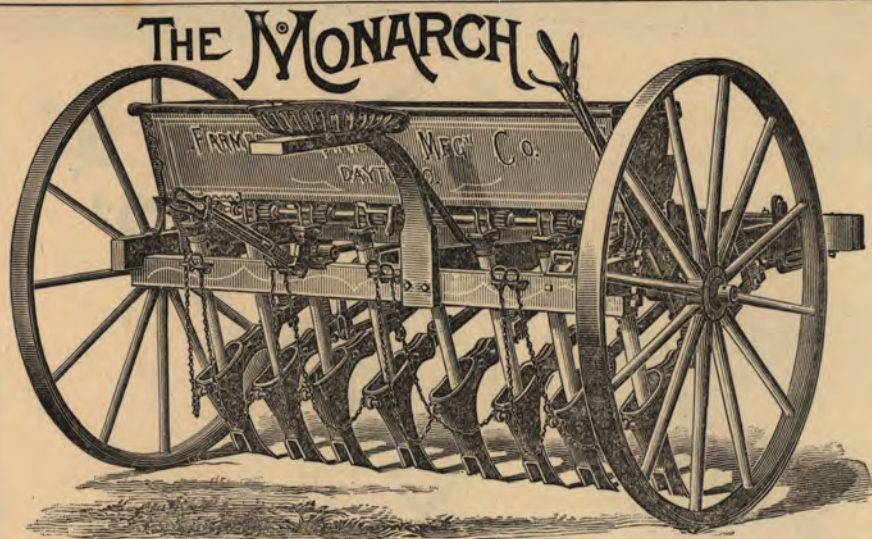


8 & 5 HOE
GRAIN DRILLS

SOLD BY

The Farmers Friend Manufacturing Co., Dayton, Ohio.



The Monarch as Now Made.

The originality and perfection of its new features, place it beyond competition where quality is considered, and the completeness of the line make it unrivaled.

No other Drill has any thing like its special features, and no other offers more variety in attachments and styles.

The Horses Raise the Hoes.

At the right hand of the driver is a lever with a latch on both sides of it. Throw the front one forward, and in an instant the hoes are up; touch the back one, and they drop.

They can be raised and lowered in less than a foot, there is no strain on the team or Drill, and

as the team is not stopped to raise and lower the hoes one-fourth more can be drilled in a day.

It is malleable iron and can not break; is light and simple, and there is nothing like it on any other Drill.

It can be used by hand whenever desired.

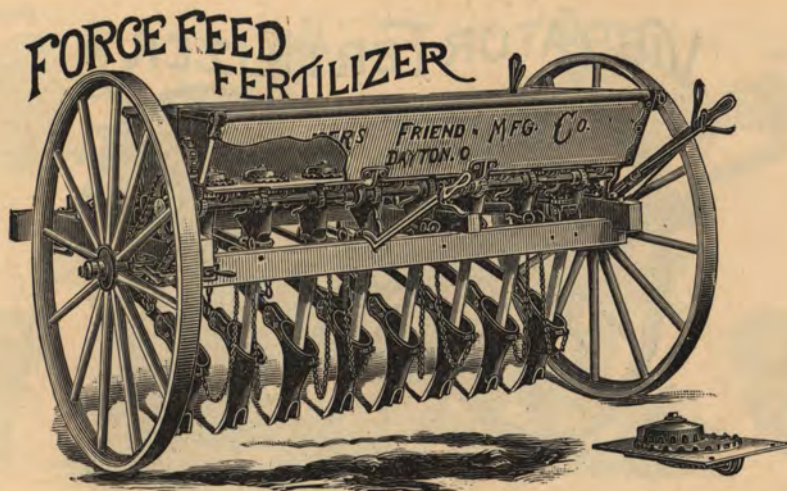
The Splendid Clutch Gear

Is another fine thing on the *Monarch*.

The Automatic Clutch starts and stops the feed without throwing a wheel in and out of gear; it sows soon as the Drill starts, there are no skips in sowing, the gears are small, all fastened on a shield inside the frame secure from dirt.

The driving gear is made a part of the hub, so it can not wear out.

The Farmers Friend Manufacturing Co., Dayton, Ohio.



The Motion of the Drill Shifts the Hoes.

Touch the latch on the lever at the left of the driver, and the hoes shift themselves, and put the lever in position where they can be easily shifted back without stopping the horses. No trouble to sow foul ground fast and well, as this shifter keeps the hoes clean.

Adjustable Force Feed.

The Feeders are in a movable shaft, and more or less is sowed by sliding this so more or less of the feeder is in the feed cup.

A pointer on a brass indicator shows the quantity. It sows any desirable amount of any kind of grain; can be changed while in motion; does not choke up, or cut grain, and is so simple a child can handle it.

The feed cup is parted in the center, and if a nail, stone, or something else gets in with the seed and

breaks the cup, *only half of it need be purchased, and it can be put on by simply removing two screws without disarranging any part of the feed.*

An Easy Spring Seat.

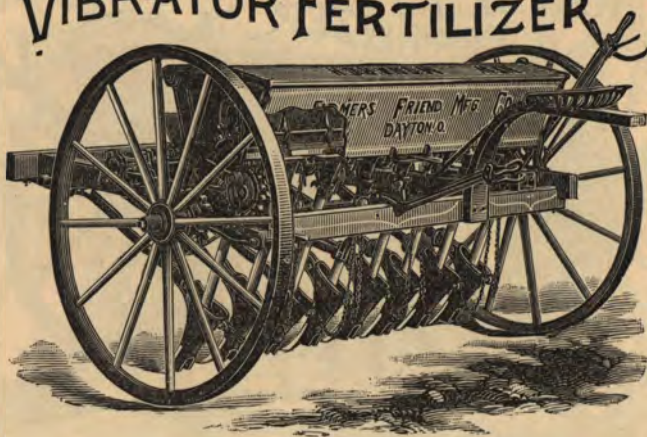
It is fastened on the rear rail, takes all weight off the horses' necks, balances the machine, and is easier on the team than a walking Drill.

The driver sets up where he has full command of the horses and Drill, and when he walks an adjustable hitch takes all weight off the horses' necks.

The Monarch Force Feed Fertilizer.

For several years the manufacturers of Drills have been trying to build a Force Feed Fertilizer that would work well and not get out of order.

VIBRATOR FERTILIZER



There is nothing better than the feed on the Monarch Force Feed Fertilizer. It is really the only Force Feed, deriving that distinction from the notched plate that carries the fertilizer out, and the cleaner wheel which revolves on it, and forces the fertilizer off in the tube.

 The principle of a notched feeder to carry out the fertilizer, and a revolving cleaner wheel to scrape it off and clean the feeder, has always been recognized as a perfect thing. Now since this feeder is made a part of the hopper bottom, and on a level with it, and the quantity regulated by the cleaner wheel, it does what no other Drill will do, viz: *Pulverize lumps, sow coarse stuff as well as fine, and puts on any desired quantity of any fertilizer.* 

The quantity is regulated by a lever that throws the cleaner wheel away from or toward the opening. It is accurate, and is the only Fertilizer Drill in which a part of the distributor can be moved, or shaken, to keep the Drill from clogging up.

It is the only Force Feed Fertilizer in which the indicator can be set, and the feed opened and closed without resetting it. Saves fertilizers in turning, and loses no time in setting the quantity.

The feed can be changed, or shut off, or the fertilizer part stopped entirely without stopping the flow of grain.

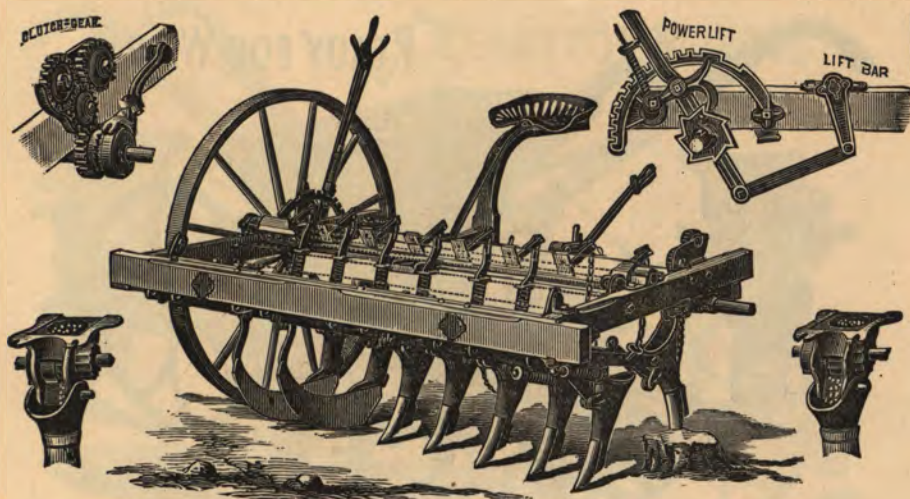
The Fertilizer box is detachable, and can be removed when it is desired to sow only grain.

It is balanced so there is no weight on the horses' necks, and a seat is never put on it.

The Automatic Clutch Gear

is a great thing. Only two wheels and a chain, and a clutch on the hub. Can not wear or break, is simple, acts quick, and does perfect work. It is the only kind of a gear used on "Farmers Friend" machines.

The Farmers Friend Manufacturing Co., Dayton, Ohio.



The Vibrator Fertilizer.

This device has been used for years, and has been sold on more Drills than any one kind of a fertilizer built.

Its chief claim is *simplicity*, there being no feeders, or gears, but simply a galvanized iron box with openings through which a vibrating shaft forces the fertilizer; and *light weight*, there being not a pound of cast iron about it.

It is one-fourth lighter than others, is handled about as easily as a plain Drill, and is the only Fertilizer Drill made with a seat.

The Clutch Gear is used on it; it is regulated to any quantity, the feed can be shut off, the Vibrator stopped without stopping the grain part, and every thing about it is first-class. It is a Drill that a buyer never complains about.

Other Attachments.

A cut is given to show how *RUNNERS*, *SPRING HOES*, or *PIN HOES*, are all used on the same frame. Also how the *SPRING PRESSURE* is put on.

Runners and Hoes are Interchangeable,

And it is the only Drill having this advantage; either can be bought at first, and the other put on at pleasure.

Runners are much liked in many sections, as they run steady, cover well, and do not clog up.

The Spring Hoe

Should be considered indispensable by farmers having rough, rocky, or stumpy ground. One can drive right along over obstructions, the hoes unlocking on them as shown in the cut, and brought back to their proper position by a coiled steel spring placed lengthwise under the drag bar.

The Farmers Friend Manufacturing Co., Dayton, Ohio.

"READY FOR WORK."



The Acreage of Wheat Sown in Corn Ground

Is very great, and it is often impossible to get the corn off in time, when the One-Horse Drill must be used; and frequently it is preferred to let the corn stand and drill between the rows with this machine. Then again, as all the good results from drilling wheat are obtained with this machine as well as a Two-Horse Drill, it finds ready sale among farmers who sow only a small number of acres

Our One-Horse Drills

Have been sold largely and are deservedly very popular. The Five Hoe covers all the ground between the rows, and the Three Hoe is driven through twice, putting the same amount of grain in six drills. The work is done more easily with the latter, and in less time with the former. Both do it equally well.

The Drills are built on the plan that makes them the nicest to handle, and that do the best work.

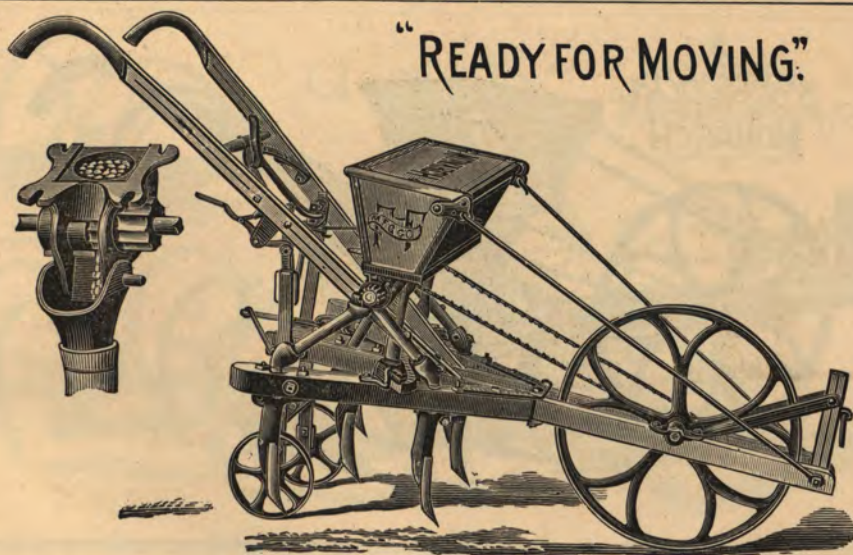
The box is over the center of the Drill, dividing the weight between the wheel and hoes, making it run well, easy to operate, and each row drilled at the same depth.

The gauge wheels make the Drill run lighter and more steadily, can be set to sow at any depth, and can be swung under the Drill instantly to transport it. The points of the hoes set lower than the wheels so it runs level when drilling.

THE FEED (see cuts of large and small quantity at the side of the machines) is regulated by moving the handle at the right in the cut, which increases or diminishes it. No wheels changed or moved, and no time lost in regulating it. The quantity is indicated on a brass plate, and the indicator moves only with the feed, so it is exact. The driver can see it work all the time.

THE GEAR is held in by our automatic clutch. It permits the Drill to be drawn back while being

The Farmers Friend Manufacturing Co., Dayton, Ohio.



used, without moving the feeders, and on the first forward motion, the wheat begins to fall. No seed is wasted, and no skips in sowing with these Drills. Thrown in and out of gear without stopping.

They are driven by a malleable iron chain, which is positive, never chokes with trash, and is the simple and popular way to transmit power.

The Five Hoe Drill

Is changed to any width without stopping, the tubes adjust themselves to any width, and a curved slide prevents wobbling of the side frames, and uneven depth.

The Drills have been made lighter and by using malleable iron and other strong material, are durable, as well as light enough to be handled easily both by the user and the horse.

 It has longer hoes than others, and will work in foul ground without annoyance or delay in cleaning out trash. The hoes are of an improved shape, have steel points, and are fastened with a break pin.

The Three Hoe Drill

Has the wheel in front, and is lifted, moved around, and handled as easy as a wheelbarrow.

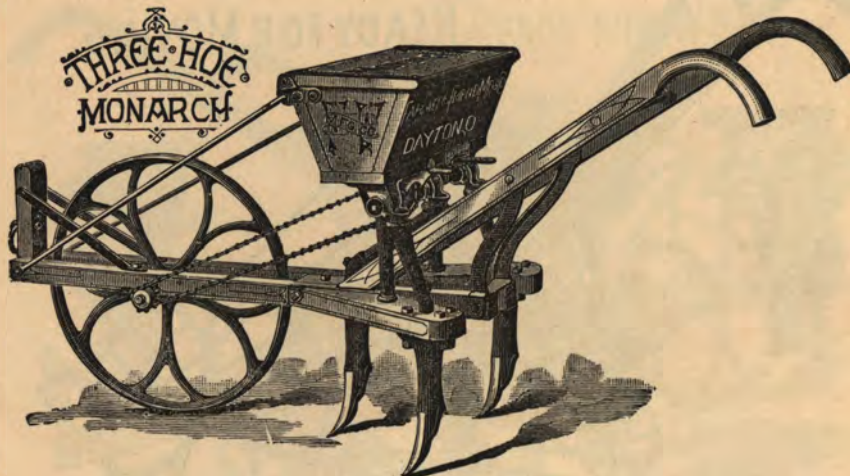
The horse is hitched to a side clevis and the right handle is bent in to avoid touching the corn stalks. Neither of the handles run through the box.

The automatic clutch gear, chain, feed, braces, &c., are the same as on the Five Hoe.

We meet all reasonable competition, but will not sacrifice quality to compete with cheap Drills, and warn purchasers to make careful comparisons rather than be influenced by prices.

THE FARMERS FRIEND MFG. CO., Dayton, Ohio.

The Farmers Friend Manufacturing Co., Dayton, Ohio.



The Spring Pressure

Consists of spiral springs set on the drag bar, on which a pressure can be placed to force the hoes in hard ground.

The lifting lever applies the pressure, and the construction is such that when being used, the hoes follow uneven surfaces nearly as well as when no pressure is applied.

Minor but Important Features.

Grass Seed is sown with a Force Feed, same as the grain feed, reduced in size, and either in front or behind the hoes.

The **Surveyor** has no springs, measures only while Drill is sowing, and never fails to do so accurately.

The **Hoes** deposit the seed in fine moist soil at the bottom of the furrow, and make furrows which protect the

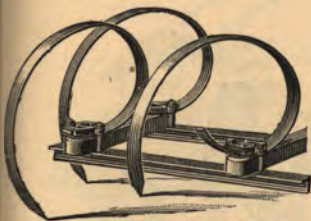
seed and keep it covered by the washing of soil from the ridges.

The **Drag Bars** are of one heavy piece of iron which keep the hoes in line, and **Rear Chains** are within reach of the driver to raise and clean separate hoes.

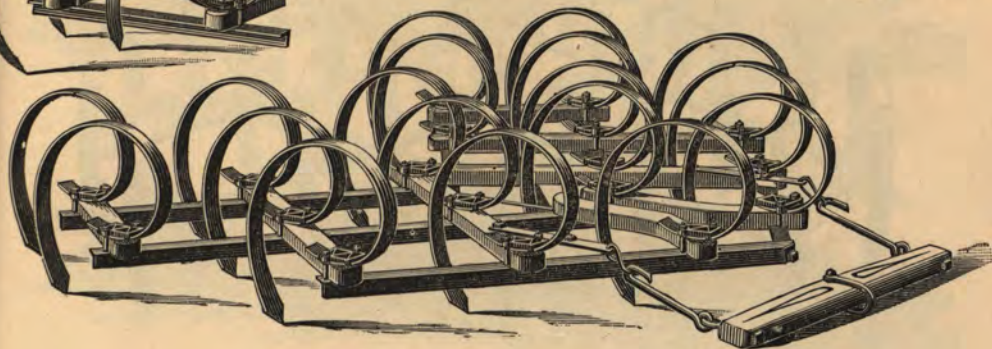
The Drill is heavier than some others, but is constructed so the draft is as light as the flimsy Drills, while it is much more durable and desirable.

Please remember what the buyer of a Monarch Drill gets, that can not be got on other Drills; the HORSE LIFT, which makes easy work, and sows one-fourth more per day; the AUTOMATIC SHIFTER, with which the hoes are cleaned as the Drill moves; the CLUTCH GEAR, that saves seed, saves time, saves backing and prevents skips, and a SPRING SEAT, easier on the team than a walking Drill.

The Farmers Friend Manufacturing Co., Dayton, Ohio.



U. T. K. SPRING TOOTH HARROW.



More Work in the Ground

**Can not be Easier and Better Done than with a
U. T. K. Spring Tooth Harrow.**

The action of a Spring Tooth Harrow turns the dirt from the bottom, pulverizes and shakes it up, leaving it lighter and more open than any other kind of a Harrow.

The Teeth vibrate, and shake the weeds and grass out of the soil, leaving them on the surface where they die, instead of growing again, as when partially covered.

The draft is lighter than any other Harrow because of the springing of the Teeth, and they completely turn and pulverize the soil to the depth of several inches.

The action of the Teeth prevents them from clogging, and altogether it is the best implement for tilling the soil ever invented. Where invented and first used, the Spring Tooth Harrow now has the largest sale.

The U. T. K.

Note the special features of this Harrow as compared with others.

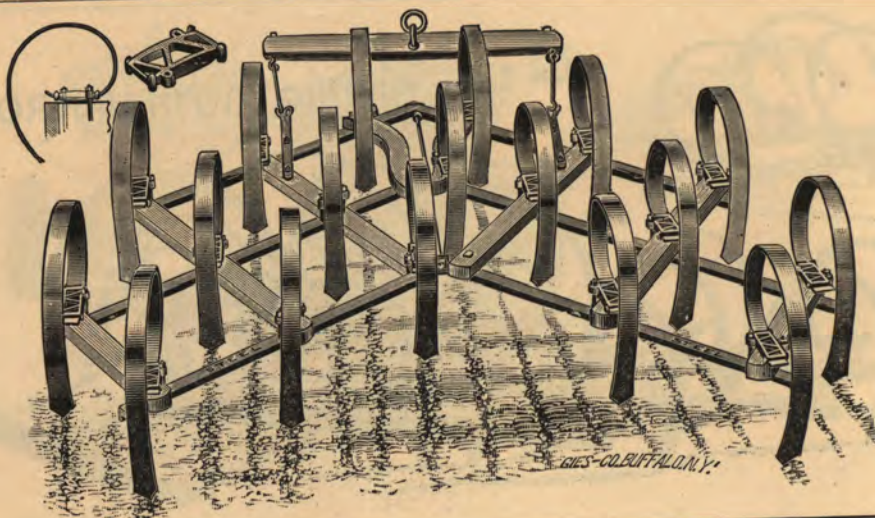
1st. The *Draft Bars* are of *Angle Steel*, giving strength and durability, while they are made to form the centre hinges, securing uniformity, so the half of one Harrow will interchange with another.

2d. The *Cross Beams* are of hard wood, without bolt holes, so they do not rot, and the *Angle Steel* is set in them so the Harrow can not rack.

3d. The *Teeth* are fastened with a malleable clip, held by bolts passing on each side of the wood beam, through the steel bars. The steel bars keep the bolt heads out of the ground.

4th. The malleable clip touches the Tooth only at its two ends, so when the bolts are tightened the Tooth springs against the clip, avoiding the loosening of nuts and teeth.

5th. The Teeth can be set in a moment to cut either deep or shallow.



Another Word About the Spring Tooth.

The U. T. K. is the only Spring Tooth Harrow with Angle Steel Draft Bars, for strength; with cross beams without bolt holes, for durability; and with a Tooth fastening, having a constant tension from the spring, preventing the loosening of nuts and teeth.

For deep, thorough and easy turning of the soil, there is no tool the equal of a Spring Tooth Harrow.

Styles of the Folding Harrow.

Excelsior No. 1, is shown in the first cut. It has $2\frac{1}{2}$ -inch square beams, steel braces, and strap hinges.

Excelsior No. 2, is like the No. 1, with spool braces, and malleable hinges, shown in the "folded" cut. A little lighter Harrow.

Excelsior No. 3, is the self-adjusting tooth, 2x3 beams, spool braces; the lightest one we make.

Excelsior No. 4, is a Two-Section Harrow, with 40 teeth, and with Runners for moving it.

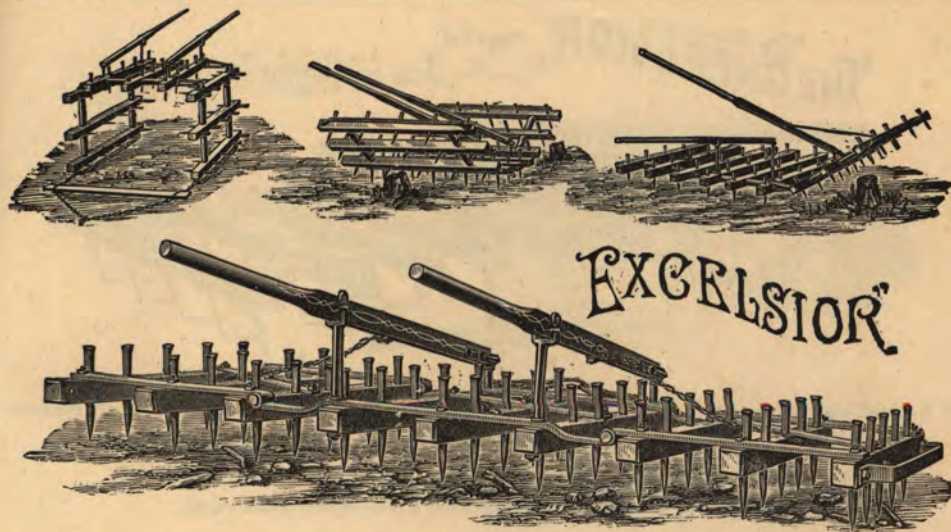
The beams of the number 1 and 2 are riveted at each end, and between the teeth.

Each Three-Section Harrow has forty-five steel teeth, spaced ten inches apart, cutting eight feet six inches wide, is all machine made, sand-papered, painted bright red, and nicely striped and varnished.

Every farmer should have the best general purpose Harrow, and here it is. A splendid pulverizer, a perfect leveling and smoothing Harrow, the best for cultivating small crops, one that can be used in grass, weeds, stones, stumps, &c., with ease and good results, and one that can be moved and handled anywhere with perfect satisfaction.

Where a cheaper, plain, Three-Section Harrow is wanted, the Handles and Runners can be left off, and the trade furnished with such at a reduced price.

The Farmers Friend Manufacturing Co., Dayton, Ohio.



“EXCELSIOR.”

It is not a common “drag,” add is not intended for farmers who are satisfied with that kind of an implement.

It is not made for those who want something cheap, regardless of results, or useful improvements.

The market is flooded with cheap spike-tooth harrows, made almost everywhere, but this is a different kind of an implement.

It is for those who want a Harrow that can be operated as is shown in the above cut. It costs but little more than common ones, and gives comfort to the user as well as satisfaction.

Besides its special features, shown above, it is better than a common “drag,” because the material is thoroughly seasoned white oak, steel, and malleable iron, and being made altogether by machinery, is smoother,

of better proportions, and the parts can all be duplicated.

The special features are, two levers for handling it, the manner of folding, and the runners on which it is moved.

TWO LEVERS FOR HANDLING IT.

They are placed so the Harrow is handled with the greatest ease. It is raised without trouble, or loss of time, and instantly cleared of trash.

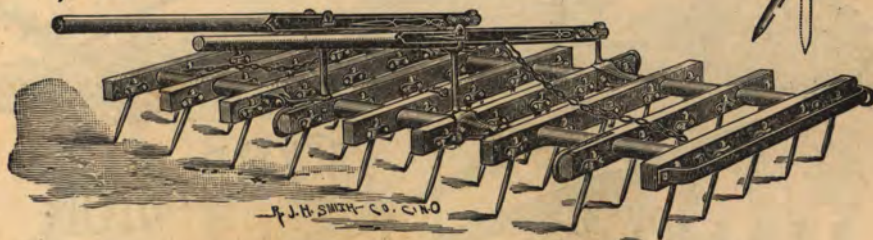
Either side of the Harrow, or both sides, can be raised to pass obstructions, or clear out trash, without stopping the team. Only the “Excelsior” does this.

It is operated easier than with one lever in the center.

It can be moved, or stored away, without taking the handles off.

The Farmers Friend Manufacturing Co., Dayton, Ohio.

THE "EXCELSIOR" WITH SELF-ADJUSTING-TEETH



To Level the Ground, to Crush the Lumps, to Pulverize the Soil, to Smooth the Surface, to Kill Weeds in Small Corn, to Work among Stones, to get over Stumps and Roots, to Harrow Foul Ground easy, fast, and well, use the Excelsior Harrow.

They are not in the way, and are placed in the best possible position for handling the Harrow.

THE MANNER OF FOLDING IT.

It is raised on end, when the sides fold in, and when lowered, it is in sled form ready to be moved.

* The points of the teeth are inside, where nothing can come in contact with them. Stock never gets hurt on an "Excelsior."

The teeth cannot strike the ground while being moved. It will pass over an obstruction two feet high.

It will carry the driver, a plow, or several sacks of seed grain.

THE RUNNERS FOR MOVING IT.

They are on the outside, so they weight the Harrow properly, making it cut better.

They protect the beams from contact with stones, stumps, &c.

They raise the lower teeth clear out of plowed ground.

THE SELF-ADJUSTING TOOTH.

This is a lighter Harrow, with the same appliances for using. It is designed for cultivating small corn, &c., as well as preparing the soil for the crop.

It has round teeth, fastened so when drawn in one direction they stand slanting for surface cultivation, and in the other, straight for cutting and pulverizing to a greater depth.

Used with slanting teeth, it pulverizes the soil and destroys the small weeds, without injuring the corn roots, which are below the surface.

Such a Harrow is the only implement that destroys weeds both in and outside the hill Keep the weeds down and give the corn a start.