., \$7.00 bu. of 20 lbs.

WHAT CUSTOMERS SAY OF HENDERSON'S "TERRACE SOD" LAWN GRASS SEED.

"From your Terrace Sod Seed last year I had the finest sod on Terraces you ever saw."

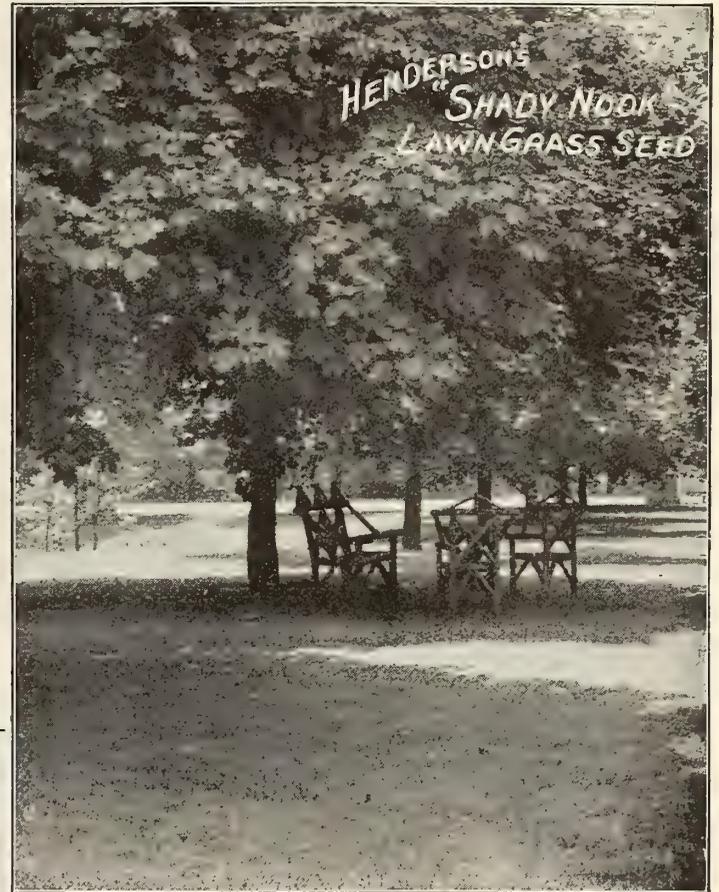
O. M. KIMMEL, Grafford, Pa.
Feb. 16th, 1915.

"It affords me great pleasure to state that I have been using Henderson's Shady Nook Lawn Grass Seed under Magnolia and Maple trees for many years with great success. I put on a fresh supply of seed each year and then fertilize it."

Mrs. J. H. McFERRIN.
Jan. 4th, 1915. Collierville, Tenn.

"The Terrace Sod Lawn Grass Seed I had from you last year does well indeed. It holds the soil firmly."

I. H. STEPHENS,
Riverton, Conn.



The International Polo Games

At Meadowbrook, L. I., June 13th and 17th, 1914, were played upon turf produced with the

Henderson "Athletic Field" Grass Seed Mixture.

Its rich dark velvety-green was the subject of admiring comment of thousands. The illustration is from photos taken at Meadowbrook on the occasion of the famous international match between picked teams representing America and England. The Polo Field and the various lawns at Meadowbrook were originally laid down with the Henderson "Athletic Field" Grass Seed Mixture and have been renovated from time to time with the same mixture. The superintendent has thus been able to maintain at all times a close, compact turf of dark emerald-green (see his testimonial printed below) which has aroused the admiration of thousands. The oblong picture is a view of the grounds being prepared for the game by mowing the Grass with a power mower, which at the same time rolls and smooths the surface. The Grass cuttings were removed later by a small army of men with rakes, leaving a perfectly clean turf. In the circle is a photo of an incident at the opening of the second game, showing a group of the principal players in action.

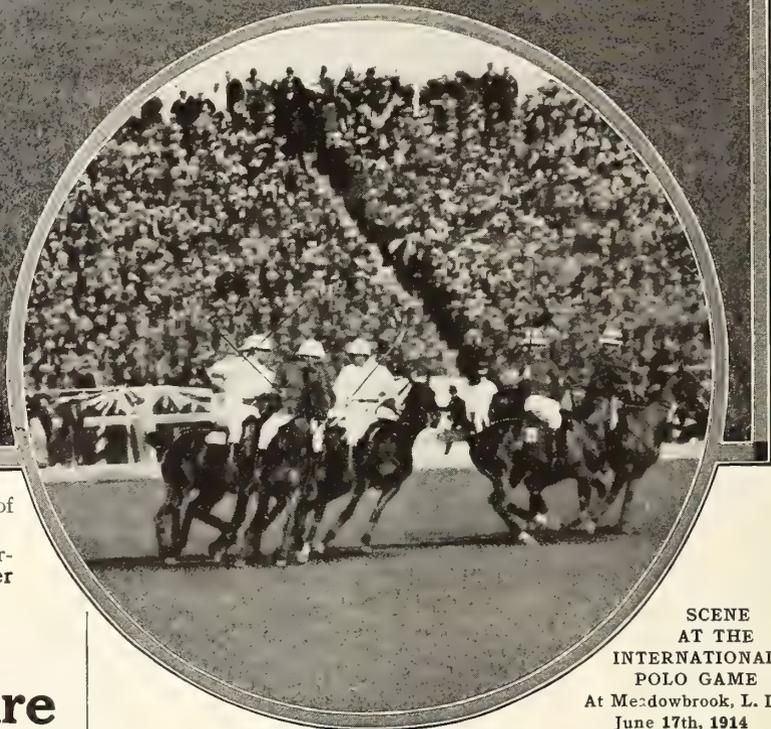
THE NEW YORK TIMES of June 17th, 1914, describing the contest and the surroundings, says in part, "The crowd was larger than on the first day, and sat tier upon tier around the rolled field which looked for all the world like a great strip of green velvet."

HENDERSON'S

"Athletic Field" Grass Seed Mixture

FOR BASEBALL, POLO AND CRICKET GROUNDS, ETC., ETC.

is a special blend of deep-rooting, fine-leaved, turf-forming Grasses, especially suited for Baseball Grounds, Polo Grounds, Cricket Grounds, etc. This mixture forms a thick, strong, enduring turf that will stand any amount of hard usage without showing wear and tear. It grows quickly, and if soil and conditions are at all favorable with attention to rolling and mowing, should be ready for hard use in eight weeks from sowing. The refreshing green and the close turf—which have attracted the attention of hundreds of thousands of patrons of the principal Baseball Parks and Polo Grounds of the country—were produced by this special mixture of **The Henderson Grass Seed.** Among others we may mention the Polo Grounds at Meadowbrook, where the famous international match was played last June, Newport, Lakewood, Rockaway Hunt, Saratoga, also some of the leading Baseball Parks in the country including the Polo Grounds in New York, Ebbets Field and Washington Park in Brooklyn. (See engraving.) Sow 100 to 150 lbs. per acre according to soil conditions. Price, delivered free in the U. S., per lb., 30c.; per 100 lbs., \$25.00.



SCENE
AT THE
INTERNATIONAL
POLO GAME
At Meadowbrook, L. I.
June 17th, 1914

A 14-YEAR TEST PROVES ITS VALUE

"Our Polo Grounds and lawns at Meadowbrook were laid down about 14 years ago with the special mixture of THE HENDERSON "ATHLETIC FIELD" GRASS SEED MIXTURE and we have renovated them from time to time with the same mixture. We would not use any other brand. The condition of these grounds at all seasons of the year is the best possible testimonial to the value of your seed. For forming a springy, yet compact turf, that will withstand the hard usage incidental to the game of polo, it is all that can be desired."

JAMES McCROSSAN, Superintendent, Meadowbrook Club, L. I.

YOUR GRASS SEED MADE OUR CRICKET COURSE FAMOUS

"I have had from you at different times many bushels of 'Henderson's' Special Grass Seed Mixture for use on Cricket Grounds and it has always given excellent satisfaction. In Lawrence we used it on the Merrimack Cricket Club Grounds, and the course had a good name all over the State. Since I have been connected with the Mohair Cricket Club, in Lowell, we have used the same seed with the same result, that our wicket is considered the best in the State."

JOS. W. HARRISON, Lowell, Mass.

**HENDERSON'S
GOLF COURSE
GRASS SEED**

**FOR FAIR GREENS AND PUTTING GREENS
IS USED ON THE
CHAMPIONSHIP COURSES**

**The finest Courses in America to-day are those
on which Henderson's Grass Seed
has been used.**

Among which we mention.

- Essex County Country Club..... N. J.
- Chicago Golf Club..... Ill.
- Chevy Chase Country Club..... D. C.
- St. Andrew's Golf Club..... N. Y.
- Philadelphia Country Club..... Pa.
- Shinnecock Golf Club..... N. Y.
- Eagle Nest Golf and Country Club..... N. Y.
- Essex County Club..... Mass.
- Garden City Golf Club..... N. Y.
- Hackensack Golf Club..... N. Y.
- Ardsley Golf Club..... N. Y.
- Tuxedo Golf Club..... N. Y.
- Portland Golf Club..... Ore.
- Spokane Golf Club..... Wash.
- St. James' Club..... Montreal, Can.
- Royal Montreal Golf Club..... Can.
- Quebec Golf Club..... Can.
- Merion Cricket Club..... Pa.
- Westchester Country Club..... N. Y.
- Newport Golf Club..... R. I.
- Lakewood Golf Club..... N. J.
- Century Club..... N. Y.
- Knollwood Country Club..... N. Y.
- N. Y. City Public Golf Course..... N. Y.
- Salisbury Golf Club..... N. Y.
- Wilmington Country Club..... Del.
- Homewood Country Club..... Ill.
- Foxhills Golf Club..... N. Y.
- Mohawk Golf Club..... N. Y.
- Apawamis Golf Club..... N. Y.
- Lake Placid Golf Club..... N. Y.
- Richmond Country Club..... N. Y.
- Westfield Golf Club..... N. J.
- Cranford Golf Club..... N. J.
- Haworth Country Club..... N. J.
- Hollywood Golf Club..... N. J.
- Yountakah Golf Club..... N. J.



**HENDERSON'S GOLF COURSE GRASS SEED
FOR LAYING DOWN NEW COURSES AND RENOVATING OLD ONES.**

We have had great experience with, and have given much attention and close study to grasses suitable for Golf Links. When Golf first became a popular game in this country and courses were laid out, it was soon found that many grasses used with good results on European courses would not thrive in the climate of the United States.

We then made exhaustive experiments with every known variety of grass in our trial grounds at Jersey City, N. J., and we also sent samples to various sections of the country for trial and report. As a result of these experiences we made up our now well-known mixtures--**HENDERSON'S GOLF COURSE GRASS SEED MIXTURES** both for Putting Greens and Fair Greens. They are undoubtedly the best for the American climate and American conditions, being composed of thoroughly acclimated varieties, seeds of the highest germinating power only are used. Many of the finest courses in America today were laid down

with these mixtures, and with proper care the finest Putting Greens and Fair Greens in the world can be successfully rivalled. Henderson's Golf Course mixtures are made up to suit the grounds and soil to be seeded, low and wet, high and dry, sandy or clayey, as the case may be, and a description of the soil and notes on climate and the lay of the land should be sent when ordering.

Warning.—The best of seed is necessary for use on Golf Courses and all grounds devoted to sport. We deal only in the highest grades and before offering this seed to our customers for sale, it is thoroughly re-cleaned by the most modern seed-cleaning machinery in America. These are not ordinary fanning mills, but machines with an even and strong air suction—equal at all points—which is quite a different thing from a blast. By this process we are enabled to eliminate the rubbish, and light imperfect seeds, leaving only sound perfect seeds.

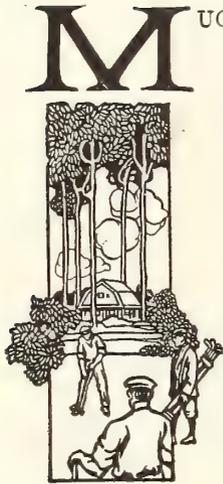
HENDERSON'S "PUTTING GREEN" GRASS MIXTURE.
Price, delivered free in the U. S., 35c. qt., \$1.25 for 4 qts., \$2.00 pk., \$7.00 bush. of 25 lbs. Sow at the rate of 5 to 8 bushels per acre according to the nature of the soil.

HENDERSON'S "FAIR GREEN" GRASS MIXTURE.
Price, delivered free in the U. S., 30c. pound, \$25.00 per 100 lbs. Sow 75 to 150 lbs. per acre according to the nature of the soil.

Please notice that we **DELIVER FREE** in the U. S. all **GOLF AND LAWN GRASS MIXTURES** (by Mail, Express or Freight at our option).

MAKING AND MAINTAINING GOLF LINKS.

BY CHARLES HENDERSON.



UCH has been written and much advice given as to the making and maintenance of golf links, particularly the most vital adjunct, putting greens. From a practical cultivator's standpoint the most essential point has been missed, which is, that the trouble with most golf links in this country is starvation.

Most of the links experts have gained their experience in Great Britain where climatic conditions are absolutely different from those that obtain here. There the cool climate and frequent showers give an abundance of good turf almost without exception. In this country with its hot, dry summers, much greater care and experience are necessary.

FIRST in the selection of a composition of grasses for the seeding that are best fitted to withstand such conditions.

SECOND frequent fertilization and watering are necessary, particularly on the putting greens, in order to sustain the grass which is weakened by the frequent cutting, heat and drouth.

One of the safest and best methods of feeding putting greens during the summer months is by means of manure water. This is easily made; four pecks of horse or cow manure with two pecks of sheep manure (or one peck of hen manure), which will suffice to make one hundred gallons of manure water; thoroughly mix and allow it to remain two days before applying.

The putting greens should first be sprinkled with plain water, then the manure water should be applied liberally by means of an ordinary watering can with a sprinkling rose on same. This operation completed, the water should again be applied so as to wash it in thoroughly. It has been well said that water is Nature's common carrier. It is, or should be, a matter of common knowledge that all plant food to be available to the growing plant must be in solution. Manure water can be applied in this way to great advantage every two weeks during the growing season. The manure in the barrel should be renewed after each application as its strength to a great extent is exhausted. Where it is not convenient to make and apply manure water a good substitute is a light dusting of The Henderson Lawn Enricher every two weeks, 14 lbs. to each putting green, average size, 60 x 60 ft., followed immediately by a thorough soaking with water.

MAKING A PUTTING GREEN. A matter of primary importance in building a Putting Green, is the character of the turf which is to form its playing surface. In the first place it is necessary that the ball run absolutely true, and this requirement renders it impossible to sow Putting Greens with the coarser grasses used for Fair Greens. These, because of their great extent, must be seeded with grasses suited to the nature of the soil and the general character of the grounds, which may be high and dry, or low and wet, or of varying forma-

tion. On the opposite page we fully describe Henderson's Golf Course Grass Seed Mixtures which have been used in laying down many of the finest courses in America. Because of the comparatively small area of Putting Greens it is quite possible to bring the soil to suit the grasses to be grown on them. The grasses for Putting Greens must be a combination of fine-leaved, dwarf grasses of interweaving habit which form firm and elastic turf. Such turf cannot be obtained by sowing one or even two varieties of grasses. There must be a mixture of six or more, with different rooting habits—some deep and others shallow rooting—so that full advantage is taken of the soil, if a constant covering of turf is to be maintained. Too often the Putting Green is made in a most haphazard manner, simply digging or plowing up the soil and giving it some fertilizer and seed on the spot desired without regard to the mechanical conditions of the soil. To obtain the best results, excavate where the Putting Green is to be made to a depth of twelve inches, if the ground is gravelly or sandy, and fill in with a compost composed of good top soil from an old pasture to which add twenty per cent in bulk of well-rotted horse or cow manure and 200 pounds of raw ground bone, all to be thoroughly mixed before filling in. In case the soil is of a clayey nature with no natural drainage, it would be well to excavate to a depth of 18 inches, filling in the lower 6 inches with broken stone for drainage. The making of Putting Greens should be done at least a month or so before the seed is to be sown so as to permit them to thoroughly settle before seeding.

REPAIRING PUTTING GREENS. The constant foot wear of greens as well as the effects of heat and drouth will, even with the most assiduous and intelligent care, cause bare spots to appear in the turf. The best way to repair such damage is to have in reserve a grass plot sown with the same grass mixture used in forming the greens. This should be prepared with the same care as the greens and, of course, attended to just as regularly. Cut out the bare spots in the greens, going to a depth of five or six inches, then fill in the excavated space with a prepared compost composed of two parts good, fibrous sod from an old pasture, a light soil is preferred, to one part well rotted stable manure. Cut out a patch of sod from the reserved plot to fit the space, firm it moderately after being put in place and water copiously. If this work is done carefully and as described, the patching will be hardly noticeable and in a few days all traces of it will disappear. The best way to prepare this compost is to put down a layer of the sod, grass side down, then a layer of the manure and repeat, having a layer of sod on top, always grass side down. After the pile is made about a month it should be turned and the sod chopped up with the spade. Two or three such turnings within a period of three months will usually be sufficient to prepare it for use. The compost should be firmed down well after being put into the space excavated and should be within two inches of the grass surface after firming. A word of caution may not be out of place regarding the position of the compost pile. It should be made on a hard bottom and where water does not lodge. Weeds should not be allowed to grow on it, for obvious reasons.

MAKING AND MAINTAINING GOLF LINKS—Continued.

RENOVATING FAIR GREENS



THE usual method is to give the Fair Greens a dressing of bone meal or chemical fertilizer at the rate of 1000 pounds to the acre; then run over it with a light cutting harrow; then sow with a renovating grass seed mixture at the rate of 2 to 4 bushels per acre, according to the condition of the course. This is then worked in with a smoothing harrow and afterwards the course is thoroughly rolled. This can be done at almost any time during the Fall. Of course the disadvantage of this is, that it interferes with the playing, and a lot of it is liable to be disturbed by the players.

Another method is to apply the grass seed and fertilizer in the manner prescribed above, only defer doing it **until just before the ground freezes up**, which in this latitude is usually about the middle of December. In this way

the golfers have the benefit of the Fall season without being disturbed, and the grass seed being put into the ground so late, it does not germinate until the following Spring, hence there is no danger of it being killed out during the Winter. Grass seed until it germinates is absolutely frost proof. Being put in this way in the late Fall it comes up with the advent of Spring. Some of the most successful grass seeding we ever saw was done by this method.

We would again strongly urge fertilization of your golf links. It is the key to success.

A HERESY. A widely circulated heresy regarding golf courses and lawns in the United States is that the best results can only be achieved by sowing "foreign" grass seeds. This is based very largely on the reputation of the links and lawns in the old country, ignoring or forgetting the different climatic conditions prevailing there and here. The fact that New York is in the same latitude as Madrid and Rome, while London is as far north as the mouth of the St. Lawrence River, and Edinburgh is about in the same latitude as the southern shore of Hudson Bay, is too often overlooked. Then again the humidity there is much higher than here, the annual precipitation much greater and the temperatures, both of Summer and Winter, more favorable for the growth of grass. The famous green of the "Emerald Isle" is not due to the varieties of grasses grown there, but to the unusually favorable weather conditions generally prevailing.

The Summer of 1911 was the hottest and driest which England had for a half century, approximating the average Summer here and the lawns, links and pastures suffered accordingly—fully as much, if not more, than under similar conditions in the United States. The writer made a tour of the British Isles that summer and found the **burned up condition of the lawns and parks in and around London and elsewhere, worse than he had ever seen them in the United States.**

The grasses of the known world have been tested in this country and those which have been proved to be best adapted to our soil and climate are now used here. **Two of the leading grasses in the best mixtures for golf courses and lawns are grown very largely in the United States because of their adaptability to our climate, and practically the world supply of the seed is produced here.**

It cannot be urged too often that good, clean, viable seed is a prime essential in laying down golf courses and lawns. The cost of preparation, the disappointment and expense of failure, are potent arguments in favor of securing reliable, tested seed and are a strong warning against cheap seeds which too often prove to be the dearest.

Too much stress cannot be laid on the necessity for a thorough preparation of the soil before seeding. Many who recognize the necessity of plowing, harrowing and manuring for vegetable, flower and fruit garden are apt to minimize the importance of these for grasses. We wish to emphasize the necessity of thorough plowing, pulverizing and enriching with manure if good turf is to be had. If these are properly done there is a certainty of success.

The question is often asked of us "What grass seed will grow on sand?" We reply there is none; that only **soil** will support grasses. Even if the soil be very sandy there must be sufficient organic matter or humus added to it to maintain grass. Another question frequently put to us is, "What is the value of soil analysis in determining the fitness of it for producing and maintaining turf?" We cannot answer this better than by quoting Prof. G. E. Adams, who lectured on "Fertilizer Problems of the Orchard and Garden" before the Massachusetts Horticultural Society last Spring. In answer to a similar question he said: "The value of soil analysis is very slight. No method of soil analysis would tell you to-day the amount of plant food available to crops. The purely chemical analysis to a practical man is of very little use."

SEEDING. The majority of links and lawns are sown in the spring so we would urge doing it just as soon as the ground can be cultivated, early seeding brings the best results.

In making the new golf courses, wherever possible we would advise laying them down in the Fall. The advantages of doing it then are that it relieves the spring rush, when very often the work cannot be done at the most propitious time. If the seed is not sown early in Spring hot weather sets in and works injury to the young grass. When sown in the Fall, the best time being the latter part of August or the early part of September, the benefits of a warm soil, copious rainfall and lessening temperature are to be had. These conditions insure a better germination, a higher percentage of the survival of the grasses which start into growth, a stronger and healthier growth; because of these conditions the crop of weeds which always appears in freshly cultivated land will be lighter.





THE BERMUDA GRASS LAWN
AT PALM BEACH.

METHOD OF A GEORGIA CUSTOMER IN MAINTAINING A GREEN LAWN THE YEAR ROUND.

Gentlemen: I enclose you the details of my plan in maintaining a green lawn the year round in this climate, where ordinary grasses burn out in summer. The experiment has been a success in every way, and you may with confidence recommend this plan to your Southern customers.

Area $\frac{1}{2}$ acre, sowed with the Bermuda Grass Seed, Jan. 31st. Our soil is very light with clay subsoil. I put it in good condition, plowing in 200 lbs. Cotton Seed Meal on the $\frac{1}{2}$ acre, sowed with the Bermuda Grass Seed Jan. 31st (6 lbs. per acre). Several subsequent rollings with a light roller had a good effect. On May 4th during a rain broadcasted 12 lbs. of Nitrate of Soda over the $\frac{1}{2}$ acre with good results. This Bermuda Grass Seed gave us a first-class green lawn all summer, it stands mowing and cares for no drought; the first frost kills it to the ground. October 2d I applied a top dressing of rich soil and cotton seed meal and raked in English Rye Grass Seed in the proportion of 50 lbs. per acre and rolled the ground. The latter grass seed comes up in eight days, in six weeks it is a mass of green and gives a good lawn all winter; it dies out in May leaving the ground clear for the Bermuda Grass, the roots of which survive in the ground here through the winter.

Bermuda Grass Seed.

Sow for the Summer Lawn in the Extreme South.

BERMUDA GRASS is the most important and valuable grass for lawns in the extreme South. A well kept lawn of this grass is a refreshing and beautiful sight. It is of low creeping habit, roots from the stem joints and forms a dense sod. It will grow on almost any soil, thriving best on rich land, but will also thrive on poor sandy land. In moist climates it will grow in nearly pure sand, making a good sand binder and bank holder. It revels in the heat and direct rays of the sun, remaining green through the long tropical and sub-tropical summers, when any other type of grass adapted for lawns would burn out. Although Bermuda Grass is especially adapted for lawn formation in the extreme South, and may be grown as far north as Richmond, Va., and St. Louis, without being winter killed, yet the further north it is grown the shorter will be its season of green, as the foliage turns brown after the first frost and does not "green" until after frosts cease in spring. For this reason in sections subject to frosts an associate winter grass, usually English Rye Grass, is sown in the fall over the Bermuda Grass lawn after the surface has been scarified. These two associate grasses thus furnish a green lawn the year round in the Southern States. For lawn purposes sow 6 lbs. of Bermuda Grass Seed per acre. It is best sown in the spring, as it germinates best in warm weather. Price of Seed, 75c. per lb., 100 lbs at 70c. per lb.

English Eye Grass Seed.

Sow for the Winter Lawn in the Extreme South.

This most valuable grass for the North is also particularly useful in sections of the South as an associate with Bermuda Grass where the latter turns brown in the winter. By sowing Rye Grass in the fall right over the Bermuda Grass Sod, and raking and rolling the seed in, a green lawn may be had throughout the winter until warm weather again starts the Bermuda Grass into growth, when the Rye Grass will die out. The ground must be reseeded with Rye Grass each Fall. Rye Grass is of rapid growth coming up in 8 to 10 days time and soon covers the ground with a dense growth of green grass which if kept mown forms a fine sward. Sow at the rate of 50 pounds per acre.

Price, 15c. per lb.; \$3.00 per bush. of 24 lb.; \$10.00 per 100 lbs.

Quantity to sow
per acre.

Weight per
bushel

HENDERSON'S RECLEANED LAWN GRASS SEEDS

We are prepared at all times to make up special mixtures of grass seeds, for those who prefer to select their own varieties.

- BERMUDA GRASS. (*Cynodon Dactylon*.) Valuable lawn grass for the extreme South, but does not thrive north of Virginia.
- CANADA BLUE GRASS. (*Poa Compressa*.) Useful on hard cl. y and poor gravelly soils; resists drought.
- CREeping BENT GRASS. (*Agrostis Stoloniifera*.) Excellent for lawns and putting greens; succeeds well in most situations.
- CREsted DOG'S TAIL. (*Cynosurus Cristatus*.) Should enter in moderate quantity in lawn and putting green mixtures.
- ENGLISH RYE GRASS. (*Lolium Perenne*.) For quick results, it makes a good showing within a month.
- FESCUe FINE-LEAVED SHEEPS. (*Festuca Ovina Tenuifolia*.) The finest bladed grass and valuable only for lawns.
- " HARD. (*Festuca Duriuscula*.) A dwarf-growing grass forming a dense, fibrous mat, succeeding well in dry situations.
- " RED OR CREEPING. (*Festuca Rubra*.) Forms a close, rich sod, and is valuable in lawn and putting green mixtures.
- " SHEEP'S. (*Festuca Ovina*.) Short and dense in growth. Valuable for lawns and putting greens.
- " VARIOUS-LEAVED. (*Festuca Heterophylla*.) Valuable in lawn mixtures, forms a close rich sod.
- " MEADOW. (*Festuca Pratensis*.) Of robust growth and useful in permanent mixtures.
- ITALIAN RYE GRASS. (*Lolium Italicum*.) For quick one-season results; thrives in almost any soil.
- KENTUCKY BLUE GRASS. (*Poa Pratensis*.) Does best on lime stone soils in the higher altitudes, gradually making a good turf, but not the first year. Fancy or double extra clean. Though offered at the standard weight of 14 lbs. per bushel, the natural weight of this fancy seed is 20 to 25 lbs. per measured bushel.
- RED TOP GRASS, FANCY. (*Agrostis Vulgaris*.) Forms a close sod, thrives on moist clayey soil and even on slightly acid soils. extra recleaned seed free from chaff and weighs 32 lbs. per measured bushel.
- RHODE ISLAND BENT GRASS. (*Agrostis Canina*.) Related to the Red Top, but much finer in texture; produces soft velvety turf
- ROUGH STALK MEADOW GRASS. (*Poa Trivialis*.) Adapted for shaded situations, particularly on damp soils.
- SWEET VERNAL, TRUE PERENNIAL. (*Anthoxanthum Odorum*.) Emits an agreeable odor when the lawn is mown.
- WOOD MEADOW GRASS. (*Poa Nemoralis*.) Of early growth, thriving well under trees; makes a fine close sod.
- WHITE CLOVER. (*Trifolium Repens*.) A hardy perennial of low creeping growth often used in lawns.

Prices

Per bushel	Per pound	Per 100 pounds
	\$.75	70.00
2.50	.20	15.00
11.50	.60	55.00
7.75	.40	35.00
3.00	.15	10.00
8.00	.60	55.00
4.50	.40	35.00
5.25	.40	35.00
4.50	.40	35.00
6.00	.45	40.00
4.50	.22	18.00
2.50	.15	12.00
2.75	.22	18.00
9.00	.30	25.00
8.00	.60	55.00
8.00	.60	55.00
6.50	.70	
8.10	.60	55.00
45.50	.80	75.00

Henderson's Fertilizers and Manures for Lawns and Golf Courses

The proper fertilization of Lawns and Putting greens is as important a matter as seeding, if a good turf is to be constantly maintained. To keep such grounds—subject as they are to constant wear—in the best condition, they must be fed at regular intervals to compensate the soil for the loss of valuable plant foods which are carted away with the grass clippings. These are, potash, nitrogen, lime, and phosphorous.

A top-dressing of complete fertilizer is especially needed in the spring, and in applying it use the method for sowing lawn grass seeds illustrated on page 2, only make the spaces 10 ft. x 15 ft., or 150 square feet, which is a convenient space to treat at one time. Henderson's Lawn Enricher (see below) is a complete grass fertilizer and a 5 lb. package should be used for each space of 150 square feet. It is also good practise to mix fertilizers with two or three times their bulk of sifted soil to insure even distribution.

The "Henderson" Lawn Enricher.

ODORLESS—QUICK ACTING

For New and Old Lawns, Tennis Courts, Putting Greens, Etc. Quickly Induces a Luxuriant Rich Green Growth.

The Henderson Lawn Enricher contains all the plant food necessary for the growth of fine grasses. It is quick in action and never fails to induce a rapid and rich green growth. Apply broadcast with a machine or sow it evenly by hand, on a quiet day and when rain is expected if possible. If rain is not likely to fall water in thoroughly with a hose. If applied during the summer use half the usual quantity and water on with a hose. The use of this fertilizer does away with the old practise of top-dressing lawns with stable manure so objectionable on account of its disagreeable odor and general unsightliness.

QUANTITY REQUIRED.

For forming a new lawn a 10-pound package is sufficient to go over an area of 300 square feet, or 1,000 to 1,500 pounds per acre, or a smaller quantity for renovating an old lawn.

PRICES—by Freight, Express or Parcel Post—(purchaser paying transit charges.)		
5-pound package (P.P. 6 lb.)		\$.30
10- " " (P.P. 11 lb.)		.50
25- " bag		1.00
50- " "		1.75
100- " "		3.00
200- " "		5.00
Per ton of 2000 pounds		46.00

Steven's Hand Fertilizer Sower.



Steven's Hand Fertilizer Sower For Top-Dressing Lawns

Stevens Hand Fertilizer Sower sows our Lawn Enricher bone meal, wood ashes, lime and all kinds of commercial fertilizers, in large or very small quantities. It can also be successfully used for fertilizing strawberry beds, and other garden and field work; is excellent for sifting wood or coal ashes, sawdust, or dry sand on icy walks; will also sow damp sand by removing two blades.

The hopper is 34 inches long and holds one and a half bushels. Weight of machine 83 lbs. It is well made and nicely painted.

Price, \$12.00.

RAW BONE FERTILIZERS.

Decompose slowly in the soil, and therefore form excellent permanent improvement, less likely than any other fertilizer to waste. With bone there is no danger of burning the plants. Excellent for top-dressing lawns and grass lands; also for garden and field crops.

Quantity Required. For Fair Greens, Lawns and mowing lands, $\frac{1}{2}$ to 1 ton per acre. For top-dressings, 1,000 to 1,500 lbs. per acre.

RAW BONE MEAL. This is ground very fine, decomposes more rapidly in the soil than the coarser grades, and is therefore more quickly beneficial. Price, 1 lb. package, 10c. (P.P. 2 lb.); 5 lb. package, 30c. (P.P. 6 lb.); 10 lb. package, 50c. (P.P. 11 lb.); 25 lb. bag, \$1.00; 50 lb. bag, \$1.75; 100 lb. bag, \$3.00; 200 lb. bag, \$5.00; per ton of 2,000 lbs., \$47.00.

RAW GROUND BONE. This is moderately fine and particularly adapted for general fertilizing; the finer particles are immediately assimilated, the coarse keeping up the supply of plant food for a long period. Price, per 100 lb. bag, \$3.00; 200 lb. bag, \$5.00; per ton of 2,000 lbs., \$47.00.

BLOOD AND BONE.

Is of exceptional value for grasses, and, in fact all kinds of vegetation.

Guaranteed Analysis. Ammonia 4%. Total Phosphoric Acid 17%.

Quantity Required. When broadcasted and harrowed in use from $\frac{1}{2}$ to 1 ton per acre. For garden crops drill in 300 to 500 lbs. per acre.

Price per 100 lb. bag, \$3.00; 200 lb. bag, \$5.00; per ton of 2,000 lbs. \$47.00.

PURE ANIMAL MANURES—Pulverized.

Convenient, compact, high grade natural manures dried and ground or pulverized* very nutritious, immediate and lasting in effect. They make a rich Liquid Manure.

Quantity Required. For garden and field crops, 1 to 2 tons per acre— $\frac{1}{2}$ before plowing the balance before harrowing. For top-dressing grass, use 1 ton per acre, applied in fall or early spring.

SHEEP MANURE PULVERIZED. Price, 50 lb. bag, \$1.50; 100 lb. bag, \$2.50; per ton of 2,000 lbs. \$32.00; in packages of 2 lbs., 20c. (P.P. 3 lb.); 5 lbs., 35c. P.P. (6 lb.); 10 lbs. 60c. (P.P. 11 lb.)

HORSE MANURE DRIED AND GROUND. Price, per 100 lb. bag, \$2.50; 500 lbs., \$10.00; per ton of 2,000 lbs., \$36.00.

CATTLE MANURE DRIED. \$2.00 per 100-lb. bag; \$30.00 per ton.

ASHES—Canada Hard Wood.

Drives away insects and improves the texture of the soil; indispensable for all crops requiring potash; very beneficial for grass lands and lawns. **(Guaranteed Analysis.**—Total Potash 2 to 5%; Total Phosphoric Acid 1 to 3%. Apply 1 to 2 tons per acre, as one heavy application is better than the same quantity put on in fractions. Price per 100 lb. bag, \$1.75; per bbl. of about 200 lbs., \$3.00, per ton of 2,000 lbs., in bbls. \$25.00.

NITRATE OF SODA.

Valuable solely for the nitrogen it contains. It is chiefly a stimulant, used in addition to other fertilizers. It is quick in action and hastens crops to maturity, being extremely soluble it is easily applied after the plants are above ground. Price, per 5 lb. package 40c. (P. P. 6 lb.); 10 lb. package, 75c. (P.P. 11 lb.); 25 lb. bag, \$1.60; 50 lb. bag, \$2.75; 100 lb. bag, \$5.00; per ton apply. **Quantity required.** 100 to 500 lbs. per acre. Liquid, 5 lbs. to 80 gallons of water.

HYDRATED LIME per 100 lb. bag, \$1.00; per ton of 2,000 lbs. \$15.00; 3 ton lots at \$13.50 per ton.

GROUND LIME STONES per 100 lb. bag 85c. \$12.00 per ton of 2,000 lbs, 3 ton lots at \$11.00 per ton.

Imported English Fertilizers.

CLAY'S FERTILIZER. Price, 14 lb. bag, \$1.25; 28-lb. bag, \$2.25; 56-lb. bag \$4.00; 112-lb. bag, \$7.00.

THOMSON'S VINE, PLANT AND VEGETABLE MANURE Price, 28-lb. bag, \$1.75; 56 lb. bag, \$3.50; 112-lb. bag, \$6.75.

THOMSON'S SPECIAL CHRYSANTHEMUM AND TOP-DRESSING MANURE. 7-lb. bag, \$1.50; 14-lb. bag, \$2.50; 28-lb. bag, \$4.00; 56-lb. bag, \$7.00.

Commercial Fertilizers.

The highest grade commercial fertilizers made.

	Price per 100 lbs.	200 lbs.	2,000 lbs
Potato Manure	\$2.50	\$4.50	\$40.00
Corn Manure	2.50	4.50	40.00
Special Truck Manure for vegetable crops	2.75	4.75	44.00
General Crop compound	2.25	4.00	36.00

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.



HENDERSON'S WORM KILLING GRASS FOOD

"CLIMAX" LAWN SAND.

A non-poisonous, dried chemical. If evenly distributed at the rate of 4 ounces per square yard it kills weeds by adhering to their broad flat leaves, but falling through to the ground when sprinkled over grass, it is absorbed by the soil and so fertilizes it that a permanent growth of grass quickly covers the portions previously occupied by weeds and moss.

Grass dressed with "Climax" Lawn Sand is thicker in growth, finer in texture and richer in color. It is marvelous how quickly the grass responds and how lasting the improvement. Price, 3½ lbs., 50c. (Mail weight 4 lbs.); 7 lbs., 75c. (Mail weight, 8 lbs.); will dress about 25 square yards; 14 lbs., \$1.25, 28 lbs., \$2.00; 56 lbs., \$3.50; 1 cwt., \$6.00.

HENDERSON'S WORM KILLING GRASS FOOD.

Feeds the Grass and Destroys the Worms. Is not Harmful to Animals.

Henderson's Worm Killing Grass Food quickly destroys the millions of worms which infest many Lawns, Croquet Grounds and Putting Greens. Whenever the casts voided by the worms appear a cup-shaped depression is formed when the green is rolled, which soon spoils that perfect level so desirable on grounds devoted to sports, where it is absolutely necessary that the ball should run true.

The continual action of the worms in throwing up these casts loosens the soil around the roots of grasses, and the hot sun, or dry weather, causes them to turn yellow and finally die out in spots leaving bare patches which are soon taken possession of by weeds and crab grass. Brushing off these worm casts and rolling the ground injures the turf by bruising the surface roots of the grasses, besides being an expensive item in the upkeep of the Greens. More lawn troubles are caused by earthworms than people realize, and we advise all whose grass is not so good as it should be, to apply Henderson's Worm Killing Grass Food.

It is not in the least injurious to animals, and as one of its ingredients is a rich fertilizer it stimulates the grass into a rich, green growth. It is being used in increasing quantities by many Golf and Country Clubs all over the United States and has given the greatest satisfaction. Apply during the growing season according to the directions below.

DIRECTIONS FOR APPLYING.

Do not apply until the frost is entirely out of the ground. Select a warm, moist day when worms are usually active. It is best to apply a small portion to the ground first say about one pound to see if they are active before going over the entire surface, for the mixture must come in contact with the worms in order to force them to the surface and destroy them.

The method of applying is illustrated on this page. First water the turf copiously to open up the worm burrows and bring them nearer to the surface; then spread the powder as evenly as possible, sweeping it in with a broom so that no portion is missed. Next,—water copiously at once with a hose so as to saturate the ground and carry the Worm Killing Grass Food in solution to the worms. In a few minutes the worms big and little will rise to the surface and die, when they should be shovelled up and carried away. In the illustration the garden lines or strings are stretched across the greens 9 ft. apart, then taking one section at a time, bamboo rods or strings are laid across 10 ft. apart making each space 9 ft. x 10 ft. For this space use a 5 lb. package. (See engraving.)

PRICE OF HENDERSON'S WORM KILLING GRASS FOOD (F. O. B. N. Y.):

5 lb. pkg. (Mail wt. 6 lbs.).....	\$0.50	100 lb. bags.....	\$4.00
10 " " (Mail wt. 11 lbs.).....	.85	¼ ton (5-100 lb. bags).....	19.00
25 " " ".....	1.50	½ ton (10-100 lb. bags).....	37.00
50 " bag.....	2.25	1 ton (20-100 lb. bags).....	74.00

"Kindly book us for one ton of Henderson's Worm Killing Grass Food for spring delivery. We take pleasure in advising that the sample ton from you last year was the means of thoroughly eradicating the worms wherever applied. It is certainly the best preparation of its kind we have ever used."

W. S. THOMAS (Chairman Greens Com., Country Club of Glen Ridge), Glen Ridge, N. J.

"Was more than pleased with your Worm Killing Grass Food. It is a sure exterminator of the angle worm. Our grass was very much improved in quality and evenness of surface by the use of it. Will place another order for it with you next spring."

D. M. BLANFORD, Silver Springs, Md.

"Our experience with your Worm Killing Grass Food has been very successful. It not only kills the worms but saves the expense of "brushing" the greens. We recommend it very heartily."

F. H. HOYTE, (Chairman Greens Com.), Allston Golf Club, Allston, Mass.

HENDERSON'S FLUID WEED DESTROYER.

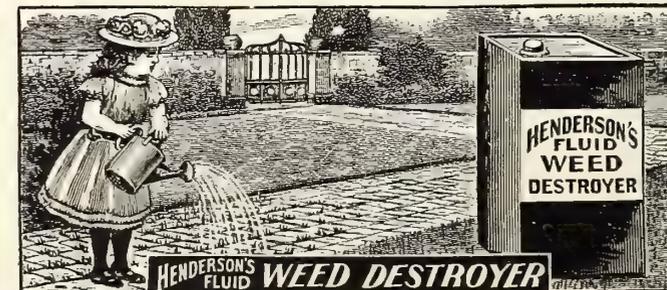
Destroys Weeds, Moss, Grass, etc., in Garden Walks, and Carriage Drives.

It completely destroys all weeds, wherever applied, and by sterilizing the ground prevents the growth of fresh ones for a year afterwards, thus saving an immense amount of labor in hoeing, etc. By its use brick walks can be kept perfectly clean. Its application is easy, as it is in liquid form and only requires to be mixed with water and applied with a watering can or sprinkling cart. If the ground is very dry it should first be sprinkled with clear water, so the Weed Destroyer will not soak away too quickly. Where large weeds and docks are to be destroyed it is best to mow or chop off the tops before applying the destroyer. Full directions for use with each package. (Not mailable.) (See engraving.)

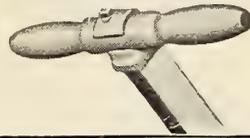
Quart Can	makes	4 to	6 gallons,	sufficient for	100 sq.ft.	\$0.40
Gallon Can	"	16 to	20 "	" " "	400 "	1.15
5-Gallon Keg	"	80 to	100 "	" " "	2000 "	5.00
50-Gallon Barrels	"	800 to	1000 "	" " "	20000 "	38.00

"Your 'Weed Destroyer' is a boon to us here with our numerous garden walks and carriage drives to be kept clean and free of weeds. It used to be hoe, hoe, hoe, from morning till night, all summer long, but the last two seasons by sprinkling the walks thoroughly in the spring with your 'Weed Destroyer' diluted with water, it has kept the weeds and moss away and the walks in apple pie order."

CHAS. McGRATH, Jr., Newton, Mass.

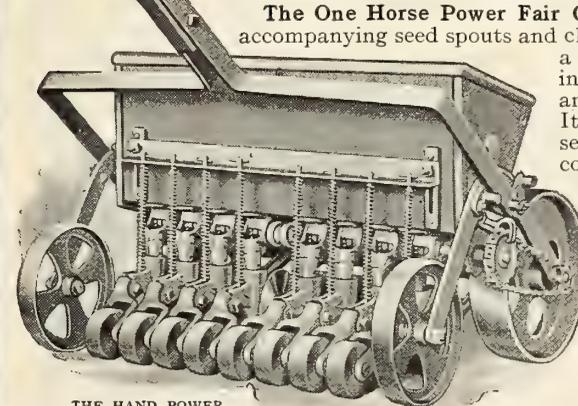


For Seeding New Lawns and Renovating Worn Out Lawns and Bad Spots without digging. Puts the seed IN old sod or IN newly prepared ground, covers and rolls it.



The "VELVET LAWN" Seeders FOR HAND AND HORSE POWER.

This is a valuable machine for seeding new lawns and doubly valuable for renovating worn out lawns and bad spots in Greens, Tennis Courts, etc., without redigging or plowing, and without marring the surface. It puts the seed IN newly prepared ground or IN old sod—the seed is distributed very evenly in any desired quantity—wind or no wind, not too thick in some places and too thin in others. In new ground or soft turf it is easily operated by one man but in old hard sod it may require another person to pull. The revolving discs cut narrow trenches, the seeds being sown in it and immediately behind the discs. There are eight of these discs with their accompanying seed spouts. These sow 2 in. apart—thus the machine sows a strip 16 in. wide as fast as a man can walk. It will sow and cross sow an area 50x150 ft. in 30 minutes; a little roller follows each seed spout, thus pressing the soil back and covering the seed. As each disc, seed spout and roller work individually, they therefore adapt themselves to the inequalities of the ground—insuring a perfectly even stand of grass. (See engraving.) Price, \$15.00.



THE HAND POWER "VELVET LAWN" SEEDER.

The One Horse Power Fair Greens Seeder has 16 discs with accompanying seed spouts and chains. These sow 3 in. apart or a strip 4 ft. wide. It is very light in draft and can be operated by any boy who can drive a horse. It will be found invaluable for seeding large lawns, parks and golf courses—either new ground or renovating old turf, and is equally valuable for sowing clover, alfalfa, etc., reseeding new or old meadows and pastures. (See engraving.)

Price for Horse Power "Velvet Lawn" Seeder equipped with automatic press wheels \$55.00 net.



THE ONE HORSE POWER FAIR GREENS SEEDER

WE SUPPLY ALL LEADING LAWN MOWERS, including the following: Pennsylvania High-Wheel.

Net Prices.		Grass catcher
15-inch cut	\$12 50	\$1 70
17- " "	14 00	1 80
19- " "	15 50	1 90
21- " "	17 00	2 00

Imperial High Wheel. Four-Bladed. Net Prices. With 5 blades, add 75c. Grass catcher

14-inch cut	\$8 50	\$1 85
16- " "	9 50	2 00
18- " "	10 50	2 15
20- " "	11 50	2 30

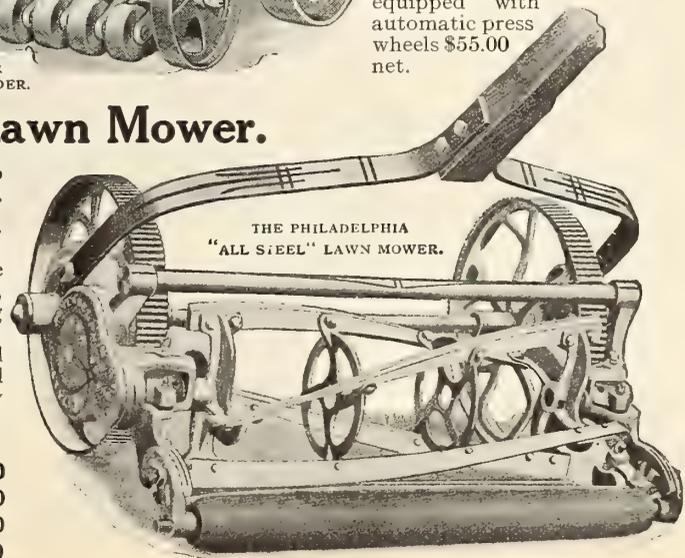
The Philadelphia "All Steel" Lawn Mower.

All Steel Cylinder with 4 blades, Driving Wheel, 10 inches, diameter of Cylinder 6½ inches, Train of 3 gears, Double Ratchet.

This all-steel, Style A, Philadelphia mower is about the last word in lawn mower construction. The frame, being made of steel in place of cast iron, is much lighter, stronger and not liable to break any place. The drive wheels, 10 inches in diameter, give great traction power and spin the 4-bladed 6½-inch revolving cutter with great speed, thus leaving a smoothly cut surface. The train of three gears keeps the cutters down to their work and prevents "bobbing up" in high grass. The roller bearings aid in the phenomenal ease with which this light and practically indestructible mower is operated. (See engraving.)

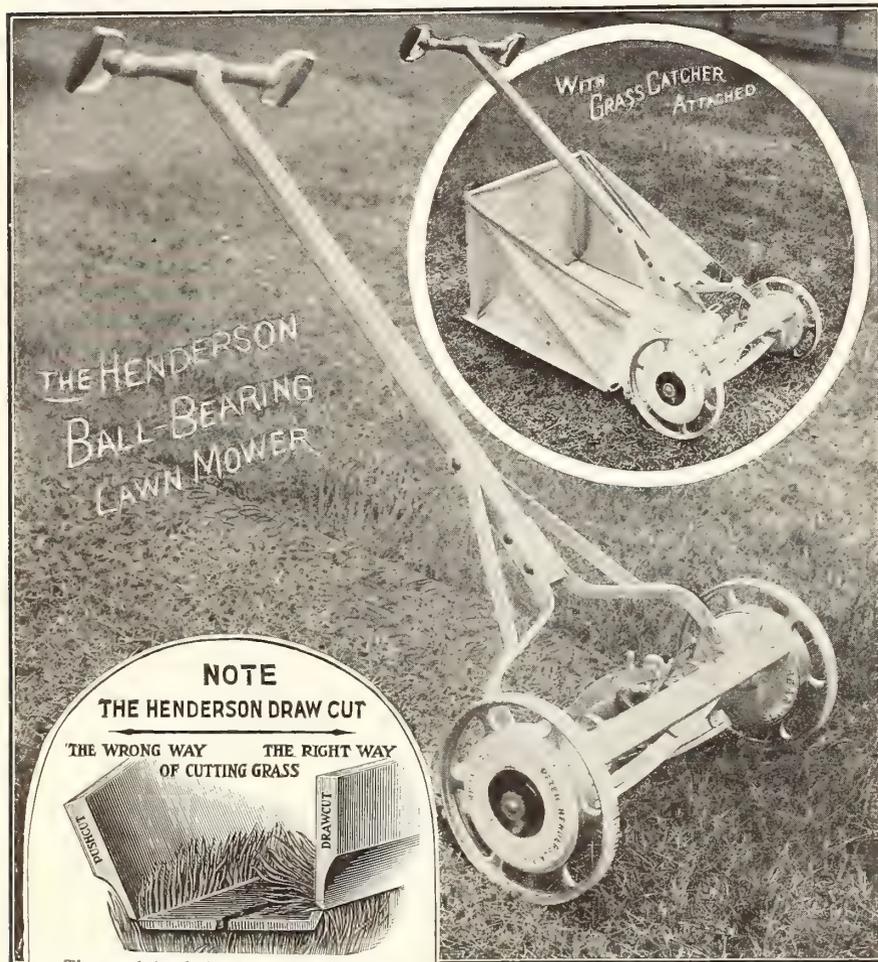
Price (Strictly net, no charge for cartage or packing.)

15-inch cut	\$12.00;	Grass Catcher extra	\$1.70
17- " "	13.50;	" " "	1.80
19- " "	15.00;	" " "	1.90
21- " "	16.50;	" " "	2.00



THE PHILADELPHIA "ALL STEEL" LAWN MOWER.

THE HENDERSON SELF-ADJUSTING, BALL-BEARING LAWN MOWER.



The King of Lawn Mowers.
LIGHT RUNNING. NOISELESS—DURABLE—SELF ADJUSTING.
DRAW CUT. ALWAYS SHARP. DOES NOT PULL THE GRASS.
Leaves the Lawn Smooth and Free from Corrugation.

THE HENDERSON BALL-BEARING LAWN MOWER is made without regard to cost—to be the best, most durable, and the easiest-working Mower on the market, and while the prices are necessarily a little higher than those of Mowers simply made to sell, yet in the end our Mower will prove much cheaper aside from annoying delays and repairs experienced with cheap Mowers. It is superior to all other Mowers in the following respects; the axles of the revolving cutter, like the axles of a bicycle, work in self-adjusting "ball-bearing" journal boxes or cups, which reduces the friction enormously. The Mower is also built scientifically correct in other respects. The "drawcut" principle corrects the defect in "push cut" Lawn Mowers, and completely reverses the old way of cutting the grass. The grass is drawn across the sharp edge of the Stationary Knife, which is the cutting knife, and is severed most easily. See illustration.)

It causes the mower to operate much more easily. It prevents the mower from "bobbing up" in the rear thus ensuring an even cut. The heavier the grass, the closer the mower clings to the turf. It makes the mower self-sharpening; the drawing of the wiper blades across the edge of the stationary knife keeps it always sharp and prevents gouging. Where the "push cut" style of mower requires "sharpening" a dozen times, the Henderson Ball-Bearing "drawcut" mower will not need it once. It is strictly a high class Mower, made from the highest quality of iron and steel. The castings are lathe-turned and bored, and the journals machine-trimmed, which insures trueness in fitting and smoothness in working, with no irregularities to wear off and leave rattle and play. We have so simplified the adjustments in our new Ball-Bearing Mower that even those ignorant of mechanics will have no trouble in always keeping our Mower in fine cutting order for years and the lawn in uninjured condition.

THE HENDERSON BALL-BEARING MOWER has high drive wheels, large, open non-clogging cylinder. The spiral of the knives is correctly proportioned to give a continuous cut, leaving the lawn as smooth as if shaved entirely free from the corrugated surface left by other Mowers. The handles are braced and reinforced to prevent twisting and breaking when one side of the Mower is held off the ground, and besides the handle is equipped with improved "grips" which keeps the hands in a natural position, gives more power, and is less tiresome than a continued grasp, with wrists twisted, on a horizontal grip.

GRASS CATCHERS.

GRASS CATCHERS for the Henderson "Ball-Bearing" Lawn Mower superior heavy duck; bottom of galvanized iron that will not sag or drag on the ground when filled; they are quickly attached, removed or dumped.

PRICES FOR THE HENDERSON BALL-BEARING LAWN MOWERS.

(Strictly net; no charges for packing or cartage.)

Five-Bladed.		Eight Bladed.	
16-inch cut, \$7.50	Grass Catcher Extra, \$1.75 \$9.50
18-inch cut, \$8.25	Grass Catcher Extra, \$1.85 10.50
21-inch cut, \$9.00	Grass Catcher Extra, \$2.00 12.00

NOTE: We can supply these mowers either with five or eight blades but always send the five bladed mower unless otherwise ordered. The eight-bladed mower cuts finer and is extensively used on putting-Greens but it runs a little harder.

NOTE THE HENDERSON DRAW CUT

THE WRONG WAY THE RIGHT WAY
OF CUTTING GRASS



The revolving knives appear to be reversed to "push cut" mowers. We have proven our "draw cut" principal far better. Read why.

"Your 'Henderson' Mower proves better than you claim for it. It is a delight to use it and it is a great favorite with my neighbors."

CLARENCE L. LERSCHNER,
20 Lotus Road, Ridgewood, N. J.

"I want to tell you how much I think of my 21-inch Henderson Ball Bearing Lawn Mower. I used it all of last season and have commenced using it again this spring and really think more of it every time I use it. With all its great cutting surface it is remarkably easy of operation. We have a large lawn—but I cover the ground with it in a hurry, often mow it before breakfast with my Henderson."
F. A. STORY,
Gatesville, Texas.

THE HENDERSON BALL-BEARING LAWN MOWER

"We have been using one of your 21-inch Henderson Mowers for the past five years, mowing about an acre of lawn at least once a week, and it has cost us just 75c. for repairs—a record any machine might be proud of."

ESTATE JOHN MURRIN, Carbondale, Pa.

"We have several makes of mowers, but none can cut the lawn as well as the Henderson Ball-Bearing." FRANK H. VILLE, Freemansburg, Pa.

"Some years ago we purchased of you a 'Henderson' Lawn Mower. We have used it constantly on rough, sandy ground, and it has done all its work well. Our neighbor has used three mowers in the same length of time."

R. M. MONROE, Cocobanut Grove, Fla.

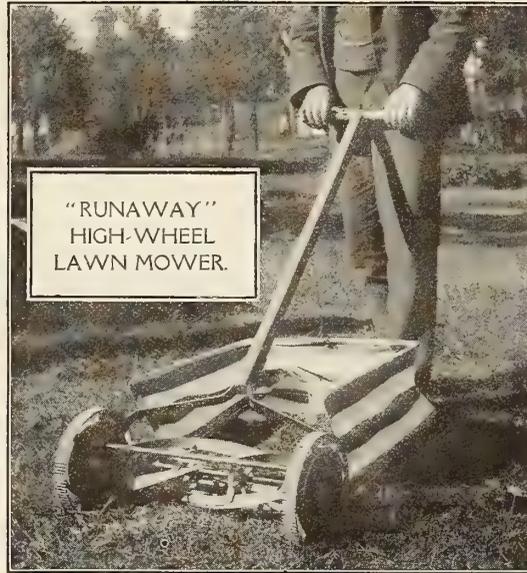
“RUNAWAY” HIGH-WHEEL LAWN MOWER.

A first-class high-wheel lawn mower at a popular price; the four revolving knives give a continuous cut; made of best materials, easy running and fully warranted. It leaves a close cut quite free from corrugations. (See engraving.)

Prices (Strictly net; no charge for boxing or cartage.)

12-inch cut	\$4.00
14- “ “	4.50
16- “ “	5.00
18- “ “	5.50
20- “ “	6.00

Metal Bottom Grass Catcher, for any size “Runaway” Mower (extra) 1.25



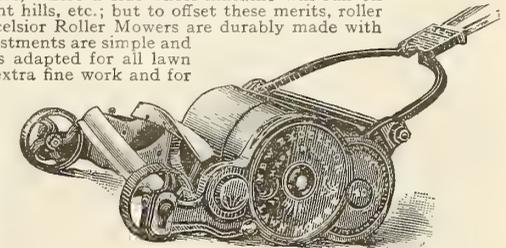
EXCELSIOR ROLLER LAWN MOWER.

An old reliable lawn mower for those preferring a roller mower which, of course, has some advantages over side-wheel mowers, as in mowing new lawns where the ground is still soft and impressionable, cutting narrow borders, where a side-wheel machine will run off the edge, rolling down worm casts, ant hills, etc.; but to offset these merits, roller mowers do push a little harder. Excelsior Roller Mowers are durably made with best crucible steel knives and the adjustments are simple and with the 4-bladed revolving cutter is adapted for all lawn cutting. The 6-bladed cutter is for extra fine work and for golf courses, tennis courts, etc., but runs harder. (See engraving.)

Prices (Strictly net no charge for cartage or packing.)

12-inch cut with 4-bladed cutter	\$11.50
14- “ “ “ “	13.00
16- “ “ “ “	14.50
18- “ “ “ “	16.00

If 6-bladed cutter is desired, include \$1.00 extra, any size; Grass Catcher and Deflector \$3.00 extra, any size.



NEW EXCELSIOR ROLLER MOWER

HENDERSON'S BORDER and TERRACE MOWER

Especially designed to cut the grass on borders—the narrow strips of sod sometimes only a few inches wide—between flower beds and walks where a side wheel mower would have one wheel down in the gutter, and in consequence the mower would cut into the sod. In our Border Mower a large light cylinder extends the full width of the mower and keeps the machine level with the surface and does perfect work. This machine is also useful for regular lawn work. It is very light running, and will give thorough satisfaction. (See engraving.)

Prices (Strictly net; no charge for boxing or cartage.)

10-inch cut	\$6.00	16-inch cut	\$9.00
12- “ “	7.00	18- “ “	10.00
14- “ “	8.00		



Pennsylvania Putting Greens OR ROLLER MOWER.

This mower is unexcelled for cutting undulating or wavy greens. Also Tennis Courts, Cricket Creases and Other Lawns requiring an exceptionally close and smooth cut. It can also be used as a border trimmer for the ordinary lawn. It is a thoroughly high grade machine carefully built of the very best materials. (See engraving.)

Blades—There are six crucible tool steel, oil hardened and water tempered blades.

Gears—The gears are triple, insuring power and speed.

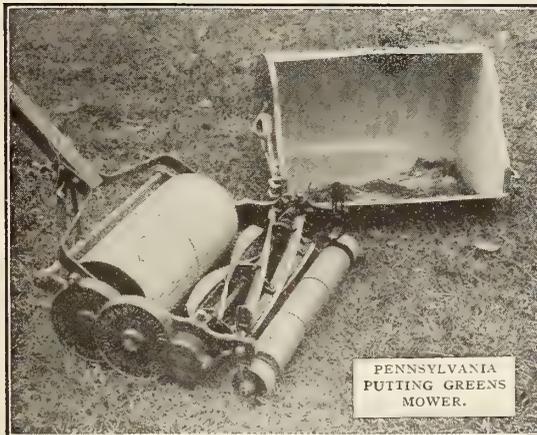
Rollers—Cast Iron. 7 inches diameter.

Bottom Knife—Improved curved pattern, tempered, crucible tool steel. Bolted rigidly to the frame, making the adjustment entirely with the Cylinder.

Height of Cut—3/16 to 1 1/4 inch.

Journal Boxes or Cylinder Bearings—Self-aligning, insuring a perfect cutting edge the entire length of the blades.

Handle—Hard wood. Iron braces on cross bar. 7-inch rollers. 5-inch, Six blade cylinder.



PENNSYLVANIA PUTTING GREENS MOWER.

Prices (Strictly net; no charge for cartage or packing.)

10 inch cut	\$13.00	with Grass Box	\$15.50
12 “ “	15.00	“ “	17.60
14 “ “	17.00	“ “	19.70
16 “ “	19.00	“ “	21.90
18 “ “	21.00	“ “	24.00

THE EUREKA LAWN MOWER SHARPENER.

A new device to attach to the stationary bar of any mower. Sharpens all revolving blades to a keen, even, accurate edge in a few minutes. Anyone can attach it. No filing, no work.

Simply push the mower, on sidewalk with sharpener attached and blades sharpen automatically.

Price, 35c. P.P. (8 oz.). Specify width of mower whether 12 in., 14 in., 16 in., 18 in., or 20 in.





TOWNSEND'S GOLF WONDER LAWN MOWER.

Townsend's Golf Wonder Lawn Mower.

THE ACKNOWLEDGED "BEST FOR PUTTING GREENS."

The Golf Wonder Lawn Mower is, especially designed and manufactured for a "Putting Green" Mower, and it is the acknowledged best for the purpose. It can be set to cut so close that it practically shaves the turf or the knives may be raised to cut the grass at any desired height, leaving the surface as smooth as a billiard table. It is used by many of the Golf and Country Clubs, and is invariably considered a pronounced success. An iron roller (6½ inches diameter) in the rear and a small wooden roller in front carry the machine perfectly true and level and do not dent or mark the "green," as side wheel machines are apt to do when the ground is damp or soft, and besides the weight on these rollers is usually sufficient to press flat any worm-casts. The two front wheels may be used or not as desired. The reel is only 4½ inches in diameter and has six knives, consequently their cutting edges strike the grass in such close succession that they leave the turf absolutely free from corrugation and smooth for true "putting." The very best material is used in the construction of the Golf-Wonder Mowers—the best quality of new iron in the castings and the highest grade of steel in the knives. All

wearing parts are lathe turned or machine trimmed, insuring trueness in fitting and operation and the revolving knife reel works in ball bearings, making it as light running as is possible for a mower to be that is furnished with so many close cutting knives. These mowers are furnished either with or without grass catchers. With the catcher is supplied a patent fan elevator that causes the fine cut grass to enter the box and stay there until it is dumped, which is quickly and easily done by lifting the box from its socket. (See engraving.) Prices (Strictly net, no charge for packing or cartage.) 16-in. cut, \$18.00; 18-in. cut, \$20.00; 20-in. cut, \$22.00.

Grass Catcher, complete for any size mower, \$3.00 extra.



TOWNSEND'S GOLF WONDER LAWN MOWER WITH GRASS CATCHER AND DEFLECTOR.

The Wirt Golf Tee Stand.

WE LETTER THE STAND WITH THE TEE HOLE NUMBER, AND PAINT THE LOWER BUCKET IN CLUB COLORS.

The Wirt Golf Tee Stand is an improvement which adds considerably to the convenience and therefore the enjoyment of the players, while its appearance is also very pleasing.

The upper and lower bucket carry water and sand respectively and are so arranged, that by merely tilting the top one forward, the water is poured on the sand in the lower one.

The brush fastened to the side of it, of course, for scrubbing the ball. The buckets are at just the proper height for quickly and easily washing the ball and forming the tee.

The stand, proper, is handsomely painted in green, and the club colors and hole numbers are usually painted on the buckets. The construction is most substantial, being of tubular steel. The frame may also be galvanized after assembling and in that way is practically soldered into one piece. This also affords complete protection from the weather.

The convenience of the Wirt Golf Tee Stand which is very apparent to every player together with its decorative appearance, make it most desirable for every up-to-date course. (See engraving.)



WIRT'S GOLF TEE STAND.

Price \$12.00.

Townsend's "Triplex" Horse Lawn Mower.

CUTS A SWATH 86 INCHES WIDE AT ONE PASSAGE OF THE MACHINE.

For large lawns, parks, golf courses, etc., it is a necessity. It cuts a swath over 7 feet (86 inches) wide; and does the work of two motor mowers at one eighth of the expense. The yoked-together mowers adapt themselves to uneven surfaces, mowing over ridges and through hollows as well as on level ground. Simple, durable and light running. Easily drawn by one horse—all day long—and operated by any man capable of driving.

With the Triplex Mower one man and one horse will cut more grass in a day than three men and three horses with three ordinary lawn mowers, and will cut as much grass as any two motor mowers, cut it better—without crushing the life out of soft turf—and at a small fraction of the cost.

The Triplex consists of three lawn mowers yoked together two abreast, and one following in the center, lapping each front mower, thus cutting a clear swath eighty-six inches wide. As the three mowers work independently of each other, and are so connected from their centers to the main frame that they can swivel, rise and fall, they therefore adapt themselves to the contour of the ground—floating over ridges and down hollows—mowing the grass as perfectly as on the level, and better than is possible with a long straight-edged bottom knife mower of any kind.

On rolling ground the Triplex Mower shows its qualities to perfection, holding to a side hill where a motor mower will slide sidewise. It is of extremely light draught, due partly to ball bearings and partly to the excellence of design, material and workmanship.

Three levers at the driver's right enable him to lift any one or all of the cutting apparatus from the ground to avoid obstructions, or in going to and from the field. A small knob in the center of each wheel operates the clutch throwing the machines in and out of gear.

The mower is provided with a spring seat, ample foot rests, shafts, iron tool box with tools and oil can. Net weight, 600 lbs.

The mowers are packed singly in crates, the frame work is shipped assembled. It is only the work of ten minutes to assemble the machines and attach the shafts (See engraving.)

Price, \$250.00 net, F. O. B. New York.



TOWNSEND'S "TRIPLEX" HORSE LAWN MOWER.

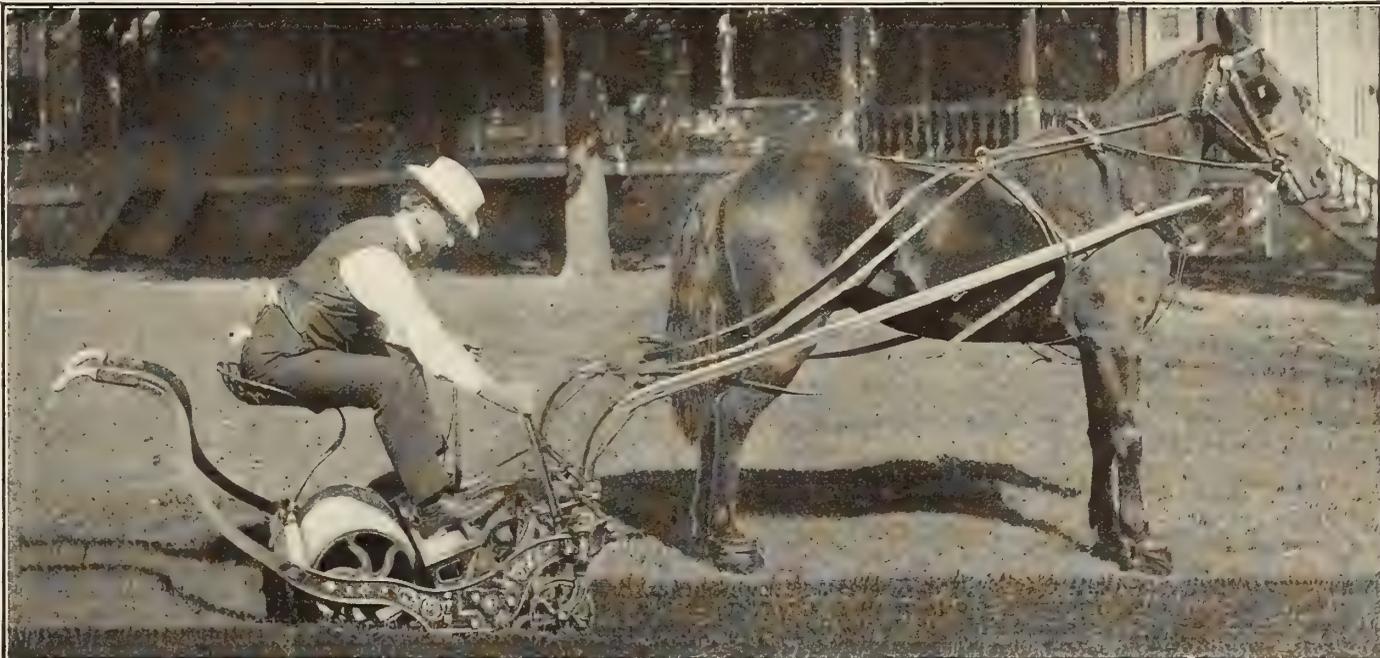
The New Henderson Horse Lawn Mower and Roller Combined.

USED ON THE FINEST PRIVATE LAWNS, PARKS, GOLF COURSES AND COUNTRY CLUB GROUNDS.

among which are,

- Newark Golf Club..... N. J.
- Fairmount Country Club..... N. J.
- Dyker Meadow Golf Club..... N. Y.
- Thousand Island Yacht Club..... N. Y.
- Eagle Nest Country Club..... N. Y.
- Ottawa Golf Club..... Can.
- Niagara Golf Club..... N. Y.
- Misquamicut Golf Club..... R. I.
- Westchester Country Club..... N. Y.
- Chevy Chase Club..... Md.
- Essex County Country Club..... N. J.
- Ardsley Golf Club..... N. Y.
- Burlingame Country Club..... Cal.
- Crescent Athletic Club..... N. Y.
- Oyster Bay Golf Club..... N. Y.
- Eagle Nest Golf Club..... N. Y.
- Savannah Golf Club..... Ga.
- Florida Country Club..... Fla.
- Elizabeth Town & Country Club, N. J.
- Sea Cliff Golf Club..... N. Y.
- Scarsdale Golf Club..... N. Y.
- Newark Athletic Club..... N. J.
- Hackensack Golf Club..... N. J.
- Mahopac Golf Club..... N. Y.
- Ikwanoock Golf Club..... Vt.

and others too numerous to mention.



LAWN BOOTS FOR HORSES.

These prevent the horse's hoof from cutting and marring the surface of lawns when the ground is soft or moist.

Henderson's Improved Leather Horse Boots.

These are of best quality and will not stretch out of shape like cheap boots. The soles are two thickness of best sole leather riveted together. These boots strap about the hoof and do not chafe nor wear off the hair like tall boots that fasten about the leg. In ordering send outline of hoof. Price, per set of 4, \$10.00. Medium, P.P. 9 lb.; large, P.P. 10 lb.

The Gregg Metal Horse Boot.

The best metal boot, very durable being entirely made of steel. It adjusts perfectly to the hoof by front and back screws and overcomes the objection or other metal boots that we are acquainted with which either fasten to the shoe, tending to loosen it or pull it off, or else fasten around the hoof

GREGG METAL HORSE BOOTS.



LEATHER HORSE BOOTS.



by a single clamp or screw at the back which tends to pinch in the frog. The Gregg Boot is made in 5 sizes. In ordering send outline of hoof.

Price, per set of 4, \$10.00.

THE NEW HENDERSON HORSE LAWN MOWER

AND ROLLER COMBINED.

FULLY WARRANTED. THE LATEST AND BEST.

Knives can be raised or lowered instantly. Side draught (applicable to either side) keeps horse off uncut grass.

This is the best horse-power mower manufactured, simple in construction, very durable; nothing but the very best steel and iron are put in it. It is quickly adjusted to cut high or low, and the arrangement for throwing in and out of gear and for raising the knives when passing over stones, rough places or roads is operated from the seat. The side draught (*applicable to either side*) keeps the horse on the cut grass and prevents trampling down that which is to be mown. The revolving knives are "high speeded," making a continuous cut and leaving the surface of the lawn as smooth as velvet. These mowers are fitted with a two-section roller and weigh, exclusive of shafts, 30-inch cut, 445 lbs.; 35-inch cut, 490 lbs.; 40-inch cut, 540 lbs.; to this may be added the weight of the man if he rides, thereby rolling the lawn with a very respectable weight at the same time it is cutting; or the cutter may be thrown out of gear by the movement of a lever and the machine may be used for rolling alone.

PRICES FOR THE HENDERSON HORSE MOWER.

Complete with seat, shafts and side draught, Strictly net, no charge for cartage or boxing.

30-inch cut, \$60.00

35-inch cut, \$67.00

40-inch cut, \$75.00

(Packed weight with shafts, 610 lbs.)

(Packed weight with shafts, 660 lbs.)

(Packed weight with shafts, 690 lbs.)

For MOTOR LAWN MOWERS Send For Our Special Literature.



HENDERSON'S "CHAMPION" SOD CUTTER.

A horse-power machine for cutting sod in long strips; an important and valuable implement for golf grounds, parks and other places which have much sod laying or repairing to do. It cuts the sod of uniform width and thickness, in any length, so that it is particularly adapted to giving solidity to slopes in cuts and on embankments, working equally well on level or uneven surface, cutting both ways with the land, and leaving no sod uncut, being light of draft, easily managed, strong, neat and durable. It is the best and cleanest, sod-cutting machine in America. Has a Reversible Knife made of one piece of steel. While one side dulls, the opposite edge is getting sharpened; cannot get choked. An adjustable Roller regulates the thickness of the sod from one-half inch to two inches; the front roller swings back under the guide-shoe and takes the weight when the machine is not cutting. The guide-shoe can be changed to either side in a minute; no friction or injury to the grass. The knife can be cleaned without turning over the machine. One machine will cut from 30,000 to 40,000 square feet per day, doing the work of forty men; the expense saved between cutting by hand and with horse power in one day is enough to pay the price of our machine. Instructions for operating furnished with every machine. Price, \$25.00. Extra knives, \$4.50 each.

HENDERSON'S SOD PERFORATOR.

An invaluable tool to aid in renovating bad spots in lawns, grass plots putting greens, etc. It is operated like a rammer the lower surface being provided with spikes which puncture the sod, leaving small holes into which much of the seed or fertilizer drops when broadcasted, thus preventing its being blown or washed away. The holes are filled with soil by the first rain, which covers the seed so it can germinate. Price, \$3.00.

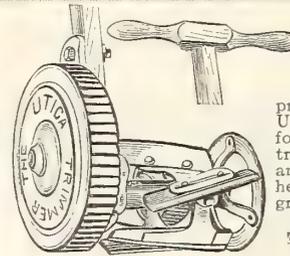
LAWN SCARIFIER.

Here is what every gardener and household wants, or any one having a grass plot or lawn. Father or mother, son or daughter, will take pleasure in breaking up the bare spots, sowing the "Henderson" Lawn Grass seed, and presto in a few weeks there is a green velvet carpet around your home. It is also of great value for use in city parks, on golf courses, lawn tennis courts, polo fields, hunt and race courses, in fact any place where grass has become worn out and bare. Price, \$5.00. Or with tamper attachment, \$3.50.

HENDERSON'S Sod Tamper.

Useful in laying new sod—and in tamping back sod that has heaved from frost or other causes—leveling hummocks in Putting Greens etc.—Cast iron 9½x9½ in. square, weighs, with handle 17 lbs. Price, \$1.00 each.

LAWN SCARIFIER, FOR USE ON OLD LAWNS.



The Utica Lawn Trimmer.

A similar but lower priced machine than the Universal, and designed for the same purpose. It trims close up to borders and edgings and is a great help in keeping lawns and grass plots trim. Price, \$3.50.



DANDELION EXTERMINATOR.

Destroys the root of the troublesome weed by chemical action.

Fill tank with Gasoline or Weed Destroyer and insert point in center of plant as far as the stop, hold instrument and lift up on valve stem, allowing the fluid to flow for an instant; release valve stem and remove instrument. Price, \$1.50.



THE UNIVERSAL LAWN TRIMMER.

The latest and best machine that we know of for trimming grass close up to the fence or wall thus reducing hand work with shears to a minimum. It will also be found handy for trimming up around trees, under bushes, etc., and in cemeteries it will be a boon. It cuts 6 inches in width. This Lawn Trimmer is a high grade machine in every respect with self-adjusting ball bearings preventing any "end play," thus keeping the knives always set, wearing to the same bevel and therefore always sharp. The handle being on line with driving wheel overcomes the tendency of the machine to run sidewise—so annoying in other machines designed for a similar purpose. Price, \$4.50.

THE PENNSYLVANIA ROTARY LAWN RAKE.

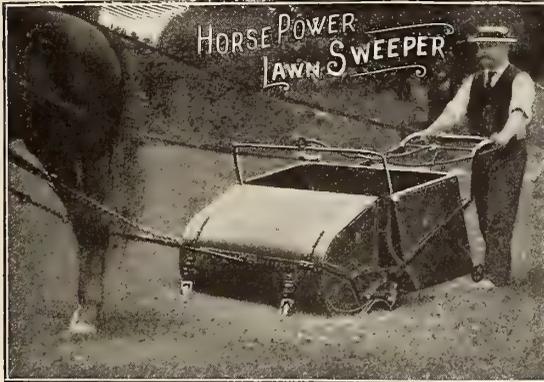
This machine will remove from the lawn not only the cut grass, but all sorts of litter leaves and trash, leaving the grass standing upright and free from foreign matter that prevents the sunlight and dew from getting to the roots. The action of the three revolving 24-

inch wire-tooth rakes is beneficial to the turf. It raises up the low growing crab grass and other spreading weeds, allowing the lawn mower to cut the seed pods off before they ripen, thus preventing their reappearing the following year. As these weeds and grasses are annuals, it is only necessary to prevent their going to seed for a season to get rid of them. This machine is easy to operate, and, with it, one man will do more and better work than four men with hand rakes.

Price, 24-inch machine, \$16.00. (Weight, packed for shipment, 90lb.)

Price, 36-in. machine, \$25.00. (Weight, packed for shipment, 125lb.)





Henderson's Wooden Putting-Green Roller.

A roller especially made to meet requirements in rolling and keeping in good condition both grass and clay "Putting Greens." It is used and endorsed by the green keepers of some of the best golf courses in the United States. The roller is four feet wide, having four 12-inch sections 10 inches in diameter made of turned rock maple, the ends of each section being banded with steel to prevent splitting. The entire face surface is very true, leaving no ridges or indentations on the "green." The width is sufficient to go over the green quickly, keep it level, and the weight, 150 lbs., just right for convenience in handling by one man and yet effective for rolling. It turns readily without scraping the green. This roller is also very useful for firming the soil when making up vegetable garden beds both before and after seeding. (See engraving.)

Cast Iron Putting-Green Roller.

With detachable scraper and collecting box

This is undoubtedly the most efficient roller on the market for Putting Greens. The Cylinder is made of cast iron in 4 ten-inch sections making the roller 40 in. wide. It is light in weight, and being in four sections is remarkably easy to handle. A new feature of this roller is that it is fitted with a scraper and collecting box for sticky worm casts—which when filled

may be taken off and emptied. Thus the cylinders is being continually cleaned while the roller is being used. A man can traverse the greens with great rapidity with this roller, and can easily keep them in good condition during the soft season. This roller is also

very useful for rolling garden beds after seeding. (See engraving.)

Weight, 190lbs. Price, \$25.00.



Horse-Power Lawn Sweeper.

A revolving brush in front sweeps the sod, cleans and throws the sweepings backward into a large box in the rear. This box can be dumped without stopping. Sweeps 40 inches wide.

The sweeper gives you a perfect lawn as soon as the sweeping is finished instead of looking gray for several days owing to the withered cut grass.

If the sweeper and lawn mower are run in opposite directions, the lawn will be the same shade of color all over. (See engraving.) Price, \$70.00.



"EVERWEAR" LAWN SWEEPER.

THE "EVERWEAR" Lawn and Walk Sweeper.

Special Golf-Green Sweeper.

This is a practical necessity for Putting Greens, Bowling Greens, Grass Tennis Courts, etc. It keeps the grass and turf in perfect playing condition. The machine is the same as the "Everwear" lawn sweeper described above, excepting that the revolving brush is composed of alternating tufts of palmetto fibre and spring steel wire—thus combining the brush and comb method of cleaning the turf clear to the roots and free from worm casts and ant hills as well as litter. Price, 28-inch Special Golf Green Sweeper, \$18.00. Rubber Tires Extra, \$2.00.

A large carpet sweeper-like machine, fitted with a revolving reel, 12 inches in diameter, composed of a series of eight Palmetto fibre brushes—the toughest and most durable fibre known and absolutely unaffected by water. All cut grass, leaves, litter, twigs, small stones, etc., are swept into the collecting box, which is dumped by simply pulling the chain. The machine can be adjusted for close or light sweeping adapting it for lawns, tennis courts, putting greens, etc., as well as walks and stable floors. The brush reels automatically take up the wear of the fibre brushes. The drive wheels are 15 inches in diameter, giving a powerful spin to the reel and pushing as easily as a lawn mower and reduces the labor of hours to a few minutes. Lawns swept with these sweepers have a bright, clean velvet-like appearance. Price, 24-inch Lawn Sweeper, \$14.00; 28-inch Sweeper \$15.00. (See engraving.)

Rubber Tires, extra, \$2.00 pair.

CAST IRON Putting-Green ROLLER.

Made specially to meet the demand for a light wide roller for the PUTTING-GREENS on Golf Links.

Fitted with scraper which scrapes worm casts and dirt off the rollers into a detachable metal collecting box.



Henderson's SUPERIOR IRON HAND ROLLERS.

These are very superior Rollers, the edges are beveled to prevent marking, the faces are ground smooth so they will not pick up and carry lumps of earth, the axles are of steel, the sections fit closely and the handles are of our improved design, will not break and are counterbalanced so they will always keep up from the ground, clean and out of the way.

The benefit derived from using a roller on the lawn is inestimable—and the heavier the roller the better. Freezing and thawing causes the sod-ground to heave, also too liberal watering with force washes soil from the roots of the grass—in either event, if the sod is not pressed down, the grass is apt to be burned out or injured in hot weather leaving the lawn full of bad spots. A lawn on which a roller is used is never troubled with moles.

The weights given are actual, which fact should be taken into consideration in comparing prices with rollers of manufacturers that run 15% to 25% less than advertised weights.

From 300 to 500 lbs. is the weight chosen for one-man power for average level lawns. Remember that the heavier the roller used on your lawn the finer sward you will have.

Horse-Power Attachment, can be applied to any Hand Roller though it will only be needed on the heavier Rollers, on which it will be found very useful, especially for hilly lawns.

Price, (not including Roller), complete with whiffletree, \$5.50.

No.	Diameter.	Total Length.	Actual Weight	Net Prices.	Weight Box extra.
1	15 inches	15 in. in 2 sec.	150 lbs.	\$8.25	—
2	15 "	22 " in 3 "	200 "	10.50	—
3	20 "	16 " in 2 "	225 "	12.00	—
4	20 "	20 " in 2 "	250 "	13.00	\$5.40
5	20 "	20 " in 1 "	250 "	13.00	5.40
6	20 "	24 " in 3 "	300 "	15.00	5.60
8	20 "	30 " in 3 "	350 "	18.00	5.85
9	24 "	20 " in 2 "	400 "	21.00	6.00
11	24 "	24 " in 3 "	450 "	22.00	6.30
12	24 "	30 " in 3 "	500 "	25.50	6.50
14	28 "	24 " in 3 "	500 "	25.50	6.50
15	28 "	30 " in 3 "	600 "	30.00	7.00
16	28 "	32 " in 4 "	650 "	32.50	7.25
17	28 "	36 " in 3 "	700 "	36.00	7.50

WEIGHT BOXES

For Henderson's Iron Hand Rollers
(see illustration)

can be supplied on any roller larger than number 3, at an extra price according to the size of roller, as quoted in column to the right. The weight box weighs about 50 lbs. and may be loaded with stone or iron to any desired weight.



HENDERSON'S
SUPERIOR
IRON
HAND ROLLERS.



The Henderson Patent Cast Iron Water Ballast Roller

The advantages of a roller, the weight of which can be increased or lightened at pleasure, can scarcely be over-estimated. Often on light or sandy soil, or on newly made lawns, or in early spring when the grounds is moist or after a rainy spell, a lighter-weight roller is a necessity; then on thick sward or on hard soil, on walks and roads, a heavy roller is needed. With a Henderson Water Ballast Roller one can secure any weight desired, between minimum and maximum, by simply removing a thumb-cap from each end and filling the two hollow sections with as much water or sand or through a funnel; and the roller is as quickly emptied. The inside being heavily galvanized, it will last for years.

These are perfect rollers, and do perfect work on lawns, tennis courts, golf grounds, roads, walks, etc. They are high-grade in every respect, being carefully manufactured of best material, and the diameter is large insuring a lighter draft for a given weight than is usual.

The Henderson Patent Water Ballast Roller for man power. Weighs 300 lbs.; loads with water or sand up to 600 lbs.; tracks, 24 inches, diameter of drums, 24 inches; counterbalanced handle, stands erect when not in use. Price, \$25.00.

The Henderson Patent Water Ballast Roller for one horse. Weighs 900 lbs.; loads with water or sand up to 1,500 lbs., or with driver and extra weights in box up to about 1,800 lbs.; tracks, 3½ feet; diameter of drums, 28 inches.

Price, complete with seat, shafts and single-tree, \$90.00.

SHEET IRON WATER WEIGHT ROLLERS.

No.	Diam.	Length.	Sections	Weight	Water Filled	Price
WB 5	18 in.	24 in.	1	80 lbs.	310 lbs.	\$11.50
WB 7	24 "	24 "	1	115 lbs.	500 lbs.	15.50
WB 13	24 "	32 "	2	160 lbs.	650 lbs.	21.50
WB 17	24 "	24 "	2	140 lbs.	500 lbs.	20.00

If weights to hold handle erect are wanted add \$1.50 per roller.

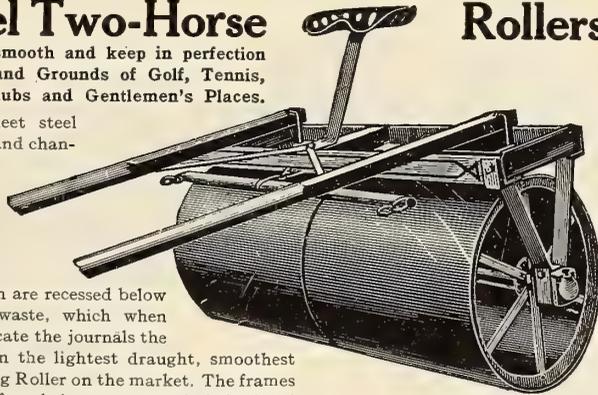


THE
HENDERSON
PATENT WATER
BALLAST ROLLER—
MAN POWER.

Sheet Steel Two-Horse Rollers.

Especially designed to smooth and keep in perfection Lawns, Drives, Walks and Grounds of Golf, Tennis, Athletic and Country Clubs and Gentlemen's Places.

Unbreakable rolled sheet steel drums, with steel felloes and channel steel spokes; thoroughly riveted and practically indestructible; axle of heavy stiff steel with lathe turned ends, working in oil soaked maple boxes which are recessed below and filled with cotton waste, which when soaked with oil will lubricate the journals the whole season, resulting in the lightest draught, smoothest and most noiseless working Roller on the market. The frames and hangers of heavy stiff angle iron are securely bolted and the frame so arranged that additional weight may be added to suit requirements.

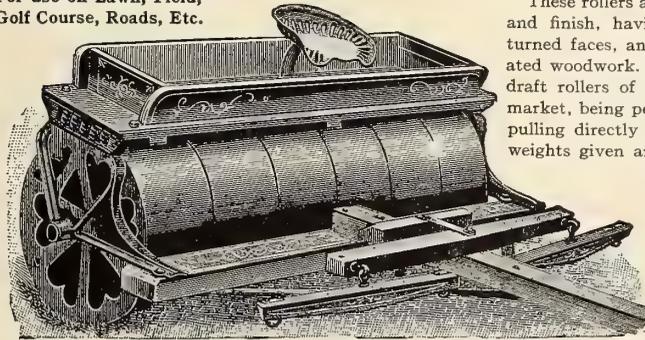


Sheet Steel One-Horse Roller. Price includes shafts, whiffletree and seat.
No. 2, 24 in. diam.; tracks 5 ft., 5 in.; 2 sections; weight 429 lbs. Price, \$30.00

Sheet Steel Two-Horse Rollers. Price includes double trees and neck yoke.
No. 16, 24 in. diam.; tracks 7 ft. 3 sections; weight 552 lbs. Price, \$32.00
No. 34, 30 " " " 8 " 3 " " 705 lbs. Price, \$40.00

Henderson's Superior Iron Rollers. HORSE POWER.

For use on Lawn, Field, Golf Course, Roads, Etc.



These rollers are of superior quality and finish, having smooth machine turned faces, and attractively decorated woodwork. They are the lightest draft rollers of equal weight on the market, being perfectly balanced and pulling directly from the axle. The weights given are actual, which fact should be taken into consideration in comparing prices with rollers of other manufacturers that run 15 to 25 per cent. less than advertised weights.

	Number.	Diameter.	Sections.	Track.	Weight.	Net Price.	
Iron One-Horse Rollers.	60	20 inches	4	4 feet	950 lbs.	\$50.00	
	61	20 "	5	5 "	1150 "	58.00	
	Complete with Weight Box, Shafts and Seat.	62	24 "	4	4 "	1200 "	62.00
	63	24 "	5	5 "	1450 "	72.00	
	64	24 "	6	6 "	1700 "	83.00	
	65	28 "	4	4 "	1350 "	69.00	
	66	28 "	5	5 "	1650 "	82.00	
<i>(If scraper is wanted, add \$6.00 per roller.)</i>	67	28 "	6	6 "	1950 "	95.00	
Iron Two-Horse Rollers. Prices include weight box, seat and tongue. <i>If whiffletree and neck yoke are wanted add \$4.00 per roller # scraper is wanted add \$6.00 per roller.</i>	70	20 inches	5	5 feet	1150 lbs.	\$58.00	
	71	20 "	6	6 "	1300 "	64.00	
	72	24 "	5	5 "	1450 "	73.00	
	73	24 "	6	6 "	1700 "	83.00	
	74	28 "	4	4 "	1350 "	69.00	
	75	28 "	5	5 "	1650 "	82.00	
	76	28 "	6	6 "	1950 "	95.00	
	77	32 "	4	4 "	2200 "	115.00	
	78	32 "	5	5 "	2600 "	130.00	
	79	32 "	6	6 "	3000 "	150.00	

Steel Drag Scrapers.

These scrapers are made of a single sheet of steel, pressed into the best and most practicable shape for working. The swivel on the bale allows side dumping. Prices:

No. 1, carries 7 feet of earth.....\$8.00
" 2, " 5 " " 7.50
Runners on bottom 75c. extra.

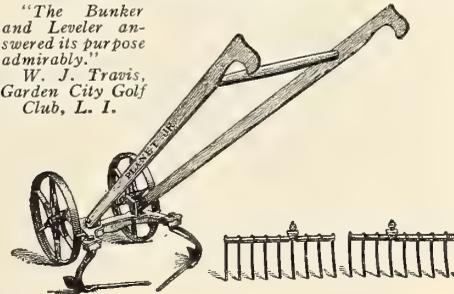


STEEL DRAG SCRAPER.

The "Planet, Jr." Bunker and Trap Weeder AND LEVELER FOR GOLF COURSES.

This new member of the family has been brought out to meet the demands from the greens keepers of various golf courses for a tool with which to keep the sand in the bunkers free from weeds and in good condition. It is used at the speed of a moderate walk, a forward stroke being made at each step. Admirable as a wheel rake and leveler, finishing a strip thirty inches wide at each passage. It has been used extensively in England and Scotland and gave such excellent satisfaction that we now offer it here and give below some testimonials from courses where it has been used for years two past. A few were sold for the first last year in America and proved satisfactory in every respect. Price, \$8.00. Packed weight, 33 lbs.

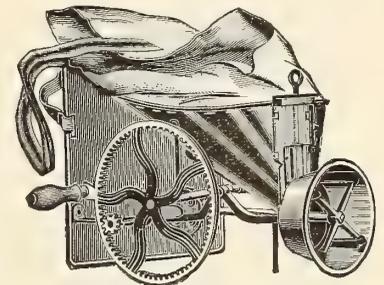
"The Bunker and Leveler answered its purpose admirably."
W. J. Travis,
Garden City Golf Club, L. I.



Cahoon's Improved Broadcast Seed Sower.

Will sow all kinds of grass and grain seeds from 4 to 8 acres per hour at a common walking gait. Heavy seeds, such as wheat, it will throw 40 ft. (20 ft. each side of the operator); lighter seeds, of course, will not be thrown so far.

Price, \$3.50. P.P., 8 lbs.

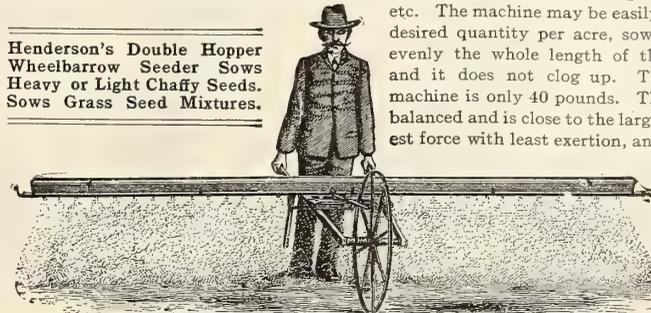


CAHOON'S BROADCAST SEEDER.

The Henderson Double Hopper Wheelbarrow Seeder.

This is a superior Seeder. One side of the Seed Box is adapted for all such heavy seeds as clover, timothy, millet, alfalfa, Hungarian, etc. The opposite side handles the light chaffy seeds, as Red top, Kentucky blue, Orchard grass, etc., as well as grass seed mixtures for golf, pasture, hay, lawns, etc. The machine may be easily regulated to sow any desired quantity per acre, sowing it accurately and evenly the whole length of the hopper—14 feet—and it does not clog up. The total weight of the machine is only 40 pounds. The hopper is perfectly balanced and is close to the large wheel—giving great force with least exertion, and leaving light weight on the operator. Every machine warranted to do good work, and of especial value on a windy day. Full directions with each seeder.

Henderson's Double Hopper Wheelbarrow Seeder Sows Heavy or Light Chaffy Seeds. Sows Grass Seed Mixtures.



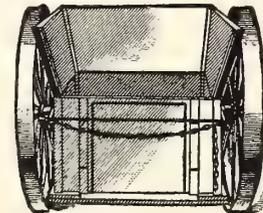
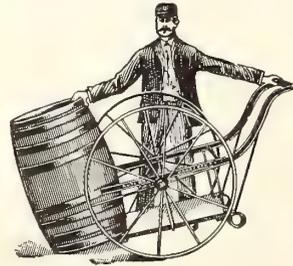
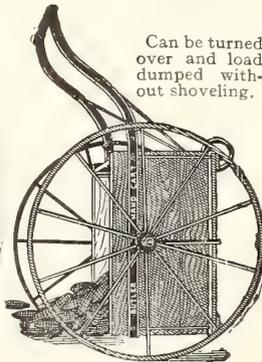
Price, \$10.00.



The "Henderson" Hand Bucket Pump.

This is the best and most durable portable hand pump in the market. Working parts are made of solid brass with large air-chamber, and is double acting throwing an absolutely continuous stream, either solid or in a fine spray as desired. Very light and easily carried, and works from any bucket or tub. Just the thing for throwing liquid insecticides and fungicides on low trees, shrubs, plants, etc., and by altering the nozzle it can be used for washing carriages, windows, etc. (See cut). Price, with 3 feet of hose and combination spray and stream nozzle, \$3.75; or with extra 7 feet section of hose and pole connection for tree spraying, \$4.75.

THE BUTLER STEEL HAND CART.



Can be turned over and load dumped without shoveling.

Tilts forward and picks up a barrel or heavy article like a warehouse truck. Any barrel can be handled. Useful for spraying.



Henderson's WATER BARREL TRUCKS AND ACCESSORIES.

The Barrel is raised from the ground, carried to the place desired, and can be readily disconnected from or attached to the truck while barrel is either full or empty. We supply as extra attachments the following: A Box with trunnions and spring catch, making a very superior dumping Hand-cart; A Sprinkler, invaluable for watering lawns and sprinkling walks (water is turned on and off by hand wheel and ball valve); A Leaf Rack, very useful for removing leaves and litter; A "Gem" Force Pump for spraying, etc.

Prices.—Truck and barrel 1 1/2 in. tire.....	\$12.00	Extra trunnions, per pair.....	0.50
" " " 2 1/2 " ".....	13.00	Hand-cart Box Extra.....	3.00
" " " 3 1/2 " ".....	14.00	Leaf Rack ".....	5.00
Extra barrel, with trunnions on.....	3.25	Sprinkler attachment.....	3.25

(If truck and trunnions without barrel are wanted, deduct \$2.75 from prices of trucks with barrel.)



GEM FORCE PUMP.
Clamps to the barrel; a low-priced pump for spraying a few trees, bushes, etc.
Prices, Outfit "A" with 5 1/2 feet of 3/4-in. hose and nozzle, \$6.00; Outfit "B," same as "A" excepting hose is 1 1/2 ft. long, \$7.00.

THE BUTLER STEEL HAND CART.

The Butler Steel Hand Cart fills the want for a two-wheel cart better than any other invention. Its usefulness is unlimited, and is not confined to one special purpose. It will handle fruit, garden vegetables, grain, leaves, cut grass, trash, ensilage, manure, fertilizer, tools, barrels, kegs, boxes, packages, etc. Nothing equals its perpetual usefulness about the lawn, yard, stable, farm, dairy, creamery, garden and orchard. Light in weight, great strength and easily handled. If numbers sold is any criterion of merit, this is unquestionably the cart of the future.

DESCRIPTION.

Wheels.—Steel, 36 inches high. Tires.—Regular, 1 1/2 inch, or 3-inch. Width.—Between wheels, 36 inches; from out to out of hub, 42 inches. Axle and all frame parts steel. Will easily sustain a load of 500 lbs. Platform.—Hard Wood, 28x32 inches.

Side Boards.—15 inches high, hard wood, instantly removable, leaving cart in shape for handling barrels, boxes, milk cans, etc., Flaring Hopper.—Sides and ends extend 12 inches above the box. Painting.—Body red, neatly striped; wheels bright green.

PRICES, BUTLER STEEL HAND CARTS					
		With 2 in. Tire.		With 3 in. Tire.	
No.	Description	Price.	Weight.	Price.	Weight.
No. 1.	Plain, without box (Figs. A, B, C)	\$8.00	95 lbs.	\$10.00	125 lbs.
No. 2.	With detachable box (Figs. D, E, F)	10.00	125 "	12.00	155 "
No. 3.	With detachable box and Flaring Hopper (Fig. G).....	14.00	150 "	16.00	180 "

Note.—Unless otherwise ordered, we send 2 inch tire wheels.

Flaring Hopper.—Sides and ends 12 ins. high, extend upward from the regular cart box, for handling leaves, trash, grass, ensilage, manure, etc. Capacity, about 11 bush. Showing wheels with 3-in. tires.

Small Size Water Barrel and Truck.

(See Implement Catalogue page 43.) Barrel, 30 gallon capacity, double-headed, so that hole may be cut for spray pump or the head may be removed. Truck has 30 in. wire wheels with iron rims 2 inches wide. For a spray pump suitable for this 30 gallon barrel we recommend our "Fruit-all" see Implement Catalogue page 58. Prices: Truck, \$8.50; Barrel, with trunnions, \$2.00. Leaf Rack, 20 x 54 x 24, \$6.00. Hand Cart Box, 20x29x7 in., \$3.75.

Lawn Sprinklers

Lawns need an abundance of water if a luxuriant growth is to be maintained during hot dry weather. If the soil was originally plowed very deeply to induce deep root action, the necessity for artificial watering is not as great, but lawns laid down in this thorough manner are not very numerous in this country. It is therefore necessary on lawns with the average thin turf to water or "sprinkle" frequently. In such cases a good lawn sprinkler is absolutely necessary, being far superior to a hose nozzle. The latter usually throws too strong a stream, eventually washing the earth from the roots of the grasses leaving them exposed to the hot sun and causing the grass to burn up. With a lawn sprinkler the same flow of water is broken up and uniformly distributed over a large area in the form of fine gentle rain, thoroughly saturating the ground covered without any injurious washing out.



THE CAMPBELL AUTOMATIC SPRINKLER

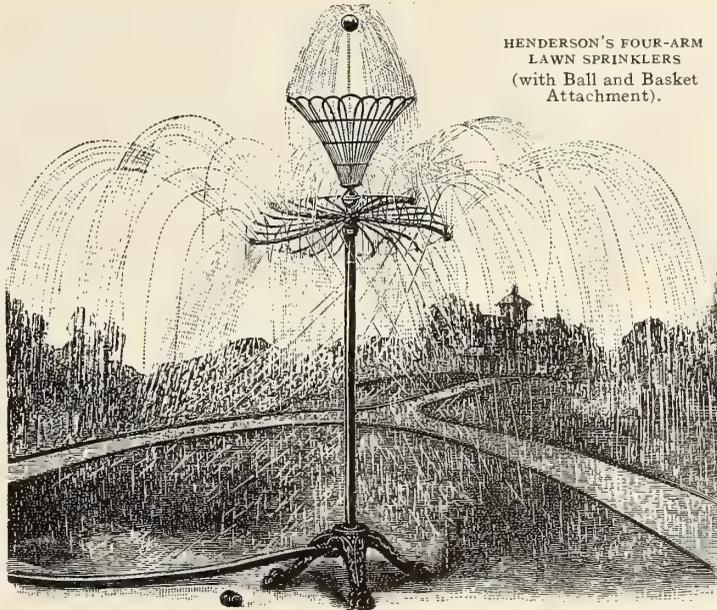
CAMPBELL Automatic Sprinkler

is constructed of brass, with the exception of the ball-bearings which are bell metal and bronze. The machine has two discharge tubes, and the water being forced under pressure from the stand pipe through the sprinkler, is projected a great distance, the machine being revolved by the reaction of the atmosphere against the stream, which in emerging from the small tube, is broken up and evenly distributed at a considerable distance from the stand pipe, in a circle of 50 to 60 feet in diameter. (See engraving.) Price, \$3.50.

The Skinner "Lawn Mist" Irrigator.

This is the famous "Skinner Irrigation System" on wheels and therefore portable. This sprinkler may be placed and moved anywhere on the lawn or in the garden where it can be connected to the garden hose. Its advantages are that it waters a large area with but little attention. The water is distributed evenly and gently in a fine spray which does not pack or crust the ground nor wash soil from the roots of grasses or plants. The chill is taken off the water for the drops absorb warmth from the air before descending and cool the atmosphere. The refreshing effect on a sultry night is most noticeable. The Skinner Lawn Mist Irrigator is a length of galvanized pipe into which are fitted about every three feet apart, clusters of small spray nozzles so arranged that the distribution of water is entirely uniform the entire length of the pipe—and over a width of from 16 to 20 feet according to the volume of pressure of the water supply. A 12 foot section of pipe is fitted to 4 sets of nozzles, a 15 foot section to 5 sets and an 18 foot section to 6 sets of spraying nozzles. A 15 foot length operating under a 30 lb. pressure will distribute about 5 gallons of water per minute, other lengths in proportion. Where the water supply and pressure is sufficient two or more lengths of pipe may be connected and operated at one time and if the extra lengths are fitted with our "flexible couplings" the pipes may be placed at different angles as may be desirable. The Skinner

"Lawn Mist" Irrigator works best with a water pressure of 30 lbs. or more though very satisfactory results are given with pressures as low as 20 lbs. Each section is fitted to a neat 2 wheel truck at one end and a shoe runner at the opposite end. Coupled for $\frac{3}{4}$ hose. (See engraving.) Price, per 12 foot section, \$8.00; 15 ft. section, \$9.00; 18 foot section, \$10.00. Flexible coupling to connect two sections, 75c. each.



HENDERSON'S FOUR-ARM LAWN SPRINKLERS (with Ball and Basket Attachment).

Henderson's 4-Arm and 8-Arm Lawn Sprinklers

This is the best lawn sprinkler made. It can be attached to hose and placed anywhere on the lawn, where it serves the double purpose of being a beautiful fountain and a very efficient lawn sprinkler at the same time. The water is distributed in fine drops over an area of 60 to 100 feet in circumference, according to the water pressure. An ornamental standard, about four feet high, is surmounted with long perforated arms, which revolve, so that the beautiful sprays are constantly changing. (See engraving.) Prices, 4-arm sprinkler, \$3.00; 8-arm, \$3.50.

BALL and BASKET. This fits on top of the Henderson sprinkler, and the stream of water keeps the silvered ball dancing on its summit up in the air. When the ball falls the basket catches it, and it rolls into the centre and is again raised by the water. Price, \$3.00 extra.

The Sunset Sprinkler.

Does the work of two sprinklers. When the little thumb nut is screwed up the Sunset covers a perfect half circle, enabling the user to give his lawn a thorough drenching right up to the edge of the sidewalk without wetting the walk itself. When the little thumb nut is screwed down the Sunset sprinkles a full circle, gently but thoroughly, covering an area 25, 30, or 35 ft. in diameter, on the water depending on the pressure. It can be easily dragged around the lawn without tipping. (See engraving.) Price, \$1.25.

P.P. 3 lbs.

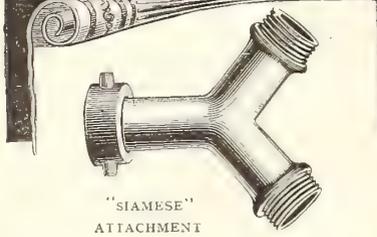
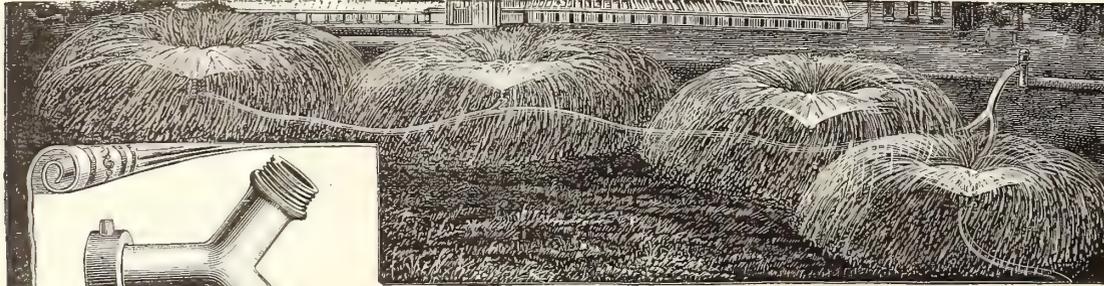


THE RING LAWN SPRINKLER.

The simplest lawn sprinkler made—no revolving parts to wear and get out of order or leak. Easily moved about the lawn—made of polished brass—light, durable and economical. (See engraving.) Price, 60. P.P. 1 lb.



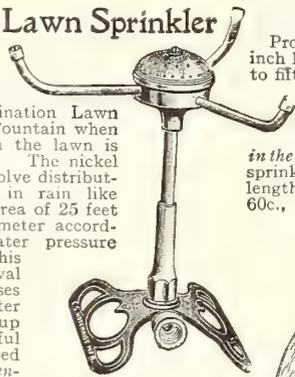
THE SKINNER "LAWN MIST" IRRIGATOR.



"SIAMESE" ATTACHMENT

Universal Lawn Sprinkler and Fountain.

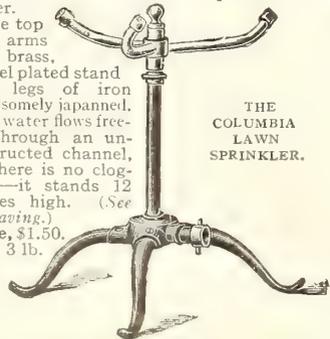
This combination Lawn Sprinkler and Fountain when in operation on the lawn is very attractive. The nickel plated arms revolve distributing the water in rain like drops over an area of 25 feet or more in diameter according to the water pressure. In addition to this the central oval Spray cover causes some of the water to be thrown up forming a beautiful umbrella shaped fountain. (See engraving.) Price, \$2.50 each. P.P. 4 lb.



"Columbia" Three-Arm Lawn Sprinkler.

This fills the want for a low-priced arm Sprinkler; it is compactly and strongly made with phosphor-bronze bearing and will cover a space 48 feet in diameter with suitable pressure of water.

The top and arms are brass, nickel plated stand and legs of iron handsomely japanned. The water flows freely through an unobstructed channel, so there is no clogging—it stands 12 inches high. (See engraving.) Price, \$1.50. P.P. 3 lb.

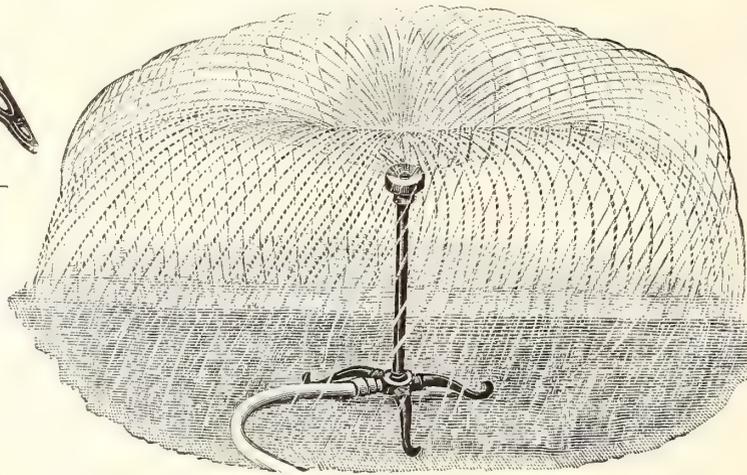


THE COLUMBIA LAWN SPRINKLER.

HENDERSON'S "Siamese" Lawn Sprinkler Attachment.

By using these several sprinklers can be used at one time.

Providing the pressure and volume of water are sufficient. A three-quarter inch hose and thirty to forty pounds pressure will operate three sprinklers; a forty to fifty pounds pressure; four sprinklers; with one inch hose and a good pressure, six sprinklers can be operated satisfactorily. This method of watering is valuable for thoroughly saturating large areas of lawn or garden, distributing the water more evenly and thoroughly than can possibly be done with a hose nozzle. We found "Water Witch" Lawn Sprinkler (with spur to stick in the ground), offered on this page, the best sprinkler for the purpose. One of these sprinklers and the "Siamese" was applied at the end of every twenty five foot length hose. (See engraving.) Price, "Siamese" Attachment for 3/4 inch hose, 60c., P.P. 1 lb.; for 1-inch hose, 75c. P.P. 1 lb.



THE SHOWER SPRINKLER.

THE SHOWER LAWN SPRINKLER.

One of the most satisfactory lawn sprinklers we offer. It is very simple—no parts to revolve, squeak, clog, wear or get out of order. No arms to break off, it is a round box like affair—about 3 inches in diameter by 1 inch in depth with a turbine arrangement inside which gives the water passing through a swivel causing it to pass through the single opening and be distributed over a circular area 25 ft. or more in diameter according to the water pressure. The water descends evenly from center to circumference in the form of fine rain. Price, on stand, \$2.50. P.P. 4 lb., without stand to be used as a nozzle. (See engraving.) \$1.25, P.P. 1 lb.

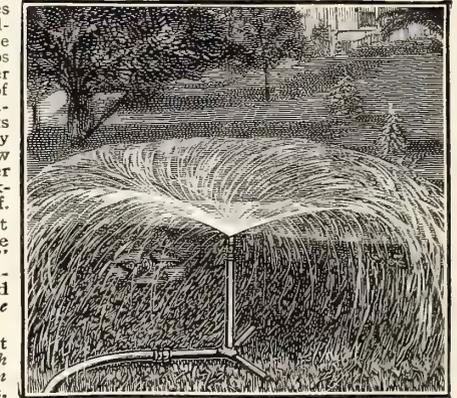
"Water Witch" Lawn Sprinklers.

An effective device for sprinkling lawns, gardens or flower beds. The water flows with unimpeded force, and is divided and deflected by the two lips of the swivel piece, which it causes to revolve rapidly, scattering the water in fine drops and evenly over a circular area of 25 to 40 ft. diameter. It works more satisfactorily with a very low pressure of water than any sprinkler we know of.

This is the best sprinkler to use with the "Siamese" lawn sprinkler attachment offered on this page. (See engraving.)

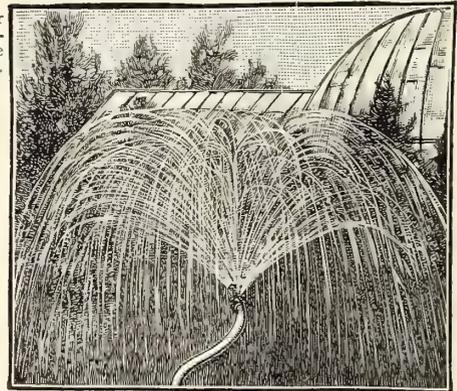
Price, without stand (i. e., with spur to stick in the ground, 40c. each, P.P. 1 lb.

Price, with stand, \$1.00 each, P. P. 3 lb.



WATER WITCH LAWN SPRINKLER ON STAND.

For Horsepower Sprinklers see Implement Catalogue sent free on request.

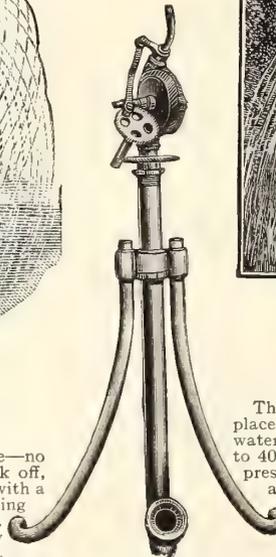


WATER WITCH SPRINKLER ON SPUR.

The Turbo Irrigator.

For Lawns, Gardens, Golf Greens, Etc.

This sprinkler, mounted on its tripod, may be placed anywhere and coupled to garden hose will water an area 25 to 50 feet from the center or 150 to 400 feet in circumference, according to the water pressure. A single stream, broken into a rain of drops and spray is thrown from the nozzle, which the mechanism causes to rise and fall as it is slowly revolved around the machine, so that every portion of the ground covered is thoroughly and evenly watered from center to circumference. (See engraving.) Price, \$12.00.



THE TURBO IRRIGATOR

Henderson's "Best Para" Rubber Hose.

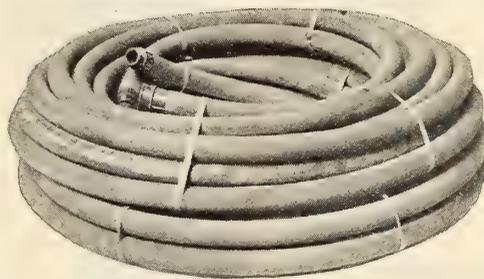
This is the highest grade of garden hose, being made entirely from New Para Rubber, and will outlast cheap hose three times over. We guarantee it to stand a 300-pound water pressure, and it will be as resilient in three or four years time as when new, while cheap hose of that age will be hard and rotten. Every length of Henderson's "Best Para" Hose is fitted with the new watertight couplings, without extra charge. (Hose is furnished only in 25-foot and 50-foot lengths; the sizes $\frac{3}{4}$ and 1 inch refer to the internal diameter of the bore.)

$\frac{3}{4}$ -inch bore Para, per 25-foot length, \$4.25, per 50-foot length, \$8.00. 1-inch bore Para, per 25-foot length, \$6.50; per 50-foot length, \$12.00

REVERO GARDEN HOSE.

A very high grade seamless hose, vulcanized under pressure after the fabric is wound which forces the rubber through the mesh from lining to circumference, thus making a hose free from weak spots; un-leakable and un-kinkable. Although the first cost of Revero Hose is more than for ordinary hose yet it will prove a good investment in the long run and avoid the annoyance of working with leaky hose, patching and loss of volume and force of water.

Price, in 25, 50 or 100 foot lengths with patent couplings attached: $\frac{3}{4}$ -in. bore @ 25c. per foot; 1 inch bore @ 33c. per foot.



HENDERSON'S "BEST PARA" HOSE.

"Standard Quality" Rubber Hose.

This is a grade that is often sold as the "best." It is a good hose and will stand a 100-pound pressure. Each length is fitted with the regular couplings, without extra charge. For $\frac{3}{4}$ -inch Spray Pump Hose and Tubing see below.

$\frac{3}{4}$ -inch Standard, per 25-foot length, \$3.00; per 50-foot length, \$5.75.

1-inch Standard, per 25-foot length, \$4.25; per 50-foot length, \$8.00.

ELECTRIC GARDEN HOSE.

Electric Garden Hose isn't a "duck-wrapped" hose, but built up from the inside to the wrapper in such a way as to insure maximum service. Electric Hose will not burst, crack or split. Is made of seamless seine twine jackets and rubber tubes. Prices including couplings:

Price, $\frac{3}{4}$ inch bore, per 25-foot length, \$5.00; 50-foot length, \$9.50.

1 inch bore, per 25-foot length, \$7.00; 50-foot length, \$13.50.

SPRAY PUMP DISCHARGE HOSE.

Cut any length, 10 ft. up to 50 ft. $\frac{3}{4}$ inch bore, 12c. per foot (couplings extra 25c. set). $\frac{1}{2}$ inch red tubing 10c. per foot, cut any length, 3 to 50 feet. Couplings extra, 15 cents per set.



THE KINNEY PUMP.

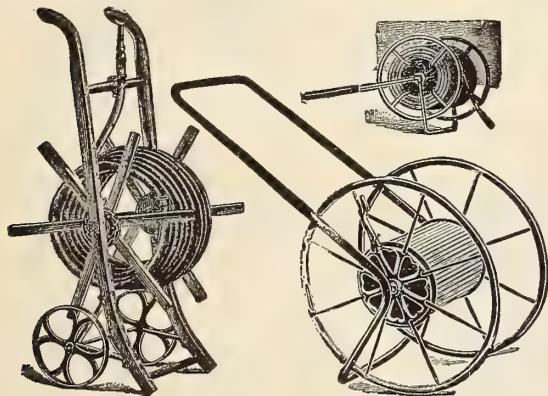
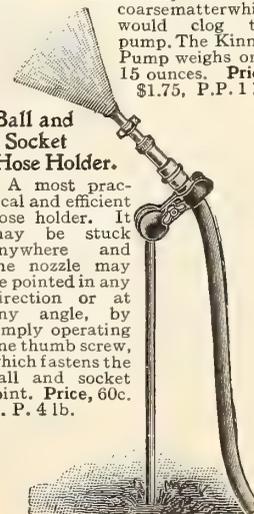
—THE KINNEY— Liquid Manure Pump.

For applying liquid manure this pump has no equal. Enough labor is often saved in feeding a house of plants once to pay for the pump. The water pressure does the pumping. Being made entirely of brass and nickel plated, these pumps are not corroded by chemicals and they do not wear out.

It will apply from 5 to 15 gallons of liquid fertilizer a minute. There is no waste. You screw the pump to the faucet, put the end of the suction hose into a barrel or tank of clear liquid manure, attach the three-fourths inch discharge hose, open the faucet, and go to the end of the hose. The liquid manure follows, and will keep coming as long as you want it, or until the supply in the barrel or tank is exhausted—provided the liquid manure is reasonably free from coarse matter which would clog the pump. The Kinney Pump weighs only 15 ounces. Price, \$1.75, P. P. 1 lb.

Ball and Socket Hose Holder.

A most practical and efficient hose holder. It may be stuck anywhere and the nozzle may be pointed in any direction or at any angle, by simply operating one thumb screw, which fastens the ball and socket joint. Price, 60c. P. P. 4 lb.



BENT LEG HOSE REEL.

ALL IRON HOSE REEL.

ALL IRON HOSE REEL.

Note position of reeling and unreeling hose. The All Iron Hose Reels are constructed entirely of iron, and are indestructible; light in weight, frictionless, and the wheels being high make it easily manipulated; these reels cannot tip over when unreeling and there is no weight of hose to carry on the handle.

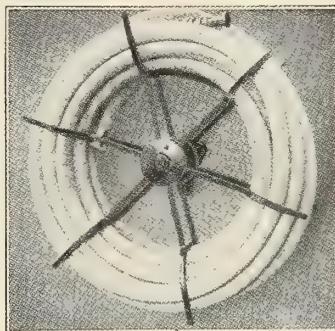
No. 10, 21-in. holds 100 ft. $\frac{3}{4}$ -in. hose \$3.25
No. 20, 24 " " 150 " " 3.50
No. 30, 30 " " 500 " " 5.00

BENT LEG HOSE REEL.

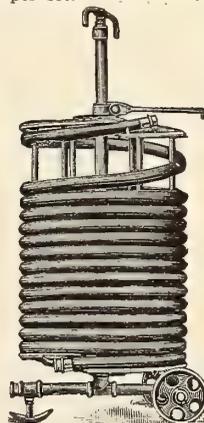
The best wooden reel made—not easily tipped over. The ratchet prevents unwinding unless it is desired to throw back the clutch.
No. A, for 100 feet of $\frac{3}{4}$ -in. Hose \$2.25 No. B, for 200 feet of $\frac{3}{4}$ in. Hose, \$2.50

"HOLE-PROOF" HOSE HANGERS.

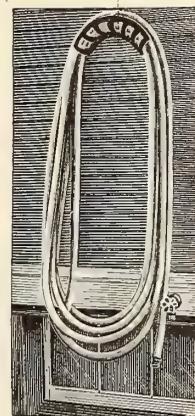
"Hole-Proof Hose Hangers" drain, dry and protect your hose when in use; preserve it when stored; insure it against holes, cracks and checks, and double its life and usefulness. Compact, convenient and inexpensive. Large size carries 100 ft. hose, 75c., mail weight 5 lb.; small size, carries 50 ft. of hose, 60c. Mail weight 4 lb.



SIMPLEX HOSE REEL.



HOSE DRAINING REEL.



HOSE HANGER.

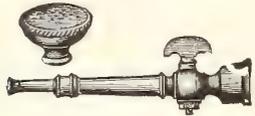
HOSE DRAINING REEL and LAWN SPRINKLER.

The life of hose is considerably lengthened when regularly and thoroughly drained. On this new reel hose may be wound in gradually ascending coils so that it naturally self-drains when placed in the vertical position shown in the illustration, though when reeling and unreeling the hose the truck is placed in a horizontal position. This reel is also equipped with a splendid lawn sprinkler head, rendering it doubly useful.

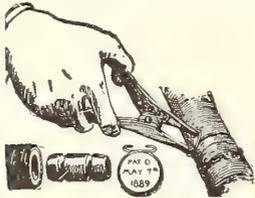
Price, No. 1, for 50 ft., $\frac{3}{4}$ -inch hose, \$4.50. No. 2, for 100-ft., $\frac{3}{4}$ -inch hose, \$5.00.

SIMPLEX HOSE REEL.

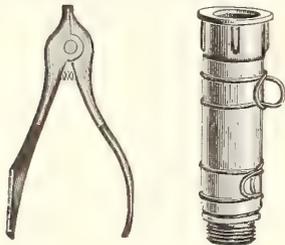
A stationary reel to be attached to wall or side of a building or fence in any convenient place. Just the thing for small gardens where a portable reel is in the way, and where only 25 to 50 feet of hose is used. The smallest diameter of the arms is 12 inches, and when filled with 50 ft. of $\frac{3}{4}$ in. hose, the outside diameter is about 22 inches. The Simplex reel is shipped "knocked down" with all necessary parts and screws to put together and fasten up. Mail weight 6 lbs. Price, \$1.50.

BRASS HOSE NOZZLE.

With stop-cock, spray rose and stream. Prices, $\frac{3}{4}$ -inch hose, \$1.00 for 1 in., \$1.25 P.P. 1 lb.

HUDSON'S HOSE MENDERS.

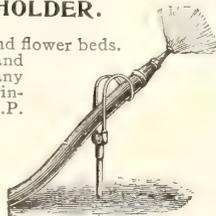
Practical, simple, perfect. PRICE, per box of 6 tubes, 20 bands and 1 pair pliers, 75c.; P.P. 1 lb. (Give size of hose.) TUBES, $\frac{3}{8}$ in. 2c.; $\frac{1}{2}$ in. 3c.; 1 in. 4c. each. BANDS, 20c. per dozen. PLIERS, 30c.; P.P. 1 lb.

CALDWELL'S HOSE STRAP.

The best device for attaching hose couplings. Hose straps for $\frac{3}{8}$ in. hose, 15c. doz.; P.P. 4 oz. $\frac{1}{2}$ in. hose, 15c. doz.; P.P. $\frac{1}{2}$ lb. 1 in. hose, 20c. doz.; P.P. 1 lb. Pliers 20c.; P.P. 1 lb.

GEM NOZZLE HOLDER.

For watering lawns and flower beds. The hose is held firmly and can be adjusted to any elevation in an instant. 25c. each, P.P. 1 lb.



GEM NOZZLE HOLDER.

The "Graduating" Spray Nozzle.

Will throw a coarse or a fine spray, a large or a small solid stream. The spray can be closely contracted or made to cover a large area. These results are obtained by revolving it part way round. PRICE, $\frac{3}{4}$ in., 50c.; 1 in., 70c.; P.P. 1 lb.

THE "COOPER" BRASS HOSE MENDER.

Made of thin brass tubing: will not rust or wear out; scarcely decreases the flow of water. Easily applied by any one; simply cut your bad piece of hose and force the ends of the good hose over the mender until they meet in the center. No other fastening is required; the bars will hold it firm and no matter what strain is put on the hose it will be as good as new at the point mended, and will not leak. PRICE, for hose with $\frac{3}{8}$ in. bore, 7c. each, 75c. doz., P.P. 1 lb.; for hose with $\frac{1}{2}$ in. bore, 7c. each, 75c. doz., P.P. 1 lb.; for hose with 1 in. bore, 8c. each, 85c. doz.; P.P. 2 lb.



GARDENERS' RUBBER APRONS

GARDENERS' RUBBER APRONS.

Made of heavy drill, double rubber coated, black water proof; size 3 feet 9 inches in length by 2 feet 9 inches in width; weight 2 pounds each. Indispensable for protecting the clothes during potting and gardening operations. Price, \$1.75 each, (P.P. 2 lb.).

LEGGIN-RUBBERS.

Heavy rubbers with leggin tops of heavy duck, double rubber coated, black only. Intended to pull on over the shoes. Very useful for protecting the feet and legs when working among damp foliage and other garden and farm operations. The men's long leggin-rubbers are 33 inches from heel to top with adjustable supporting straps through which a waist belt may be run. The men's short Leggin-Rubbers are 18 inches from heel to top which is drawn together with a rubber strap for support. In ordering give size of shoes worn. Prices-

Men's Long, \$4.50 P.P. 4 lbs.; Short, \$3.50, P.P. 3 lbs.

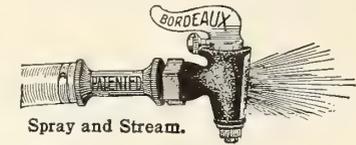


LEGGIN-RUBBERS.

Florists' and Gardeners' Hose Sprinkler.

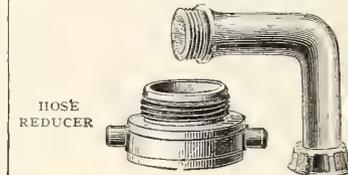
A wide face nozzle. The holes are small and numerous, so that a copious yet gentle shower is given without washing or packing the soil.

PRICE, for $\frac{3}{4}$ in. hose, 3 in. f. ce, 85c.; 4 in face, \$1.10; P.P. 1 lb.

**BORDEAUX NOZZLE.**

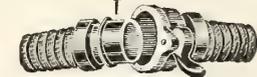
Spray and Stream.

A combination spraying, sprinkling or solid stream. It throws solid stream or fan-shaped spray adjustable to any fineness; is readily degorged by turning the cock handle. It will also throw a long distance coarse spray for spraying very large trees; or it may be shut off altogether. Price, for either $\frac{1}{2}$ inch pipe or $\frac{1}{4}$ or $\frac{3}{8}$ inch hose, 75c. P.P. 5 oz.

HYDRANT SWIVEL CONNECTION.

HOSE REDUCER

Turns in any position, prevents hose from kinking. For $\frac{3}{4}$ in. hose, 75c., P.P. 1 lb. Hose Reducer. 1 in. to $\frac{3}{4}$ (mailed free), 30c.

LIGHTNING HOSE COUPLER.

Instantly attached or disconnected; no twisting of the hose, no bruising fingers, watertight. (State if wanted to replace old couplings or to be attached to them.) Price, per set two pieces, $\frac{3}{4}$ inch, 45c. P.P. 1 lb. \$4.50 per doz. P.P. 7 lb.

GARDENER'S GLOVES.

For protecting the hands, handling thorny plants, etc. Heavy goat, per pair, (P.P. 1 lb.) \$1.00

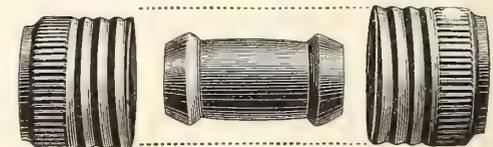
RUBBER GARDENING GLOVES.

With gauntlets, P.P. 1 lb. Men's sizes, \$1.75; Ladies' size, \$1.50.

THE SURE SHUT HOSE MENDER.

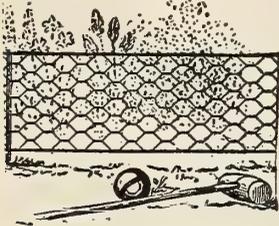
The simplest, strongest and best device on the market for repairing leaky hose. No tools necessary to attach it. Makes an absolute water tight connection. Made entirely of brass and will not rust. Will fit any make of hose. Can be detached and used over again.

Price, for $\frac{3}{4}$ inch hose; 15 cents each, \$1.60 per dozen. P.P. 2 lb.



THE SURE SHUT HOSE MENDER.

WIRE CROQUET OR GARDEN BORDER.

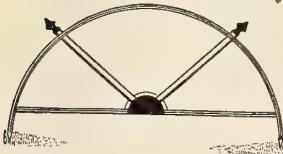


Placed around croquet grounds, prevents balls from rolling beyond limits; placed around flower beds excludes dogs, chickens, etc. Galvanized.

	2 in.	1 1/2 in.
	mesh.	mesh.
12 inches wide....	\$1.25	\$1.60
18 " " " " " "	1.75	2.40
24 " " " " " "	2.25	3.25

Per bale 150 running feet.

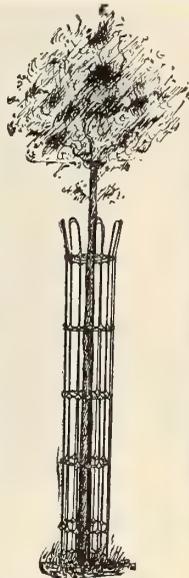
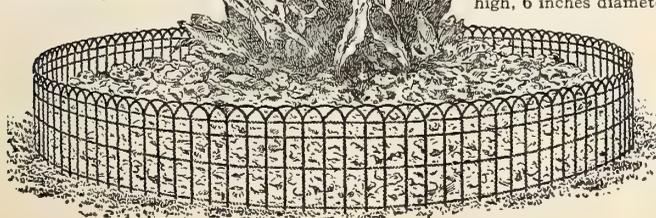
WROUGHT IRON LAWN GUARD.



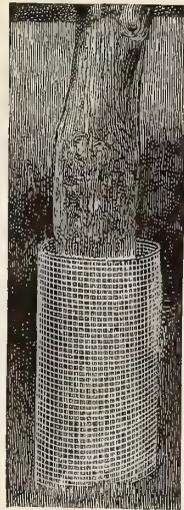
Prevents people walking over corners of lawns. Made of wrought iron, painted green, very durable, 28 in. high and 3 ft. wide. Price, \$2.00 each.

Cyclone Flower Bed and Lawn Guard.

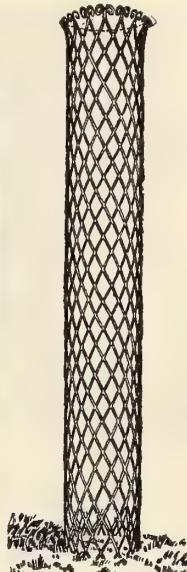
Made of heavy galvanized wire, the pickets extended four inches below the lower cable for holding in the ground, stands 12 or 18 inches in height. Full rolls contain 165 feet, cut lengths will be supplied when desired. Price, per lineal foot: 16 in. in height . . . 10c. 22 in. in height . . . 12c.



Anchor Tree Guards.



Excelsior Wire Mesh Tree Guard.



Expanded Metal

TREE GUARDS.

Anchor Tree Guard, constructed of No. 8 and No. 9 galvanized steel wire, the horizontal wires being locked to the uprights by the patent "Anchor" clamp. They cannot slip. Anyone can put the "Anchor" Guard in place and it will last for years.

Size A. Diameter 8 inches, height 5 feet, 8 inches \$1.45 each; \$16.50.

Size B. 10 inches diameter, 5 feet 8 inches high. \$2.00 each; \$22.00 per doz.

EXPANDED METAL TREE GUARDS.

Made of two sheets of 2-inch Mesh, Expanded Metal, forming a cylinder 10 inches in diameter and 68 inches high. The two parts being bolted securely in place by malleable clamps. With this guard the best protection from vandals is given the tree, with good circulation of light and air. Price, \$2.60.

EXCELSIOR WIRE MESH GUARDS.

Orchardists often sustain heavy loss through the gnawing or girdling of their trees by rabbits, mice, woodchucks and similar rodents. The Wire Mesh Guards will prevent this. They keep out all animals, allow the sun and wind free access to the bark, and harbor no vermin. They are easy to set and may be lifted up to allow the bark to be cleaned. Although light, they are so strong and durable that when a tree outgrows its guard a larger one may be substituted and the old guard used again around a younger tree made in two sizes, 16 inches high, 4 inches diameter, \$1.60 per dozen, 18 inches high, 6 inches diameter, \$2.85 per dozen.

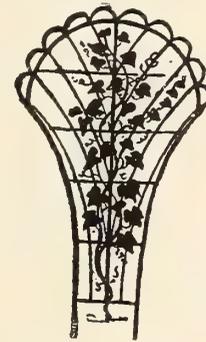
KEEP OFF THE GRASS

"Keep off the Grass" Name plate of iron; enameled blue, white letters; size 20x4 in.; iron rod 26 in. long. Price, \$1.50 ea.; \$15.00 per doz.

"No Trespassing" Iron enameled blue, white letters. Sign 20x4 in., screw holes for attaching; no rod. Price, \$1.25 ea.; \$13.50 per doz.



Wire Vine Trainer.



Wire Fan Trainer.

WIRE VINE TRAINERS.

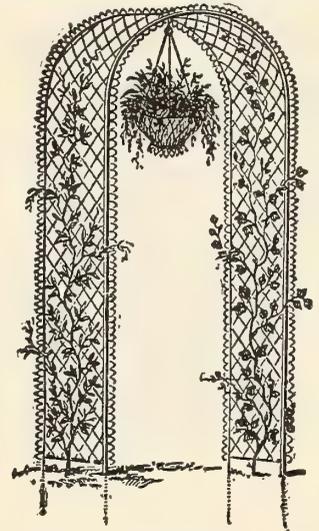
Steel wire, with round iron frame and border. Green and bronze finish. Made any length required.

PRICE PER RUNNING FOOT.

6 inches wide.....	30c.	24 inches wide.....	62c.
12 " " " " " "	40c.	30 " " " " " "	75c.
18 " " " " " "	50c.	36 " " " " " "	85c.

WIRE FAN TRAINERS.

	Steel Wire.	Green and bronze finish.	
No. 9.	12 inches high.....	\$0.30 each, \$3.00 doz.	
" 10.	15 " " " " " "	.35 " " 3.50 "	
" 11.	18 " " " " " "	.40 " " 4.00 "	
" 12.	24 " " " " " "	.45 " " 4.50 "	
" 13.	30 " " " " " "	.60 " " 6.00 "	
" 14.	36 " " " " " "	.80 " " 8.00 "	
" 15.	42 " " " " " "	1.00 " " 10.00 "	
" 16.	48 " " " " " "	1.50 " " 15.00 "	



WIRE ARCHES FOR LAWNS AND GARDENS.

Steel wire, with round iron frame and border. Green and bronze finish. Made any size required. In ordering, state height in center wanted from the ground up and width of passage-way.

PRICE PER RUNNING FOOT.

6 inches wide.....	30c.
12 " " " " " "	40c.
18 " " " " " "	50c.
24 " " " " " "	62c.
30 " " " " " "	75c.
36 " " " " " "	85c.

WIRE HANGING BASKETS.

Green and bronze finish, strong and well made. Just the thing for decorating piazzas of summer hotels and suburban residences. No. 4. 8 in. diam. . . . 30c. each, \$3.00 doz. No. 5. 10 in. diam. . . . 35c. each, \$3.50 doz.

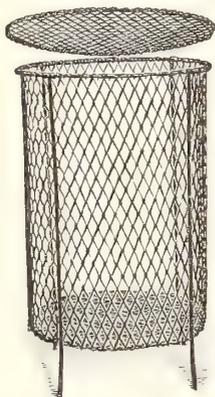
PERFECTION WICKET LAWN GUARD.

A rigid, substantial and ornamental guard for bordering and protecting flower-beds, walks, etc. The wickets, painted green, are 15 inches high and are made of two heavy steel wires twisted together, leaving a loop through which the next wicket is thrust and interlocks; they are easily placed in position by any person to conform to any desired outline, circular, straight, square, etc.; the height is regulated to suit by the distance the wickets are placed in the ground. It requires 12 wickets to 8 running feet.



Price, 23c. each, \$2.25 per doz., \$18.00 per 100.

Expanded Metal Rubbish Burner.



A very convenient basket like arrangement durably made of expanded iron, $\frac{3}{4}$ inch mesh—in which may be collected leaves, rubbish, paper, etc., the lid is then shut and the litter burned in the open air with no danger of burning particles being blown around.

Prices.—No. 1. 14 in. diameter, 16 in. high, inside measurements, \$2.50.

No. 2. 15 in. diameter, 20 in. high, inside measurements, \$2.75.

No. 3. 16 in. diameter, 24 in. high, inside measurements, \$3.00.

ENGLISH TURFING SPADE.

For lifting sod evenly, rapidly, and without, breaking. \$5.00.



TURF CUTTING AXE, \$2.25.

U. S. SOD LIFTER

A handy tool for cutting under and lifting sod; solid steel blade; 18 inch shank; D-handle.

Price, \$1.25.

DANDELION PULLER.

Slide the steel blade into the soil, close to weed. Then push the handle toward the weed and pull up. The root is caught by a patented non-clogging double-tooth prong which projects from inside of blade, and up comes root to the last inch, nothing left to start new growth. As the pull is directly up, the ground and lawn around the weed is undisturbed.

Beside Dandelions it pulls plantain and other weeds.

Price. 50c.



CLOG-PROOF CLAW HOOKS ONTO THE ROOT



Revolving Sod Trimmer or Border Cutter.

A splendid tool for trimming the turf around the edges of walks and flower beds. A revolving knife enables the work to be done with rapidity. Price, \$1.25.

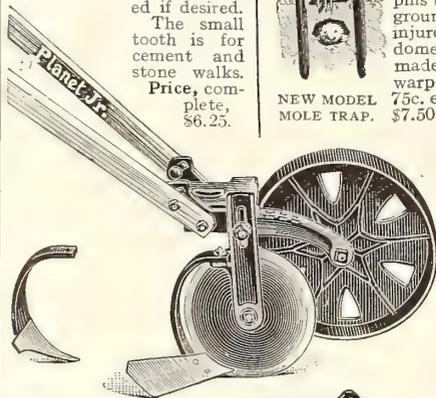
To Operate the Revolving Sod Trimmer.

The forward hand holding the tool, should rest against the forward leg just above the knee and the knee should assist in pushing the trimmer (as is sometimes done in shoveling earth); this prevents the knife from cutting in too deep. (See engraving.)

PLANET JR., Grass Edger.

This little tool trims the turf around the edges of the flower beds, walks, roads etc.; giving a finished appearance to the lawn. The revolving cutter does perfect work either on a curved or straight border, edging accurately at just the correct angle and at the speed of a mile an hour, while the hoe cleans the bottom of walk. The hoe can be removed if desired.

The small tooth is for cement and stone walks. Price, complete, \$6.25.



PLANET JR., GRASS EDGER



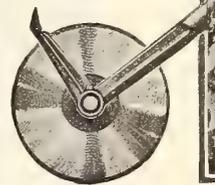
NEW MODEL MOLE TRAP.

THE HENDERSON NEW MODEL MOLE TRAP.

10 1/2 inches high when set. The only trap that can be successfully used in hot beds. Anchor posts are notched, preventing trap springing from the ground when tipped. Self setting. Price, \$1.35 mail weight 4 lb.

THE PERFECTION Mole Trap.

A very efficient Mole Trap, easy to set and cannot "startle" or injure the operator. The points of the pins being constantly in the ground, it cannot catch or injure chickens or other domestic animals. It is made of metal and cannot warp or get out of order. 75c. each, mail-weight 5 lb.; \$7.50 per doz.



REVOLVING SOD TRIMMER.

ENGLISH BILL HOOK.



Very handy for trimming shrubbery, hedges, etc., where a long-handled hook cannot be used. Price, \$1.60. P. P. 4 lb.



BRUSH AXE.

This is an excellent tool for trimming out underbrush, cutting down old hedges, etc. Price, handled, \$1.00.

BASS BROOM WITH SCRAPER HOE

For lawns and walks. It can be used to push, pull, sweep, chip or dig.



12 inch, 4 rows of bristles.....\$0.75
14 " 5 "90
16 " 5 " 1.00

Popular Grass Hooks.

We offer this to meet the demand for a low priced grass hook. It has very good edge holding quality, 25c. ea.

Mehler's Handy Edger.

The handle at one side gives full view of the work the entire width of the edger and the handle being at your side, permits the edger to be drawn with a knife-like action instead of chopping, thus insuring a straight line. Where foot pressure is applied, there is a 3/8 in. surface directly over the center of the tool, thus forcing the full width of the tool. Price, \$1.00.



MEHLER'S HANDY EDGER.

"Half Moon" Grass and Turf-Edging Knife.

For trimming the sod around borders of walks, etc. Price, with handle, 60c. each.



KNUCKLE SAVER GRASS HOOK.

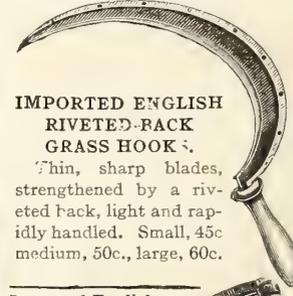
The handle is raised from the blade, making it possible to cut close without bruising or skinning the knuckles.

Price, 50c.



IMPORTED ENGLISH RIVETED-BACK GRASS HOOK.

Thin, sharp blades, strengthened by a riveted back, light and rapidly handled. Small, 45c medium, 50c., large, 60c.



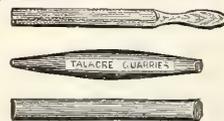
Imported English Riveted-Back Lawn Scythe.

Light and thin broad blades, strengthened by a riveted back. 32 inches, \$1.50; 34 inches, \$1.60; 36 inches, \$1.75; 38 inches \$1.85.

Scythe Snaths or Handles. With patent fastening. \$1.00 each.

SCYTHE STONES and RIFLES.

Genuine English Talacre; round taper ends, 20c. each, \$2.00 doz. "Ohio Red-end," flat stone, 5c. each, 50c. doz.; Rifles, quadruple emery-coated, 15c. ea., \$1.25 doz.



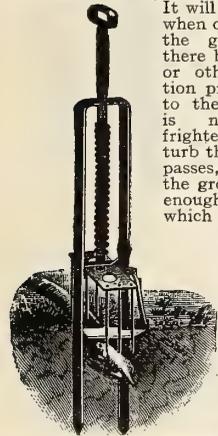


LAWN SHEARS.

For cutting grass under shrubs, fences, etc. Price, with two wheels, 9-inch blades, \$3.00.

The Perfection Mole Trap.

The best and most complete Mole Trap, easy to set and cannot "startle" or injure the operator.



It will catch moles when quite deep in the ground, and there being no pin or other obstruction projecting into the run, there is nothing to frighten or disturb the mole as it passes, and in doing so raises the ground over the "run" just enough to spring the trigger, which must firmly rest on the soil over the "run". The points of the pins being constantly in the ground, it cannot catch or injure chickens or other domestic animals. Being made of metal it cannot warp or get out of order. It can be set close to plants without injuring them, and it can also be set touching a wall fence, etc. 75c. ea.; \$7.50 per doz. P.P. 5 lb. ea.

LAWN WEEDERS.



HENDERSON'S LIFTING WEEDER.

HENDERSON'S LIFTING WEEDER.

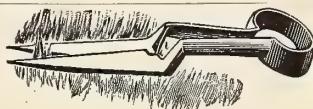
A chisel blade cuts off the weeds; the trigger holds them so they can be pulled out. 60c. each.



CHISEL WEEDER.

Chisel Blade Weed Cutter.

Long handled with foot rest so it can be pressed, cutting off roots or weeds without marring. Price, 60c. each.



"Trowel Shank" Grass Shears.

Solid steel, of finest quality and temper; 7-inch blades. The raised, trowel-like handles keep the knuckles off the ground and allow smoother cutting, 90c. P.P. 2 lb.

HEDGE SHEARS.

For both trimming hedges and cutting grass under fences, bushes, etc.

The "Notch" at the heel of the blade is for cutting branches.

English Hedge Shears.

8-inch blades	\$1.25;	with notch	\$1.50
9- "	" 1.50;	" "	1.75
10- "	" 1.75;	" "	2.00



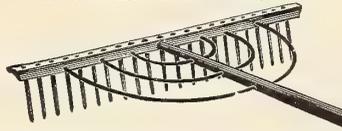
Swedish Hedge Shears.

The very highest quality manufactured.

8-inch blades with notch	\$2.25
9- " " " "	2.50
10- " " " "	2.75

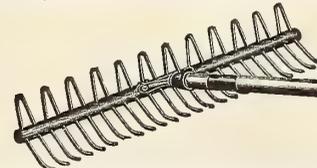
Mail weight 8 and 9 inch, 4 lbs. each; 10-inch 5 lbs.

WOODEN LAWN RAKE.



Best selected three bow, 24 teeth varnished head. 40c. each, \$4.00 per dozen.

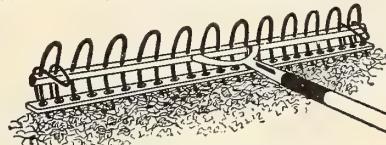
REVERSIBLE STEEL LAWN RAKE.



Heavily tinned steel teeth. The arched teeth for leaves and litter and the opposite side for fine cut grass. Twenty-four teeth closely set in a 21-inch head. Price, 50c. each.

REVERSIBLE STEEL LAWN RAKE WITH TEETH CLEANER.

This is the reversible Steel Lawn Rake described above with an extra iron bar—perforated for the teeth so it slides up and down quickly cleaning the rake when clogged. Price, with handle 85c. each.



"GOLF LAWN RAKE.

This new rake is designed for use on golf courses, tennis courts, and lawns. The blade of saw steel is 16 inches long by 4 1/4 inches wide and is curved to hold fine cut grass, leaves, litter, etc. The V-shaped teeth cut off dandelion heads and other weeds preventing them from going to seed. A strong durable efficient rake. Price, 65c.

GEM DANDELION AND LAWN RAKE.

A fine toothed sheet metal rake with self cleaner. The stripper being operated by a wire trigger attached to the handle, so the contents can be deposited in a basket without handling. The teeth are curved so they ride over the ground, removing all trash, cut grass, worm casts, dandelion flowers, leaves, etc. For worm casts and dandelions on putting greens, this rake is especially recommended.

Price, 16 inch size, \$1.50; 24 inch size \$2.00.



GEM DANDELION RAKE.



"GOLF LAWN" RAKE.



AUTOMATIC SELF-CLEANING LAWN RAKE.

A backward motion of the operator will clean all the teeth at once, thus avoiding cleaning the teeth with the fingers. Made of best hickory. 26-teeth, \$1.00 each; 38 teeth, \$1.25 each; 52-teeth, \$2.25 each.

Iron Bracket for Lawn Lamp.

Short or long Japanned, black.

Attaches to post or wall, very strong and serviceable \$1.00 each.



GLOBE LAWN LAMP.

For either Post or Bracket.

Improved tubular, can be filled lighted, regulated and extinguished without removing globe with the new globe lifter. Number 3 burner, 1 1/2-inch wick. Casts no shadow. Fits either bracket or post. One size only, price, \$5.25. Extra Globes, viz.: clear, glass 50c. each, green or blue, \$3.25, each; ruby, \$4.25 each.



Grass Edging or Border Shears.

For trimming overhanging grass around edges of walks, etc.

Price, 9-inch blades, \$2.50 or with wheel, \$3.00.

Dandelion and Plantain Spud.



A handy tool for cutting dandelions, plantain and other weeds out of the lawn. Also useful when botanizing.

Price, 36c. P. P. 3/4 lb.

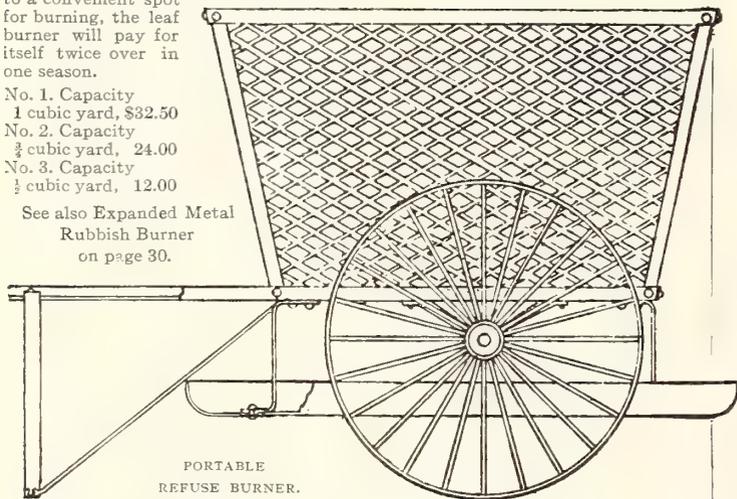
GRASS EDGING OR BORDER SHEARS.

Portable Refuse Burner.

A portable steel furnace for the rapid and convenient destruction of all leaves, refuse, and waste matter. In reality a two-wheeled hand cart (for which purpose it can also be used), made of strong steel angle iron and heavy steel netting, which is fireproof and guaranteed not to burn out. Is fitted with broad-tired wheels, which enables it to be pulled along with the cleaning up squad on lawns or soft ground without injury. A strong steel pan is fitted under the axle which catches all the fire and ashes as they fall through the bottom. This pan can be easily emptied as needed. The unsightly burned spots on lawns and black streaks of ashes on paths and drives is done away with and all danger of fire eliminated. Against the cost of hauling the leaves and rubbish to a convenient spot for burning, the leaf burner will pay for itself twice over in one season.

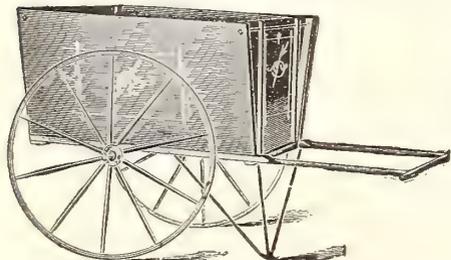
- No. 1. Capacity
1 cubic yard, \$32.50
No. 2. Capacity
 $\frac{3}{4}$ cubic yard, 24.00
No. 3. Capacity
 $\frac{1}{2}$ cubic yard, 12.00

See also Expanded Metal
Rubbish Burner
on page 30.



PORTABLE
REFUSE BURNER.

HENDERSON'S Lawn and Leaf Hand Cart.



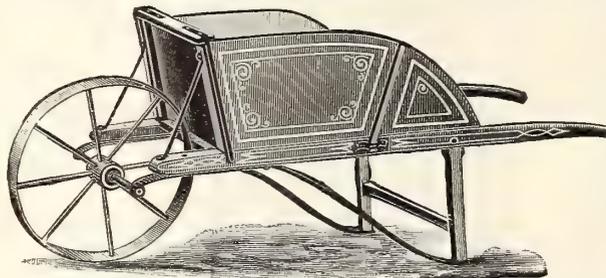
Especially adapted for carrying large quantities of light material such as cut grass, leaves and litter; the box is deep and flaring—measures at the bottom 28 inches wide by 48 inches long. 10 inches wider at the top; it is 24 inches deep; nicely painted green and vermilion, striped and varnished; 30 inch wheels. Price, \$15.00.

Wheelbarrow Leaf Rack.



A handy device for collecting leaves and litter. It fits on any wheelbarrow with removable sides. It is made of galvanized wire bolted to a wooden base; capacity about 10 bushels. Price, (rack only). \$4.50.

The "Henderson" Barrow.



This barrow is light, strong and durable, has a steel wheel and axle and oil-tempered springs, and we do not hesitate to say that it is the best barrow on the market and as well painted, striped and varnished as a buggy. While its carrying capacity is from 300 to 500 pounds, its weight is less than 50 pounds; fully warranted to stand the roughest usage.

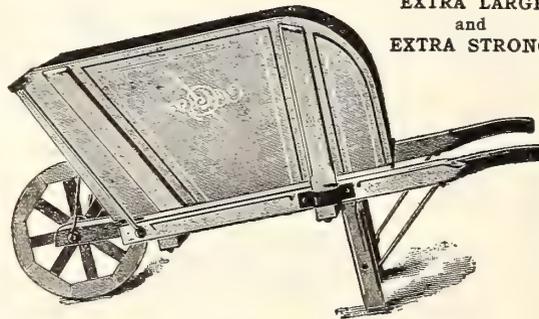
The tire being wide makes it more desirable for lawn and garden use and a stronger wheel for the pavements. The shoe brace, running from the rear of the body to the foot of leg, is a great protection to the leg against breakage, and prevents it from sinking into soft ground. The barrow is made of selected material, and will outlast several of the cheaper, heavy, clumsy barrows. Weight, 50 pounds; body, 26 inches by 22 $\frac{1}{2}$ inches by 12 inches deep; diameter of wheel, 20 inches; width of tire, 1 $\frac{1}{2}$ inches. Price, \$5.00.

Regulation Garden Wheel Barrow.

A superior barrow, handsomely painted and striped; iron leg braces, bolted, not screwed on, run under the legs, forming a shoe to slide on, avoiding racking the barrow; iron bands shrunk on hubs. No pine used in these barrows. Prices, No. 2, boy's size, \$3.00; No. 4, medium size, \$4.00; No. 5, large size, \$4.50.

Lawn and Stable Barrow.

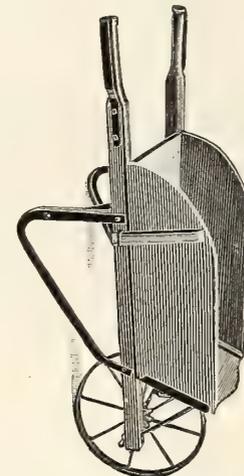
EXTRA LARGE
and
EXTRA STRONG



Our Lawn and Stable Barrow is designed for extra heavy work and has a large capacity, adapting it for manure, lawn litter, etc.; box 25 inches wide by 32 inches long by 18 inches deep. Price, \$6.00.

Greenhouse Wheelbarrow

for Gardeners and Florists



Built to be used in the narrow aisles in green houses. Handle guards to protect the user's knuckles. Angle iron legs and sockets for side boards. Our patented "Never Break Wheel." Dimensions: Handles 1 $\frac{1}{2}$ x2x59 in. Width inside, in front 15 $\frac{1}{2}$ in. With inside, at handles 18 $\frac{1}{2}$ in. Extreme width including handle guards 24 in. 20 in. Wheel. Price, \$4.50.

Bolted Wooden Canal Barrow, with Steel Wheel.

One of the strongest canal barrows made. The front of tray is supported by a wooden cleat.



bolted as well as by the heavy iron braces; handles and legs of hard wood. Tray full size with edges shaved; steel wheel that will not fall to pieces like the common wooden wheel.

Price, with steel wheel, \$2.50. With wooden wheel, \$2.00.

See Henderson's Implement Catalogue for full line of horse and hand-power implements tools etc., sent free on request.



COMFORTABLE SETTEE WITH AWNING.

The "Comfortable" Settee.

This is the most comfortable seat imaginable; made of narrow strips of selected hard wood, varnished; heavy cast-iron legs.

- No. 1, 5 ft. long, \$9.00; with awning.....\$19.00
- " 2, 6 " " 10.00; " " 21.00
- " 4, 7 " " 12.00; " " 24.00

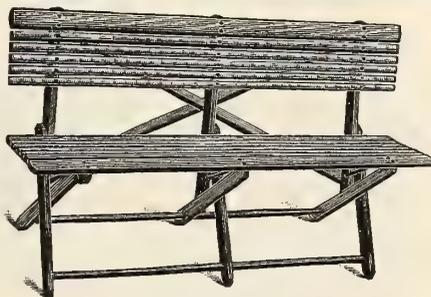
Eagle Steel Lawn Swing.

Will accommodate 4 passengers—is 8 feet 6 inches long; 5 feet 6 inches wide; 7 feet 4 inches high. Full swinging space, 12 feet. Weight, 200 pounds. Width of seat, 30 inches; height of seat from platform, 17 inches. The frames are high carbon steel finished in green and carmine enamel. The slats for seats and platform are made of selected hardwood finished in oil or painted a rich red, and will last for years. The Eagle Four Passenger Lawn Swing may be used as a swing; a reclining chair, or thrown perfectly flat for a couch. It is fitted with a canopy top over the seats, which may be removed by simply unfastening four hooks from the frame. To add greater value to the Eagle Swing we have prepared a neat table that may be placed upon the platform between the seats and used as a lunch table, card table or sewing table. Adjustable head rests can be furnished which may be raised, lowered or removed as desired by simply loosening thumb nuts.

There are side and end curtains furnished at extra price, of same material as the canopy and when these are attached it makes the swing as private as a sleeping car berth, if you wish to use it as a couch at home or in camp. Convenient clasps make the removing of these curtains very easy.

The Eagle Steel Lawn Swing is not an ordinary cheap wood swing, but a high class swing for high class people. If it did not have *unusually* desirable features, there would be no good reason for offering it. Everyone enjoys its motion because the seats do not have that rocking effect—but remain in their fixed position at all times. The Swing is shipped in two packages—one containing the frame, the other the seats, platform and canopy.

- No. 4 Four Passenger Eagle Steel Lawn Swing \$15.00
- Side Shades, 31 inches wide, each..... 2 25
- End Shades, 31 inches wide, each..... 2 00
- Table, complete..... 4 50
- Adjustable Steel Head Rests, per set..... 1 10



FOLDING SETTEE.

Folding Lawn Settee.

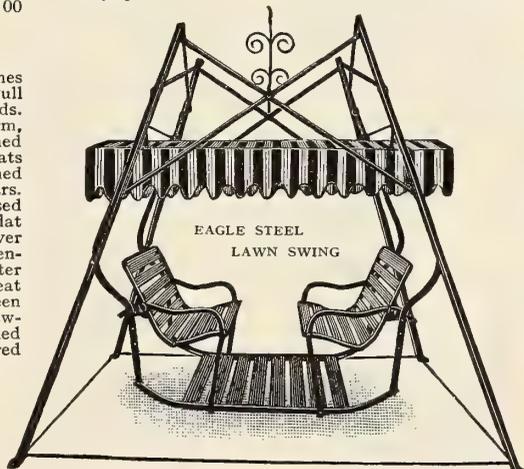
Well made of hard wood with painted standards and natural finished slats. We offer these in three sizes, viz:

- No. 27. 3½ feet long, 6 slats on seat, 4 slats on back Price, \$1.50 ea., \$16.00 doz.
- No. 28. 4 feet long, 6 slats on seat, 4 slats on back, Price, \$1.75 ea., \$20.00 per doz.
- No. 33. 4½ feet long, 7 slats on seat, 6 slats on back Price, \$2.25 ea., \$24.00 doz.

Park Settees.

A very popular settee, with varnished natural wood seat and back, with painted iron work.

- No. 1, 3½ ft. long.....\$3.50
- " 2, 4½ " " 4 00
- " 3, 5½ " " 4 50



EAGLE STEEL LAWN SWING

Rustic Hanging Baskets.

Hexagon shaped bowls covered with laurel roots finished natural color and varnished.

- 10 inch.....\$1.75 each.....\$15.00 per dozen
- 12 " 2.00 " 20.00 " "
- 15 " 2.50 " 25.00 " "

Rustic Garden Vases.

Made of red cedar, unpeeled. Diameter, 16 inches, 3½ ft. high, \$4.75. (See engraving page 34.)



PARK SETTEE AND LAWN UMBRELLA.

Giant Lawn Umbrella.

Eight Feet Across. Alternate Stripes of Bright Colors. Very Showy on a Green Lawn.

These giant framed umbrellas are the strongest and most durable umbrellas in the world. They are not only very useful but very attractive on a lawn. They spread 8 feet. The center pole is thrust into a large hollow iron screw, which is easily turned into the ground; the screw can remain, if desired, and the umbrella can be closed and removed in a moment. It can be quickly set up in any soil with ease. The umbrella has 16 strong steel ribs covered with heavy cloth, in alternate bright colors, usually red, yellow, blue and buff; the edge is finished with an 8-inch curtain. Price, complete, with ground fastenings, \$8.50.

Rustic Cedar Chairs.

Strong durable and ornamental, \$5.00. Cedar Rocker. Similar to the above with rockers on, \$6.00.



RUSTIC CEDAR CHAIR.

Rustic Cedar Settees.

Durably made of Natural Cedar similar to illustrations—4 ft., \$8.00; 5 ft. \$9.00; 6 ft., \$10.00.

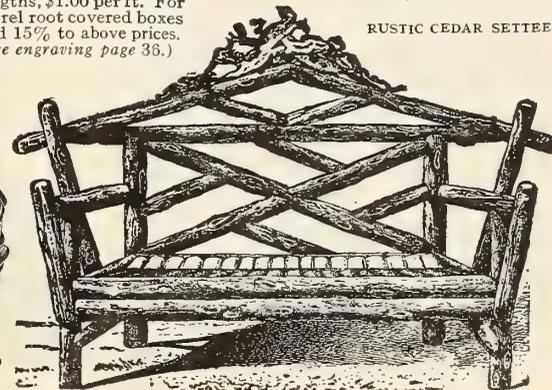
Rustic Veranda Boxes.

These are wooden boxes covered with natural cedar as illustrated, or with laurel roots if preferred at a slightly higher price. They can be made of any desired size, in about one week from receipt of an order.

Price, cedar, 3 ft. long, \$4.00; 4 ft. long, \$4.50; 5 ft. long, \$5.00; additional lengths, \$1.00 per ft. For laurel root covered boxes add 15% to above prices. (See engraving page 36.)



RUSTIC HANGING BASKET.



RUSTIC CEDAR SETTEE.

RUSTIC BIRD HOUSES

There is a growing movement among bird lovers throughout the country to try and attract back again to suburban districts the wild birds that formerly were so numerous. In order to accomplish this, Nesting Houses are a necessity—the absence of natural nesting places, in populated districts, and the prevalence of sparrows being the cause of their gradual disappearance.

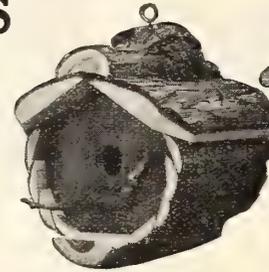
For further details regarding birds and how to attract them, send for our Bird Circular which gives a list of desirable birds, the character of food they eat, nesting requirements, winter feeding, with list of berries plants, shrubs, supplying winter food, etc.



No. 48
Hilbersdorfer Feeding House with glass back, \$10.00.



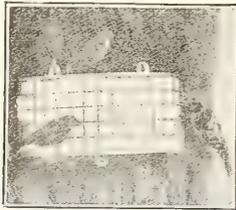
No. 21 A—Blue Bird House \$1.25.



No. 50—Hanging Wren House \$1.00.



No. 60—Robin House or Feeding Shelf, \$1.25.



Bird Feeding Basket for Suet, etc., 85c.



No. 12—Wren House, \$1.25.

No. 63—Wren and Robin, \$1.50.



No. 75—Wren House, \$3.00.



No. 21—Blue Bird or Swallow, \$1.25.



No. 61—Hanging Wren House \$1.25.

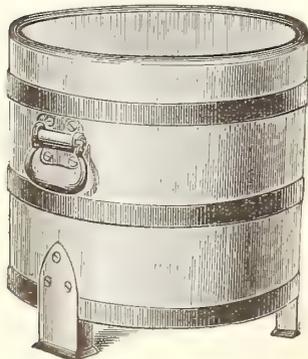


No. 25—Woodpecker or Nuthatch House, \$1.25.

Cedar Tree Tubs.

Heavy iron hoops. Drop handles, serving as hooks for carrying poles. Iron legs. Removable perforated bottoms. Painted green outside and brown inside. Painted red, if desired, at an extra cost of 10 per cent.

No.	Diam.	Stave.	Length of	Price.
0.	27 inches	24 inches		\$6.50
1.	25 "	22 "		5.50
2.	23 "	20 "		5.00
3.	21 "	18 "		4.50
4.	18 "	16 "		4.00
5.	16 "	14 "		3.25
6.	14 "	12 "		2.75
7.	13 "	11 "		2.50
8.	12 "	10 "		2.25



CEDAR TREE TUBS.

Oak Jardinieres.

In these goods, the oak is selected to show the quartered grain, stained dark and finished with lustre surface. The hoops and handles are of brass, highly polished and lacquered. Inside of tubs is painted a rich darkred.

No.	Inside Top Diam.	Inside Depth.	Price.
75	7	4 1/2	\$2.50
77	7	6	2.90
85	8	5	3.00
88	8	7	3.25
96	9 1/2	5	3.50
99	9 1/2	9	3.60
119	11	9	3.85
1111	11	11	4.50
1212	12	12	6.00
1414	14	14	7.70



OAK JARDINERES.

Rustic Stump Tubs.

These are made to order in one week—covered with cedar, like vase shown below.

Price, Cedar, 10 in. diam. \$3.00; 12 in. \$3.50; 15 in. \$4.00; 18 in. \$4.50; 24 in. \$5.00. For laurel-root covered add 15% to above prices.

Cedar Vase.

Durably made and covered with natural cedar similar to illustration. 16 in. diam., 3 ft. high, \$4.50. (See cut).



CEDAR VASE

Rustic Hanging Baskets.

	Each	doz.
10 in.	\$1.75	\$15.00
12 "	2.00	20.00
15 "	2.50	25.00

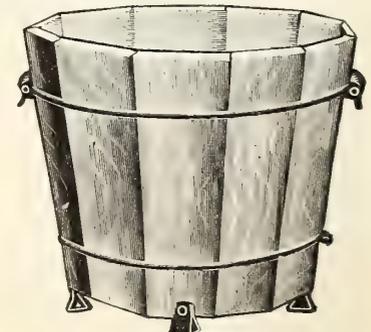


RUSTIC HANGING BASKET.

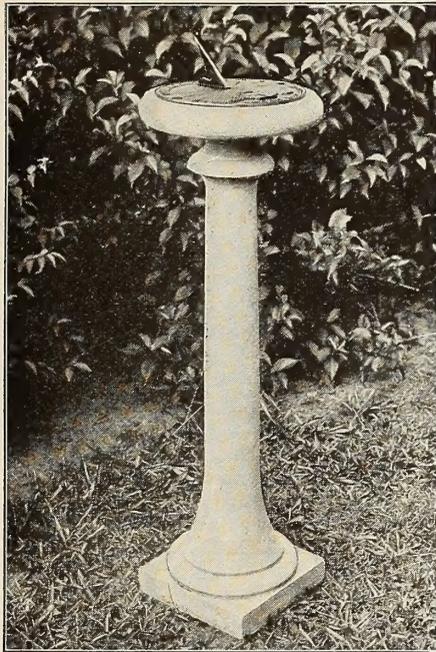
Columbia Plant Tubs.

Durable cypress staves, held by strong steel wire hoops, that can be tightened by draw screws connected with the handles. Natural wood finish.

No.	Diam. eter.	Height.	Plain each.
A.	12 inches	11 inches	\$1.25
B.	15 "	14 "	1.75
C.	18 "	16 "	2.25
D.	21 "	18 "	2.75
E.	24 "	20 "	3.25



COLUMBIA PLANT TUBS.



SHARONWARE SUNDIAL PEDESTAL.

SHARONWARE PEDESTAL FOR SUNDIALS.

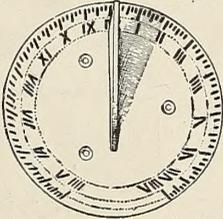
"Sunny Hour" Pedestal. (See engraving.) Height, 37 inches. Price, (without sundial) \$8.00.

SUN DIALS.

The old fashioned garden ornaments are very interesting and unique. The cast iron one we illustrate is the cheapest—being only Japanned black with raised figures in gilt. It is 10 inches in diameter. Price, \$1.50.

BRONZE METAL SUN DIALS

These are rather richer in appearance than the cast iron, and more durable—and the dial will be adjusted to read correctly for latitude. No. 351—round, 9½ in. diam. Motto: "I count none but sunny hours" \$4.75. No. 106—octagonal, 10½ in. diam. Motto: "My face marks the sunny hours" \$6.00.

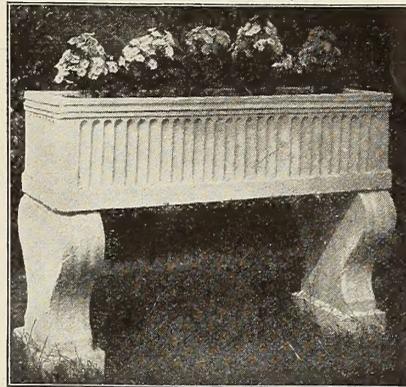


CAST IRON SUN DIAL.

No. 107—round, 11 in. diam. Motto: "Grow old along with me, etc." \$7.50. No. 110—octagonal, 11½ in. diam. Motto: "Light follows darkness." \$10.00.

SHARONWARE VASES AND JARDINIERES.

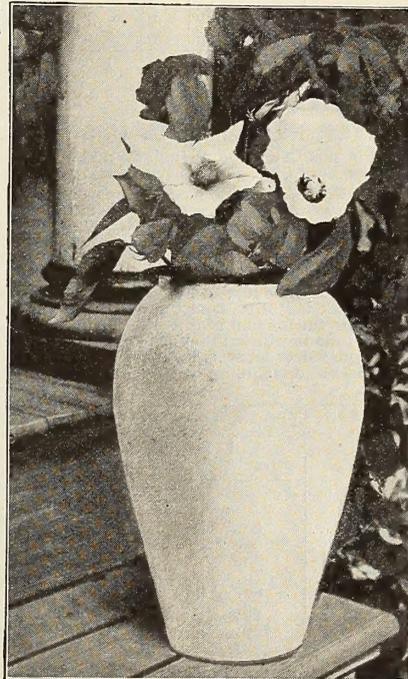
Egyptian Vase for cut flowers (see engraving) height 14½ in.; diam 9 in. Price, \$3.75. Roman Jardinere, height, 13 in.; diam, 14½ in. \$6.00 Grecian Jardinere, " 9 " " 11½ " 3.00 Spanish Jardinere, " 12½ " " 14 " 4.00 Etruscan Jar, " 16 " " 13 " 8.00



SHARONWARE LAWN BOX

SHARONWARE LAWN BOXES.

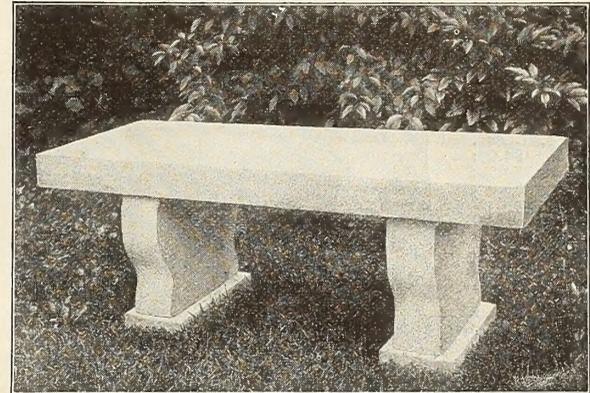
Lawn Box, length 43 inches depth 9½ in. Price, complete \$15.00 (see engraving). Box alone, 28 in. long, \$7.00; 34 in. long, \$9.00; 43 inches long, \$12.00; other styles and sizes of window and veranda Boxes in the Sharonware catalogue sent on application.



SHARONWARE "EGYPTIAN" VASE.

SHARONWARE GARDEN WARE

This differs from ordinary concrete in being semiporous, therefore it absorbs and holds moisture which prevents the soil from drying out quickly. The roots on coming in contact with it do not burn, consequently plants thrive better than in containers of iron or other material which heat up in the hot sun. Sharonware is frost proof and as durable as granite; the coloring is ivory gray and very attractive. "Sharonware Catalogue" mailed free to those interested—on request.

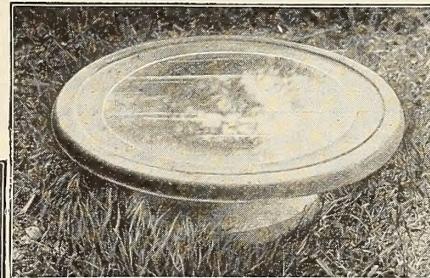


SHARONWARE "CHAT WITH ME" GARDEN SEAT.

SHARONWARE GARDEN SEATS.

"Chat with me" Garden Seat (see engraving) 45 in. long; 17 in. wide; 17 in. high. Price, \$8.00.

"Bide-A-Wee" Garden Seat Similar to above, but 54 in. long; 16 in. wide; 18 in. high, \$15.00.



SHARONWARE "MORNING DIP" BIRD BATH.

SHARONWARE BIRD BATHS.

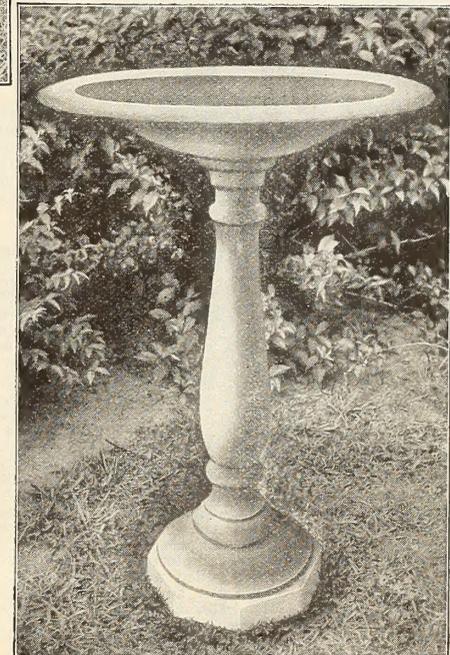
Water is a necessity for birds, especially during hot weather when they require a constant supply—not only for drinking, but for bathing. The Sharonware Bird Baths are scientifically constructed to attract the birds and enable them to drink and bathe safely and comfortably.

"Shady Lawn" Bird Bath (see engraving) height 45 inches; bowl 30 inches. Price, \$15.00.

"Crystal Spring" Bird Bath (not illustrated, but the pedestal is the same as that for the sundial shown on this page). Height 39 in., bowl 17 in. Price, \$8.00.

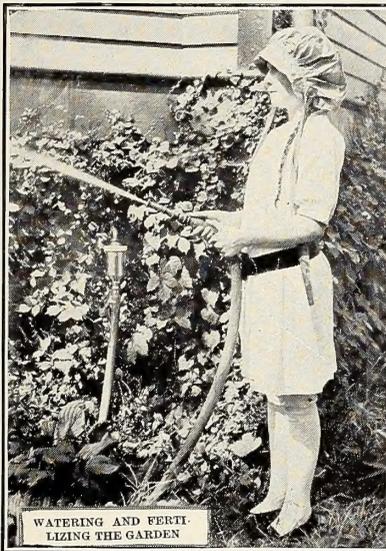
Large size, height 45 in. bowl 30 in. Price, \$12.00.

"Morning Dip" Bird Bath, especially for the convenience of young birds that cannot fly far (see engraving) 17 in. bowl with base, \$3.50; 30 in. bowl with base, \$7.75.



SHARONWARE "SHADY LAWN" BIRD BATH.

EVERYTHING FOR THE LAWN AND GOLF COURSE

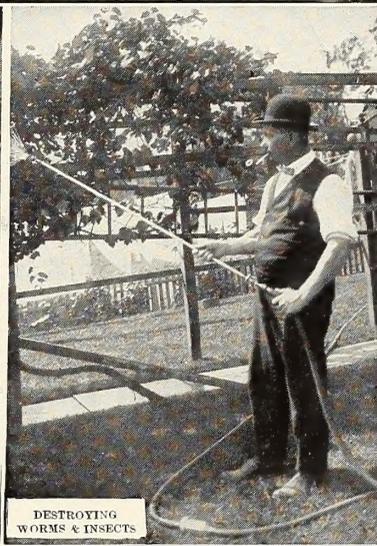


WATERING AND FERTILIZING THE GARDEN



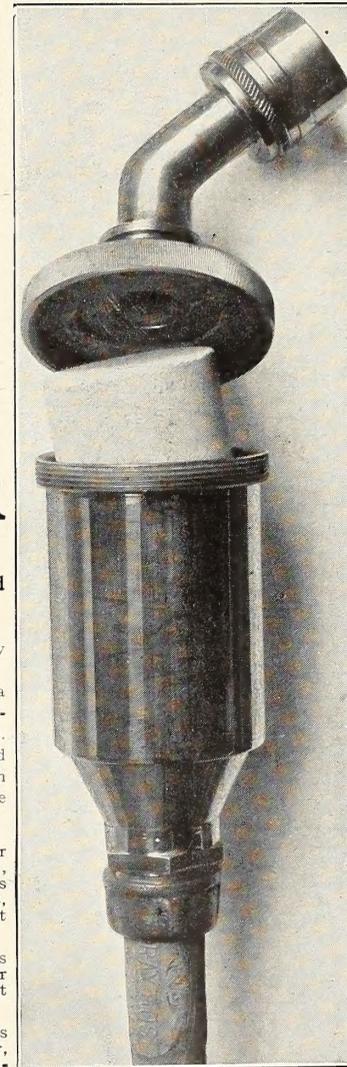
WATERING AND ENRICHING THE LAWN

**A BOON TO THE COMMUTER!
YOU HOLD THE HOSE
THE CARTRIDGES DO THE REST**



DESTROYING WORMS & INSECTS

**WATERS AND FERTILIZES
YOUR LAWN
WITH ONE OPERATION.**



THE KIRKE AUTOMATIC LAWN FEEDER

AND FERTILIZER AND INSECTICIDE DISPENSER.

Merely slip a cartridge for either purpose in the container, attach to the hose and water as usual.

It applies the fertilizer while watering, and feeds the grass or garden with high grade, immediately available, concentrated plant food.

It is a neat device easily attached to any $\frac{1}{4}$ in. garden hose. It can be placed in the middle of a line of hose, or one end can be fastened to a faucet and the other end to the hose as shown in the illustration. It will last a life time, and can be used both for Kirke Fertilizer and Insecticide cartridges.

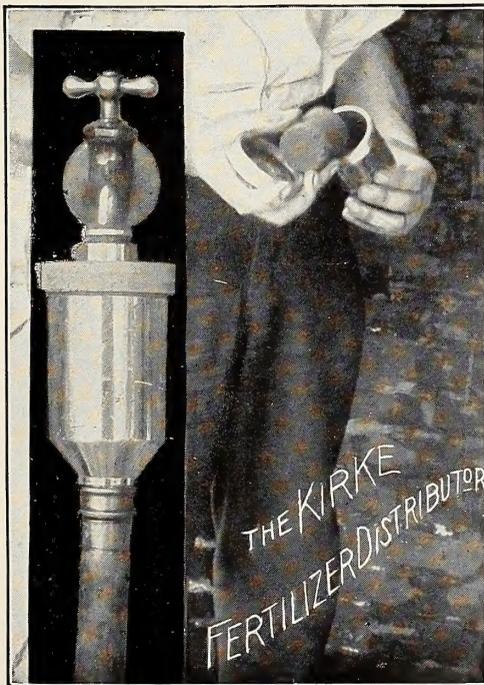
The cartridges of Concentrated Fertilizer for the lawn and garden, and the Bordeaux Tobacco and Arsenate of Lead cartridges for the destruction of insects, dissolve in as much water as will pass through the ordinary garden hose in about five hours. They are clean and odorless and will give perceptible results after one week's use on the lawn or in the garden.

THE KIRKE FERTILIZER CARTRIDGE (Color green, weight about 8 ozs.). Contains the proper proportions of nitrogen, phosphoric acid and potash in high grade, soluble plant food form, and is immediately effective in feeding and invigorating lawns, grass tennis courts, putting greens etc.—whether applied through hose nozzle or lawn sprinkler. For gardens, vegetables, flowers, shrubs, etc., it is equally beneficial. If you want a luxuriant velvet green lawn throughout the hot dry weather, use the Kirke Fertilizer Cartridges and Distributor.

THE KIRKE BORDEAUX CARTRIDGE (Color blue, weight about 10 ozs.). The active ingredients of this best of all fungicides is Copper Sulphate and Lime. An effective remedy and preventative for Mildew, Blight, Rust, Leaf Spot, Bitter Rot and other fungus diseases. Apply in spray form so it will cling to the foliage, etc.—it then also acts as a deterrent for many insects.

THE KIRKE TOBACCO CARTRIDGE (Color brown, weighs about 6 $\frac{1}{2}$ ozs.). The active agent in this is nicotine, destructive to all sucking insects such as Aphids, Plant Lice, Green Fly, Thrip, Leaf Hopper, Mealy Bug, Currant Worms, Canker Worms, etc. It is not poisonous. To be effective the insecticide must touch the insects, therefore apply with a spray nozzle.

THE KIRKE ARSENATE OF LEAD CARTRIDGE (Color white, weight about 10 ozs.). This is a very effective poisonous insecticide for Bugs, Beetles, Caterpillars, Worms and Slugs that chew or eat foliage, etc. Applied in a spray it adheres to the plants without injury. Death ensues the moment the slightest particle reaches the stomach of the insect.

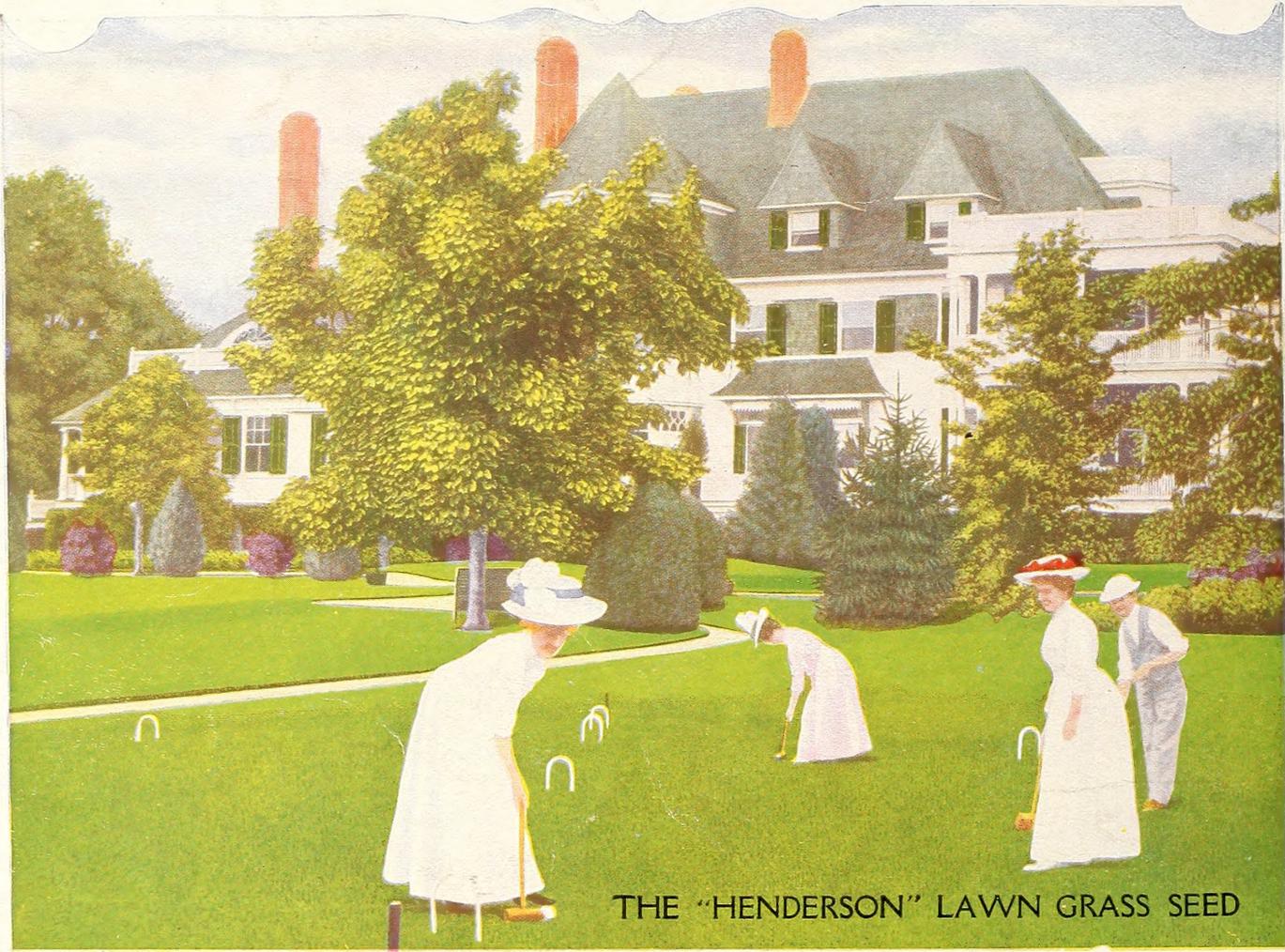


THE KIRKE
FERTILIZER DISTRIBUTOR

PRICES.

	Each.	$\frac{1}{2}$ doz.	Doz.	Mail Wt.
Kirke Cartridge Container.....	\$3.00			1 lb. each
Kirke Fertilizer Cartridges.....	.30	\$1.60	\$3.00	7 lb. doz.
Kirke Tobacco Insecticide Cartridges.....	.40	2.30	4.50	7 $\frac{1}{2}$ lb. doz.
Kirke Arsenate of Lead Insecticide Cartridges.....	.30	1.60	3.00	5 lb. doz.

If by Parcel Post add postage at Zone Rates, see page 36.



THE "HENDERSON" LAWN GRASS SEED

GRASS SEEDS, FERTILIZERS, IMPLEMENTS, TOOLS AND REQUISITES

FOR Lawns, Tennis Courts, Golf Courses, Baseball Grounds, Etc.

PETER HENDERSON & CO., 35 and 37 Cortlandt Street, NEW YORK