

CATALOGUE
OF
PLOWS

MADE ONLY BY

AMES PLOW COMPANY,

MANUFACTURERS OF

Agricultural Implements and Machines,

DEALERS IN

SEEDS, FERTILIZERS,

AND OTHER REQUIREMENTS OF

AGRICULTURISTS AND AGRICULTURAL DISTRICTS.

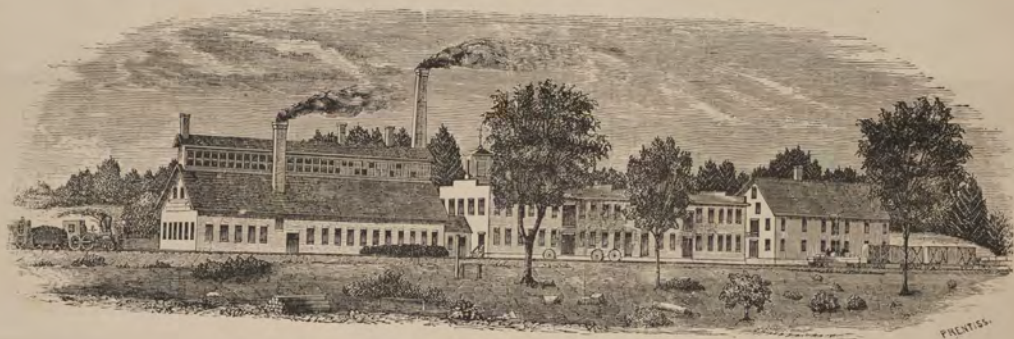
WAREHOUSES:

QUINCY HALL, BOSTON,

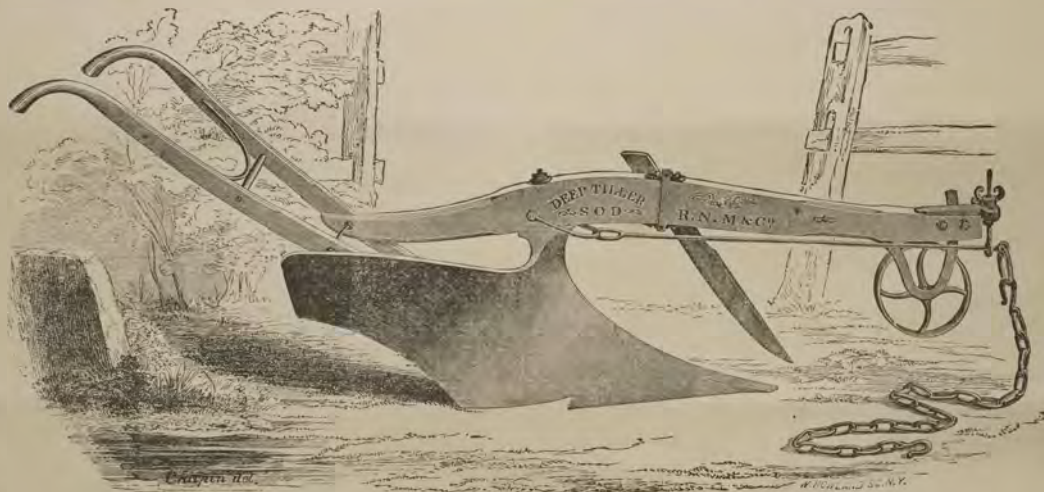
AND

53 BEEKMAN STREET, NEW YORK.

1872.



FACTORY OF THE AMES PLOW COMPANY, AYER, MASS.



KNOX'S IMPROVED EAGLE.

AMES PLOW COMPANY'S

CATALOGUE OF

Deep Tiller, Steel and Iron Plows.

INTRODUCTION.

The Plow takes rank as the pioneer implement of civilization. In the best days of the Roman Republic it was venerated; and hands that one day swayed the rod of empire, on the next were seen holding the Plow.

It was originally designed to substitute, on a larger scale and by means of animal power, what was previously accomplished by hand with a sharpened stick.

Its introduction secured much economy, but tended to throw the soil on both sides only, until the blade was gradually changed or twisted obliquely and the elementary form of the Egyptian or Roman Plow, with one leg longer than the other and having a resemblance to the first letter of the alphabet, was introduced.

The improvements which it has undergone from the time it was first known to the present day are marvellous and most significant, and we have reason to feel much satisfaction in the perfection to which it has been brought.

REMARKS ON PLOWING.

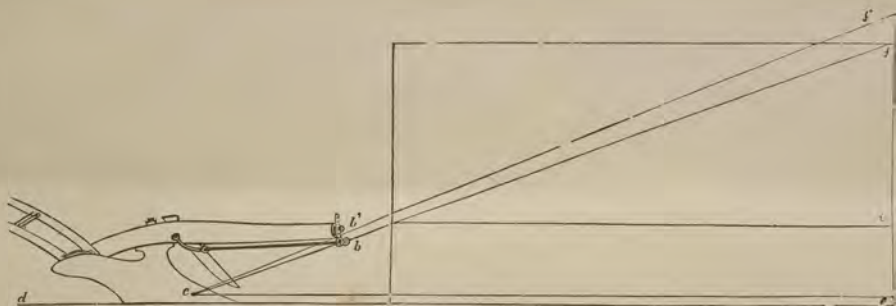
WITH ILLUSTRATED CUT.

From the peculiar structure of the Plow some misconceptions have arisen as to the operation of the draft and the correct manner of using it.

If the power is not rightly applied good work cannot easily be accomplished; as, if the Plow inclines in or out of the ground too much, or takes too wide or narrow a furrow-slice, the plowman must exert force to direct it in addition to that required to overcome the obstacles and inequalities of the soil.

It is evident that the motive force acts in a direct line from the hook or ring at the shoulder of each animal to the centre of resistance. Let *b* represent the forward end of the beam and *c*, the centre of resistance on the Plow, then draw the line from *f* to *c*, which is the direction of the line of draft acting upon *c*, the assumed centre of resistance, and if the Plow is in proper trim it will coincide also with the ring of the clevis; *e c f* being the angle of draft. If the draft chains were applied at *b*, in the direction of *f' b*, the Plow would have a tendency to rise at the point, by the action of that law of forces which obliges the line of draft to coincide with the line which passes through, or to, the centre of resistance; hence the ring *b* would rise to *b'* and elevate the point from its proper direction. To rectify this, the ring must be raised in the clevis by a space equalling that between *b* and *b'* and causing it to agree with the true line of draft, which would again cause the Plow to work evenly on the base of the landside. As a rule, whenever the Plow rises at the heel or point, the ring is too high or low in the clevis and should be raised or lowered. To secure the requisite width of a furrow-slice, the clevis must be moved to the right or left of the beam.

The dimensions of ordinary greensward furrow-slices should be about 6 inches deep by 11 wide, 7 inches deep by 12 wide, or 8 inches deep by 14 wide. When required to be laid at an angle and lapped on each preceding one, their proportions should be about 6 inches deep by 9 or 10 wide, or 7 inches deep by 10 or 11 wide, as the narrower the slice in proportion to the depth, the greater will be the inclination as it is lapped on the preceding one.



KNOX'S PATENT AND IMPROVED EAGLE. IMPROVED SWIVEL--FOR SIDE HILL AND LEVEL LAND, THAT LEAVE NO RIDGES OR DEAD FURROWS. BOSTON STEEL CLIPPER. SESSIONS' AND KNOX'S PATENT HARD STEEL. MAPES' IMPROVED SUB-SOIL.

The Eagle trade mark of Plows was originated many years ago by our predecessors, and the series has since been continually enlarged. From an early period it has possessed a wide celebrity, and its pre-eminence is still maintained over very numerous attempts at imitation by others.

In a new country the early settlers feel compelled to secure present profits without special regard to matters much in the future, and consider the quickest and cheapest manner of plowing and preparing the ground for the reception of the seed to be the best for them. From this cause our early settlers used Plows with very short mould-boards of abrupt curvature carrying shallow and wide furrows, but mainly in consequence of such shallow tillage, the land became very thin, and exhausted of fertility, affording but narrow range for the roots of crops, and too susceptible to the influence of drouth.

As these conditions were gradually understood a demand arose for Plows adapted to deeper and finer work, and many new patterns, by Knox and others, have been introduced into our Eagle,

Boston Clipper and other series as the wants of the country seemed to demand, until we are now enabled to offer an assortment that is probably the best adapted to all kinds of soil that can be found.

Our Plows embrace sizes and forms adapted to every kind of soil and to the peculiarities of a widely varied agriculture. The Improved Deep Tillers are constructed by a new scale of proportions invented by our artist, Mr. Sam'l A. Knox, who obtained Letters Patent for his very original and useful invention. His mode of construction is the result of much study and experiment, and admits of all the variations necessary to produce long or short mould-boards, with straight, concave, or convex lines, as required for different soils or kinds of work.

The mould-boards thus constructed have such a combination of curved lines as presents an equal bearing against the furrow-slice and insures an even polish to the entire face of the mould-board, while the furrow-slice undergoes an equal and effectual twist which lays it down with precision, disintegrating and pulverizing the soil, and leaving it admirably fitted for the reception of atmospheric influences, and free expansion of the roots of vegetation.

They are well made, from the most durable materials, and thoroughly finished, with the various fittings attached which ensure strength and the requisite variations in depth and width of furrows. Those of iron combine an admixture of several kinds of that metal, the result of many experiments, which by giving toughness, hardness, and durability, secures much lightness with strength. The edges of the points and soles of the land-sides and mould-boards are hardened in casting by a process of chilling, which insures at least three times the ordinary wear. Those of steel are of the best cast steel, and have a smooth polish. The wood parts are of white oak, dressed out by unerring guides and patterns, so that all the Plows of a given kind are alike in their parts and uniform in operation.

We keep on hand duplicate parts for each pattern of our Plows, to supply the place of those worn out, and promptly supply them to order. Each mould-board, point, land-side, beam, and other parts of any particular Plow have a specific mark or number inscribed upon them, which entirely distinguishes them from those

of other Plows. Whatever part is ordered will nicely fit the place for which it is intended.

Numerous premiums have been awarded to our Plows in competition with those from various States in the Union and other countries.

It is not our purpose, in these few pages, to give a complete list or description of all our Plows, but we select a few cuts of the leading patterns and present them with a slight description of each.

IMPROVED EAGLE—IRON.

SWIVEL — SIDE HILL AND LEVEL LAND.

Constructed so that the mould-board is easily and instantly changed from one side of the standard and beam to the other, at each turning of the team.

Enables plowing to be commenced on the lower edge of a hill-side and all the furrows to be turned down the slope. Prevents the washing of the soil by heavy rains, to which all side hills are liable when plowed up and down the slope.

Enables plowing to be commenced on the side of a level field and the furrows to be laid all one way.

Is useful in turning furrows from walls and fences and in making heavy roads.

Leaves no dead furrows in the centres, or ridges on the sides, and secures even surfaces for the working of Mowers and other Harvesting Machines.

Enables the team to turn on the unplowed land, and the mould-board to be reversed without any lifting, and with very little effort from the plowman.

Equalizes the work of the team, enabling one ox to travel in the furrow while going one way and the other to do so when returning. Saves much time in coming about, and prevents the treading down or compacting of furrow-slices, as no passing across the ends of the land is required.

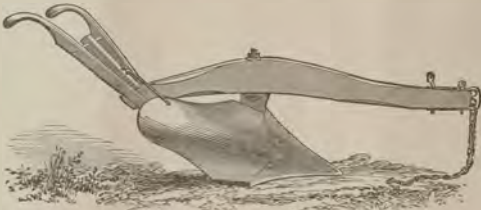
Equalizes the work of the plowman by enabling the exercise on his arms and shoulders to be alternated with every furrow. Enables a field to be plowed, manured, and planted in large or small sections as desired, without any carting over plowed land.

A 1½. Swivel. Greensward, or Old Land. Flat Furrow. Works five to seven inches deep and nine to eleven inches wide. Two cattle.

A 2. Swivel. Greensward, or Old Land. Flat Furrow. Works five to seven inches deep and nine to eleven inches wide. Two or three cattle.

A 3. Swivel. Greensward, or Old Land. Flat Furrow. Works five to seven inches deep and ten to twelve inches wide. Three cattle.

A 4. Swivel. Heavy Road. Works five to seven inches deep and ten to twelve inches wide. Four cattle.



IMPROVED EAGLE. SWIVEL A 4. HEAVY ROAD.

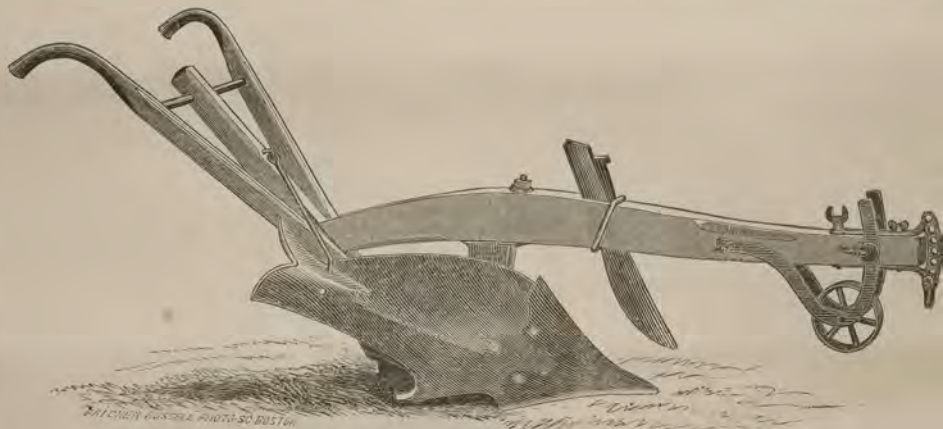
B 1. Swivel. Old Land. Works five to seven inches deep and nine to eleven inches wide. Two cattle.

00. Swivel. Old Land. Works four to six inches deep and eight to ten inches wide. One horse.

0. Swivel. Old Land. Works three to five inches deep and six to eight inches wide. Light horse.

SANBORN'S SWIVEL—SIDE HILL AND LEVEL LAND

With adjustable wing to prevent the furrow-slice from running over the mould-board.



SANBORN'S IMPROVED SWIVEL—SIDE HILL AND LEVEL LAND.

1. Sanborn's Swivel. Greensward. Flat Furrow. Works five to seven inches deep and nine to eleven inches wide. Two cattle.

2. Sanborn's Swivel. Greensward. Flat Furrow. Works five to eight inches deep and ten to twelve inches wide. Three cattle.

KNOX'S IMPROVED EAGLE-IRON.

No. 71½. Greensward. For loose soils which too readily give up their moisture and fertility by evaporation. Flat Furrow. Works five to seven inches deep and eleven to twelve inches wide. Has mould-board with long gentle curvature, which turns the furrow-slice on an easy twist and avoids undue separation of its constituent parts. Two cattle.

72½. Greensward. For stiff and clayey land. Lap Furrow. Rigged with or without skim cutter. Works seven inches deep and ten inches wide. Has a long narrow mould-board with convex surface. Turns the furrow at an inclination of 45 deg., which subjects the greatest attainable surface to atmospheric action. Two cattle.



KNOX'S IMPROVED EAGLE 72½. GREENSWARD.

The cut represents the Plow rigged with a skim cutter, which disposes of the grass-edge of the slice and prevents the growth of grass between the lapped furrows. (For more particular description of Skim Cutter see page 30.)

73½. Greensward. Adapted to Flat, or Lap Furrow by the use of inclined, or straight cutter. Works six to seven inches deep and twelve to thirteen inches wide. Two cattle.



KNOX'S IMPROVED EAGLE 73 $\frac{1}{2}$. GREENSWARD.

75. Greensward. Flat Furrow. Works six to nine inches deep and thirteen to fifteen inches wide. Three or four cattle.

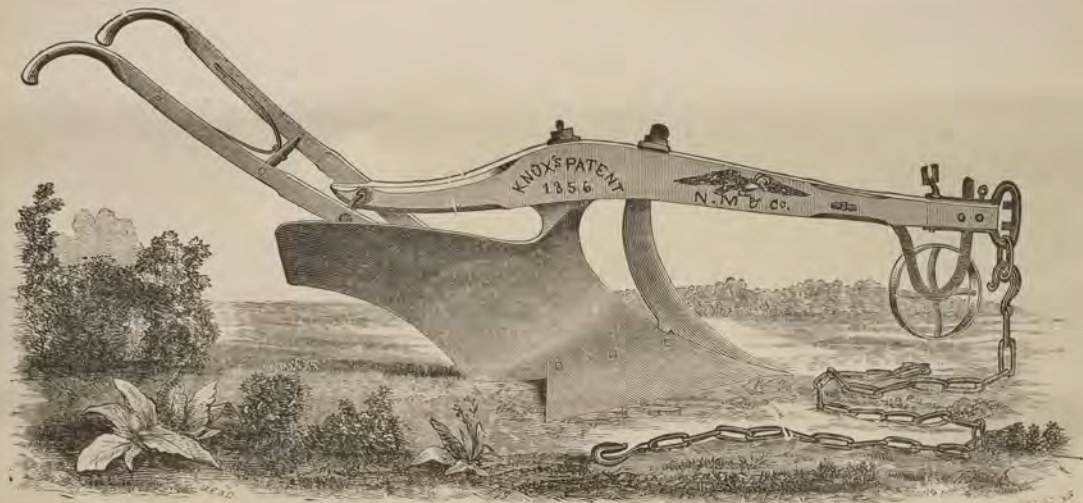
76. Greensward. Flat Furrow. Works nine to ten inches deep and thirteen to fifteen inches wide. Rigged with straight or inclined cutter for smooth land, or with Lock Coulter for rooty or stony land. Four or five cattle.

77. Greensward. Flat Furrow. Works ten to twelve inches deep and sixteen to eighteen inches wide. Is of easy draft by its point having an easy entrance under the furrow-slice and presenting it to the mould-board with little friction. Adapted to the most stubborn soils. Four to six cattle.

78. Greensward. Flat Furrow. Works nine to fourteen inches deep and sixteen to twenty inches wide. Rigged with lock coulter and broad steel point for work among stumps, roots and stones, or for making and repairing highways. Very strong. Six to eight cattle.

TELEGRAPH. GREENSWARD.

An improvement over our other Improved Greensward Plows in the form of mould-board, and in securing the beam by a clasp instead of a bolt, also in the form of standard. Leaves smooth and level furrows.



KNOX'S IMPROVED EAGLE, WITH LOCK COULTER. (For description of Lock Coulter see page 29.)

1. Telegraph. Greensward. Is new, and embraces many improvements. Flat Furrow. Works six inches deep and twelve inches wide. Light two cattle.

2. Telegraph. Greensward. Flat Furrow. Works five to seven inches deep and ten to twelve inches wide. Two cattle.

3. Telegraph. Greensward. Flat Furrow. Works six to eight inches deep and twelve to fourteen inches wide. Three or four cattle.



KNOX'S IMPROVED EAGLE. TELEGRAPH. GREENSWARD.

GREENSWARD AND SUB-SOIL—OR MICHIGAN.

Two ordinary shaped Plows attached to one beam, one much smaller than the other and nearer to the beam. One is placed forward of the other and turns the greensward, while the rear one turns the undersoil and covers the greensward furrow slice, leaving the soil light and almost as fine as if harrowed.

33. Greensward and Sub-soil. Works seven to nine inches deep and ten to twelve inches wide. Three or four cattle.

34. Greensward and Sub-soil. Same size as No. 33 but of a different form. Recommended as the best Greensward and Sub-soil Plow in use.



KNOX'S IMPROVED EAGLE. GREENSWARD AND SUB-SOIL.

OLD LAND OR STUBBLE.

Used with or without wheels and with plain or fin point. (For description of fin point see page 31).

30. Old Land. Works four to six inches deep and eight to ten inches wide. One horse.

31. Old Land. Works six to eight inches deep and nine to eleven inches wide. Two cattle.

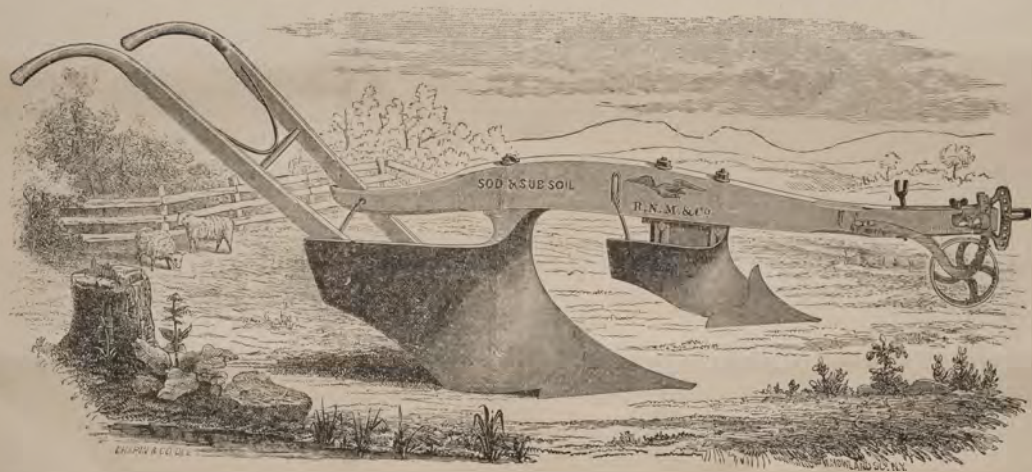
31½. Old Land. Works six to eight inches deep and nine to eleven inches wide. Steel Point. Two cattle.

32. Old Land. Works six to nine inches deep and nine to twelve inches wide. Two cattle.

33. Old Land. Works eight to ten inches deep and eleven to thirteen inches wide. Two or three cattle.



KNOX'S IMPROVED EAGLE 33. OLD LAND.



KNOX'S IMPROVED EAGLE 34. GREENSWARD AND SUB-SOIL.

34. Old Land. Works nine to eleven inches deep and twelve to fourteen inches wide. Two or three cattle.

35. Old Land. Works eight to twelve inches deep and twelve to fifteen inches wide. Three or four cattle.

39. Old Land. Works eight to twelve inches deep and fourteen to eighteen inches wide. Particularly adapted to burying Broom-Corn Stubble. Three or four cattle.

SWIVEL.

83. Swivel. Greensward. Flat Furrow. Works five to seven inches deep and eleven to twelve inches wide. Two or three cattle.

84. Swivel. Greensward. Flat Furrow. Works seven to nine inches deep and twelve to fourteen inches wide. Three or four cattle.

82. Swivel. Old Land. Works six to eight inches deep and twelve to thirteen inches wide. Two cattle.



KNOX'S IMPROVED EAGLE 82. SWIVEL. OLD LAND.

85. Swivel. Old Land. Works eight to ten inches deep and twelve to fourteen inches wide. Three or four cattle.

DOUBLE SWIVEL.

Combines the use of the Swivel with Greensward and Sub-soil plowing.

85. Double Swivel. Level Land. Greensward and Sub-soil. Works ten to twelve inches deep and ten to twelve inches wide. Is easily changed on arriving at the end of each furrow, the plowman leaning forward and raising the hooks or latches, while the team in coming about moves the plows to the opposite side of the beam.



KNOX'S IMPROVED EAGLE 85. DOUBLE SWIVEL—LEVEL LAND.
GREENSWARD AND SUB-SOIL.

MAPES IMPROVED SUB-SOIL.

The real object of plowing is not to turn an immense quantity of soil without disintegration but rather to change the relative position of its particles.

With the ordinary Surface Plow the force of the team is exercised in all directions in lifting and turning the furrow-slice through the arc of a circle, with but slight disturbance of the soil. When plowing deeply we thus lift at every foot of travel, about one hundred pounds of soil through a long continued line, and consume a large amount of power. The removal of each particle of soil but a small fraction of an inch in its relation to surrounding ones, is said to be as thorough cultivation as lifting it a foot high and placing it back again on the surface.

If a trench is filled up, first with the clay that was taken from it and afterwards with the surface soil, much greater crops can be produced than before, not only immediately over the trench but for a considerable distance on each side, while if the trench is filled up, first with the surface soil and afterwards with the clay there will be very different results.

Our Sub-soil Plows follow directly in the furrows made by the Surface Plows, and change the position of the lower soil to any desirable depth by merely raising it a slight distance without turning it.

They disintegrate all the way to the surface, under-cutting both the land side and the furrow-slice without useless friction, lifting them very much as the mole does when travelling beneath the surface, and causing much greater pulverization than many surface plowings would accomplish. That part which moves through the soil, occupies little space and resembles a thin wedge, slightly varying in thickness in the different kinds.

Sub-soiling prevents plants from suffering with drouth in dry seasons, by enabling their roots to extend deeply into the soil, and gives lightness and warmth to the soil in wet seasons, by causing the excess of moisture to filter below the surface. It is specially valuable in lands where the top soil rests upon hard-pan that is a few inches below the surface, also in stiff, clayey or other tenacious soils, as by its use the hard-pan or stiff under soil is opened and pulverized so as to promote the ascent of moisture from below and enable the roots of vegetation to extend downwards. It enables thin seeding to produce as large crops as thick seeding produced before. It also gradually enriches the sub-soil, and makes it equal to the surface.

Those who run a Surface Plow to the depth of nine or ten inches, and a Sub-soil Plow, capable of disintegrating to the depth of nine or ten inches beneath the bottom of the surface-furrow, can almost say that they have discovered another farm beneath that represented on their map.

MAPES' LIFTING SUB-SOIL—WROUGHT-IRON AND STEEL.

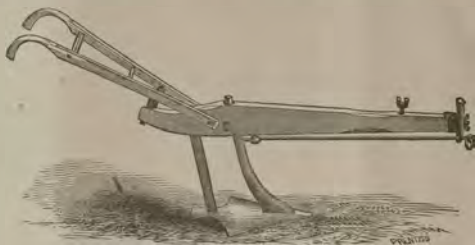
00. Sub-soil. Wing of point on both sides. Works five to nine inches deep. Cut four inches. Light horse.

0. Sub-soil. Wing of point on both sides. Works six to ten inches deep. Cut five inches. One horse.

A. Sub-soil. Wing of point on both sides. Works ten to fourteen inches deep. Cut six inches. Two cattle.

B. Sub-soil. Wing of point on both sides. Works twelve to sixteen inches deep. Cut eight inches. Two or three cattle.

C. Sub-soil. Wing of point on both sides. Works fourteen to eighteen inches deep. Cut nine inches. Four cattle.



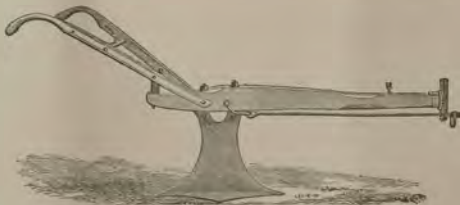
MAPES' LIFTING SUB-SOIL—WROUGHT IRON AND STEEL.

MAPES' REVERSIBLE SUB-SOIL—IRON.

May be reversed when worn, having the standard and point made the same in rear as in front.

A. Sub-soil. Reversible. Works twelve to fourteen inches deep. Three or four cattle.

B. Sub-soil. Reversible. Works twelve to fifteen inches deep. Four cattle.



MAPES' REVERSIBLE SUB-SOIL—IRON.

0. Sub-soil. Wing of point on both sides. Works six to ten inches deep. Cut five inches. One horse.

A. Sub-soil. Wing of point on both sides. Works ten to fourteen inches deep. Cut six inches. Two cattle.

B. Sub-soil. Wing of point on both sides. Works twelve to sixteen inches deep. Cut eight inches. Two or three cattle.

C. Sub-soil. Wing of point on both sides. Works fourteen to eighteen inches deep. Cut nine inches. Four cattle.



MAPES' LIFTING SUB-SOIL—WROUGHT IRON AND STEEL.

MAPES' REVERSIBLE SUB-SOIL — IRON.

May be reversed when worn, having the standard and point made the same in rear as in front.

A. Sub-soil. Reversible. Works twelve to fourteen inches deep. Three or four cattle.

B. Sub-soil. Reversible. Works twelve to fifteen inches deep. Four cattle.



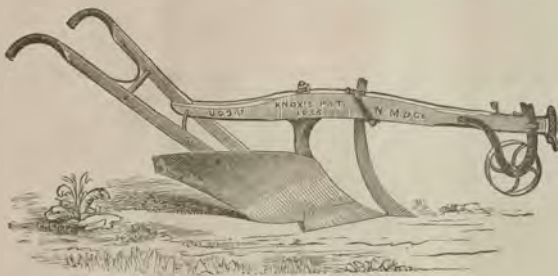
MAPES' REVERSIBLE SUB-SOIL — IRON.

STEEL.

BOSTON CLIPPER.

Steel by its greater hardness and density than Cast-Iron, produces a Plow that is susceptible of a higher polish and slides through the soil more easily. It is also less subject to the rust which the vegetable acids in new and very rich soils produce.

U G $3\frac{1}{2}$. Greensward. Flat, or Lap Furrow. Has mould-board of equal curvature which causes it to polish brightly in any soil. Works four to six inches deep and twelve to fourteen inches wide. Two or three cattle.



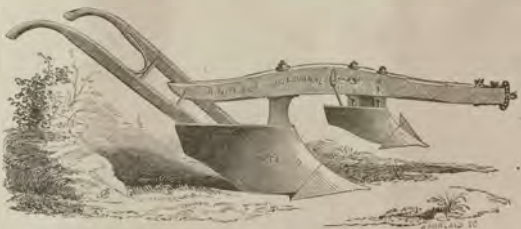
BOSTON STEEL CLIPPER U G $3\frac{1}{2}$. GREENSWARD.

W B 2. Greensward. Lap Furrow. A duplicate of No. 72 $\frac{1}{2}$ — Iron, except in having a higher standard to enable it to keep its course through the large amount of vegetable matter usually encumbering the surface of rich new lands. Works seven inches deep and ten inches wide. Particularly adapted to working stiff, clayey, Greensward in deep narrow furrows. Two cattle.



BOSTON STEEL CLIPPER W B 2. GREENSWARD.

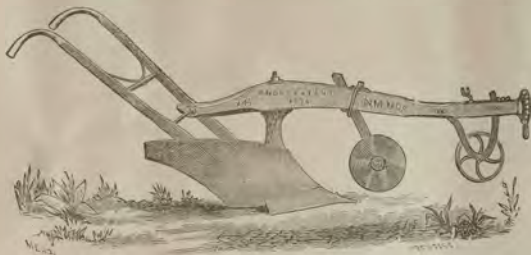
X 4. Greensward and Sub-soil. Works seven to nine inches deep and ten to twelve inches wide. Three or four cattle.



BOSTON STEEL CLIPPER X 4. GREENSWARD, OR OLD LAND.

X 3. Greensward, or Old Land. Works six to eight inches deep and ten to twelve inches wide. Two cattle.

X 4½. Greensward, or Old Land. Works five to eight inches deep and twelve to fourteen inches wide. Two or three cattle.



BOSTON STEEL CLIPPER X $4\frac{1}{2}$. GREENSWARD, OR OLD LAND.

X 00. Old Land. Works four to six inches deep and seven to nine inches wide. One horse.

X 0. Old Land. Works four to six inches deep and eight to ten inches wide. Light horse.

X 1. Old Land. Works four to six inches deep and nine to ten inches wide. One horse.



BOSTON STEEL CLIPPER X 1. OLD LAND.

X $1\frac{1}{2}$. Old Land. Works four to eight inches deep and ten to twelve inches wide. Light two cattle.

X 8. Old Land. Works five to ten inches deep and ten to twelve inches wide. Two cattle.

X 8½. Old Land. Particularly adapted to California and to all adobe or unctuous soils. A duplicate of Old Land Plow No. 32 — Iron. Works five to ten inches deep and twelve to fourteen inches wide. Two cattle.



BOSTON STEEL CLIPPER X 8½. OLD LAND.

SWIVEL — SIDE HILL AND LEVEL LAND.

A 2. Swivel. Greensward or Old Land. A duplicate of No. A 2 — Iron. Flat furrow. Works five to seven inches deep and nine to eleven inches wide. Two or three cattle.

B 1. Swivel. Greensward or Old Land. A duplicate of B 1 — Iron. Flat furrow. Works five to seven inches deep and nine to eleven inches wide. Two cattle.

IMPROVED BOSTON — STEEL — CLIPPER.

Duplicates of Boston Clipper, except in having fuller breasts, longer beams, and higher standards.

1½. Old Land. Cast or Wrought Standard. Works four to eight inches deep and ten to twelve inches wide. Two cattle.

X 8. Old Land. Cast or Wrought Standard. Works five to ten inches deep and ten to twelve inches wide. Two cattle.

X 8½. Old Land. Cast or Wrought Standard. Works five to ten inches deep and twelve to fourteen inches wide. Two cattle.



These Hard Steel Plows received the highest premium—\$20 00—awarded to Plows at the Vermont State Agricultural Fair, September, 1871.

Messrs. Sessions & Knox were awarded the highest prize by the New York State Agricultural Society, October, 1871.

Awarded the highest prize, a Silver Medal, by the New-England Agricultural Society, September. 1871.

combined.

CUTTERS.

The cutter is an important appendage to the Plow for turning greensward. It separates the furrow-slice from the main land by

X 8. Old Land. Cast or Wrought Standard. Works five to ten inches deep and ten to twelve inches wide. Two cattle.

X 8½. Old Land. Cast or Wrought Standard. Works five to ten inches deep and twelve to fourteen inches wide. Two cattle.



IMPROVED BOSTON — STEEL — CLIPPER.— WITH WROUGHT STANDARD.

SESSIONS AND KNOX'S PATENT HARD STEEL.

Furnished in duplicate of Boston Clipper and Improved Boston Clipper, as ordered. Compared with these, those made of ordinary steel, when hard enough to wear well, are invariably brittle and liable to break, and when soft are deficient in durability.

Those of Patent Hard Steel have extra qualities of hardness from each piece of metal being made by a process that converts about one-third on each side into steel, and allows it to be hardened as much as fire and water can make it, while the centre remains flexible. This gives them a toughness that avoids all liability of breakage, and a surface better adapted to slide through the soil than is possessed by other Plows, reducing the amount of power required and securing lightness and other good qualities combined.

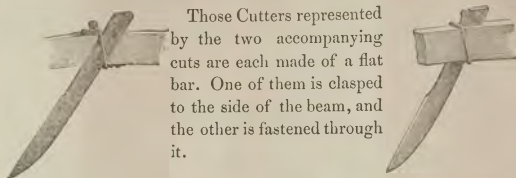
CUTTERS.

The cutter is an important appendage to the Plow for turning greensward. It separates the furrow-slice from the main land by

an easy, smooth cut, securing a true edge and uniform width to the slice, and a saving of draft to the team.

Without a cutter the greensward would be torn off the land by the breast of the Plow and its edges left bristling and ragged, while its inversion by the mould-board would be unreliable.

Cutters may be adjusted more or less raking forward, as desired. For some kinds of work they are best when set considerably raking that their edges may keep free from loose roots and stems which incline to double over and remain upon them. Their adjustment to the beam readily admits of their being raised or lowered, set more or less raking, or being turned to or from the land.



Those Cutters represented by the two accompanying cuts are each made of a flat bar. One of them is clasped to the side of the beam, and the other is fastened through it.

LOCK COULTER—WROUGHT IRON. STEEL EDGED.



by them.

This passes through the plow-beam and locks through the point and mould-board where they join together. It is fastened on top with a key or with a nut and screw. The adjustment is a very strong one adapting the Plow to work among stones, stumps, and roots, as the coultter cannot be turned out of place or broken

STRAIGHT CUTTER.



For lap-furrows. Cuts rectangular furrow-slices and leaves a perpendicular edge on the unplowed land—insures high-crested lap-work.

DRAG OR REVERSED CUTTER.

This is merely a Straight Cutter placed through the beam in a reversed position. In plowing low peat meadows or recently drained swamps there is a tendency for the spongy surface to peel up in large masses before a cutter set in the ordinary way, but the position of the drag cutter is such that it makes a drawing, clean cut, through the sod and prevents its peeling up before the Plow.

INCLINED CUTTER.



This resembles the Straight Cutter, except in being bent sideways. It is for flat furrows and secures the bevelled edges to furrow-slices, so essential to finished

matching-in, as they turn over from the Plow.

SKIM CUTTER.



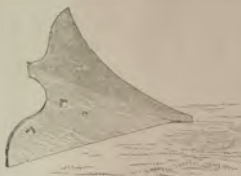
Of particular value in lap plowing. Used a few inches in advance of another cutter. Pares off the grass-edge of furrow-slice and carries it over on the turning slice until it drops in the furrow and is buried. Joins the edges of the lap furrow-slices to an equal thickness and prevents grass from springing up between them. Is attached to the beam by an iron clasp.

CIRCULAR CUTTER.



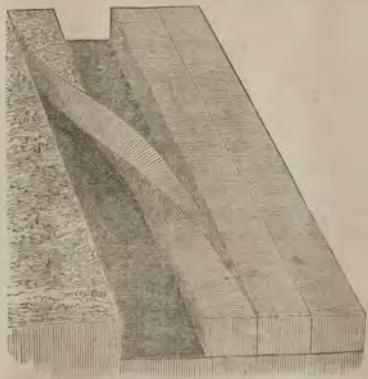
A thin circular plate, revolving on its own axis and having stem or shank clasped to the beam.

FIN POINT.



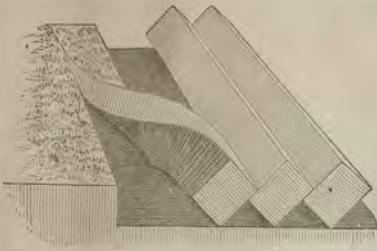
The fin point is of great advantage in plowing greensward lands, containing roots or stones, where the cutter cannot be used without danger of getting bent or out of place. When plowing in stubble, or coarse manure it serves to keep the Plow from clogging at the standard. It also separates the furrow-slice from the unplowed land easier and more speedily than can be done by the breast of the Plow.

GREENSWARD FLAT FURROW-SLICE.



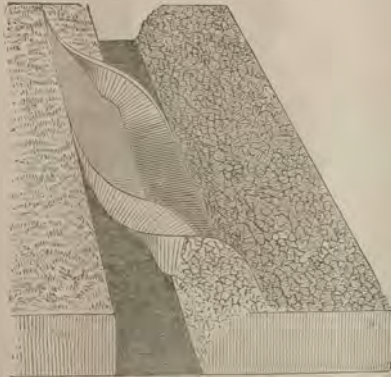
The long easy flexure, and gradual twist of the furrow-slice turned by our Improved, Flat Furrow, Greensward Plows, secures lightness of draft and promotes highly finished plowing in smooth land.

GREENSWARD LAP FURROW SLICE.



Our Plows used for this work are specially adapted for stiff, clayey greensward, and lap the furrow-slices one upon another at an inclination of 45° . The projecting angles of their furrow-slices present the greatest possible surface of soil to atmospheric influences, and the spaces underneath serve as drains to relieve the surface of superfluous moisture.

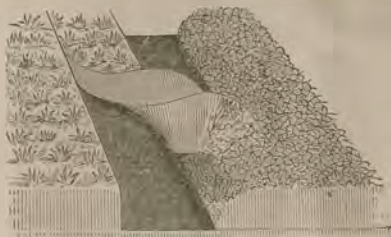
GREENSWARD AND SUB-SOIL FURROW-SLICES.



In this work the skim or forward Plow takes off the greensward two to four inches deep, turning it into the furrow, and the rear

one lifts the under soil six, eight, or ten inches, scattering it, well pulverized, over the greensward slice and filling the furrow.

OLD LAND OR STUBBLE FURROW-SLICE.

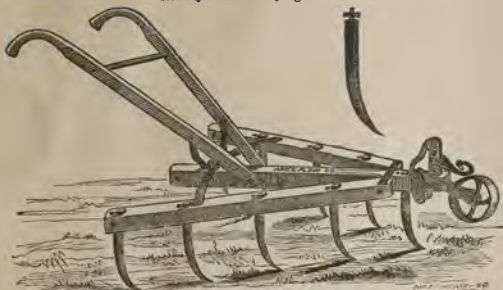


The elevating and turning power of the mould-board used in producing this furrow-slice is apparent in its high, and sudden twist, which enables the soil to be well pulverized.

French's Patent Cultivator.

Specially adapted to Market Gardens, and the Field Culture of Roots, Onions, Strawberries, &c.

Pulverizes deep. Works very close to small and tender plants without throwing earth upon them. Effectually draws out Twitch Grass, Sorrel and other weeds. Lifts and lightens the soil, and leaves it level. Can be used from one to three feet wide, and at various depths. Runs steadily and is of very light draft.



BOSTON HORSE HOE.



For Market Gardens, and the Field Culture of Corn and Roots.

Is a complete pulverizer and mellows the surface of plowed land preparatory to putting in the crops. Mixes manure with the soil and cannot be clogged or choked with weeds, stubble or sods. Works well on hard, compact, rough or stony land, and is very effective in destroying Twitch Grass. Does the work of a Cross-Plow or Harrow and prepares land for grass without turning up the old sward. Has a strong, light iron frame and improved plows or moulds. Its rear plows are reversible, so as to throw the earth to or from the plants, and can be contracted to fifteen inches in width and expanded to thirty-six inches. It is gauged by a wheel to work at any depth from three to seven inches.

Price, \$12.00.

A pair of larger rear Plows, for hilling, will be sent extra, when ordered, at \$1.50 per pair.

ALSO,

KNOX'S PATENT HORSE HOE.

Price, \$12.00.

MADE ONLY BY

AMES PLOW COMPANY.

HARRINGTON'S PATENT

Single or Combined Seed Sower and Hand Cultivator.

THE BEST IN THE MARKET, AND THE ONLY COMBINED ONES MADE.

The price of a Combined Sower and Cultivator does not exceed that of an ordinary Sower.



THE SOWER

Sows all kind of Seeds. Is the best in the market for Carrot, Onion, Sorghum, and Turnip Seed, also for Peas and Beans. Is the only one that will Sow Beets and Parsnips with regularity. Makes the drills, and evenly drops and covers the seed. Distributes Guano and other Fertilizers. Has no side-roads, or brushes to get out of order.



THE CULTIVATOR

Destroys weeds between the rows, and mellowes the soil. Can be easily expanded or contracted. Dispenses with wheel and hand hoes. The removal of the Hopper and its attachments from the frame, and substitution of Cultivator attachment, enables each Sower to be quickly changed to a Cultivator. All the parts are very light and durable, also easy to operate and effective.

Prices :

Single Seed Sower,	- - - - -	\$12.00.
Combined Sower and Cultivator,	- - - - -	15.00.
Single Cultivator,	- - - - -	8.00.

Full Directions for working are attached to each.

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AMES PLOW COMPANY.

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THE PERRY
GOLD MEDAL MOWER.

TRIUMPHANT EVERYWHERE.



Was awarded the Highest Prize and only First GOLD MEDAL at GREAT FIELD TRIAL at AMHERST, Massachusetts, in 1869.

MADE ONLY BY AMES PLOW COMPANY.

The Best Machine for Turning Hay.



THE AMERICAN HAY TEDDER.

Was awarded the N. E. Agricultural Society's only First Prize at the Great Field Trial at Amherst, Mass., in 1869.

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HORSE HAY RAKE.



BURT'S SELF-ADJUSTING

Unequalled for Simplicity, Durability and ease of Operation.

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