

FARMERS FRIEND

MANUFACTURING CO.



MANUFACTURERS OF THE



FARMERS FRIEND



GRAIN AND

FERTILIZER DRILL



OFFICE AND FACTORY
WAYNE, STATE & BLIND STS.

DAYTON,

OHIO.

U.S.A.

FOR SALE BY

J. A. Gottfried & Bro.

UPPER SUNDUSKY, OHIO.

CIRCULAR.

The season of 1878 has been one of great success for the FARMERS FRIEND DRILL, and we review with pride the distinction it has attained and the steps forward the year has marked; its record from its first introduction many years ago has been one of ever-increasing success, and the last season has seen its attainment of the highest rank ever reached by any drill in the magnitude of its sales, the unbounded satisfaction of its purchasers and the honors bestowed upon it at home and abroad. There is scarcely a wheat-growing land or state where its merits are not known and its praises heard, and among the farmers wherever known, its name is a household word.

The extent of its popularity has brought upon us responsibilities and obligations that we have endeavored to meet by the production of a machine that should not disappoint its purchasers in any particular, and our efforts to do this have led us to improvements and changes in the past which we know have been appreciated and kept our drill ahead. This we shall continue to do, so every purchaser of a FARMERS FRIEND shall get every thing that is of any advantage in a drill, with the special features fully described in the following pages that makes it so much sought after and appreciated.

We wish to call particular attention to our success at the Paris Exposition 1878, and our own Centennial Exhibition 1876, described on other pages; at the former we were awarded the gold and silver medals, the only ones given to drills, which gives the FARMERS FRIEND an unqualified endorsement over all others, which were fully represented.

We invite the careful attention of all who contemplate buying or selling drills to these pages, and during this year of 1879 hope to come in communication with thousands of such who wish to buy or be identified with the most salable and most perfect drill in the world.

FARMERS FRIEND MANUF'G CO.

DAYTON, OHIO, *January 1, 1879.*



THE MANUFACTORY.

This is a correct picture of the building occupied in the manufacture of the Farmers Friend Grain Drills. It fronts on three streets, and extends an entire block on one of them; is four stories in height throughout, and presents an imposing appearance; it is built entirely of brick, and has all the modern appliances and arrangements for the systematic and expeditious transaction of the business of the company, and the thorough, perfect, and rapid production of their machines.

The first two stories, where the fitting and preparation of the material is carried on, are mostly filled with labor-saving machinery of the best class, much of which has been made with special reference to the work for which it was designed, and which make in perfect duplicates the different parts of the machines. The upper stories are used for putting together and storing the drills prior to their shipment to almost every part of the globe.

The Farmers Friend has been introduced and is now in actual use in thirty-five of the states and territories, in Canada and nearly all the British Provinces on this continent, in England, Scotland, Norway, Sweden, Denmark, Germany, and other parts of Europe, in several of the South American countries, Cape of Good Hope, Australia and New Zealand.

This extended sale has created a great demand, but the facilities of the company are not surpassed, and since enlarging their works to the above proportions they have been able to fill all orders.



THE FARMERS FRIEND PLAIN DRILL.

This drill has been for many years before the public, and its high reputation has been so fully established that for thousands of our readers an extended description is not necessary; but many of our friends who have examined it only casually, and others who may wish to buy and have no knowledge of it, will read with pleasure and profit of its construction and merit.

The above cut represents what is called our Plain or Single Drill in distinction from the Fertilizer or Combined Machine. It has the common or pin-brake hoes, and is furnished with a Force-feed Grass Seeder, Surveyor, and patent Hoe-shifter by which the hoes can be made in either zigzag or straight line from behind the drill and without loosening or removing bolts or pins.

The sale of Fertilizer Drills, which are described on another page, has increased very much in the last year or two, since the importance of the use of artificial manures on old or partially exhausted soils has been demonstrated; but there are millions of acres where the strength of the soil has as yet hardly been touched, and where the growth of vegetation seems almost spontaneous. Here only a plain drill is wanted.

The construction of this drill is very simple and durable, in which respect it stands out in strong contrast with many of the other popular drills. Its principal features, the *double force feed and cone gearing*, remain in effect the same as

they were years ago, being only perfected in detail of operation, while all others most widely known have been making radical changes in both construction and principle, making the FARMER'S FRIEND a tried and accepted machine, while the durability and accuracy of the new system with continued use has yet to be proven.

The two features of our drill here referred to are illustrated and fully described on the next pages, and careful attention and comparisons with other devices is asked, and is necessary to an intelligent conclusion.

The feed and manner of regulating the quantity constitute the most important part of a drill; but there are other things, the importance of which should not be overlooked.

The Grass Seeder

In many sections is widely used, and we have turned particular attention to it, making a FORCE-FEED SEEDER which will do as effective work as the grain distributors, carrying out any kind of grass-seed in the desired quantity.

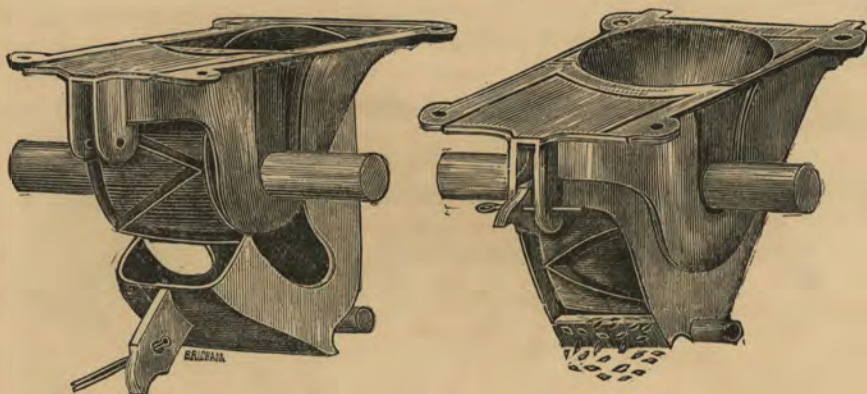
The Patent Hoe Shifter

Is too important to pass with only casual attention. Much more perfect work can be done with a drill having such a shifter than one with the hoes stationary in either a straight or zigzag line. It is advisable to use a drill with the hoes in a straight line to secure the uniform covering and even depth of all the rows, but in soil with straw, cornstalks, etc., on the surface, or grass or weeds in the ground, the hoes sometimes gather it up, when with a shifter one-half of them can be moved forward which will let it pass and clear them, when they can again be put in straight line without any trouble or loss of time. Every FARMER'S FRIEND has a patent rear-shifter to secure this advantage. It consists of a bar of iron with its forward end attached to a movable bar which carries one-half of the hoes, and the other end projecting back behind the drill where it can be reached to move the hoes forward. It is arranged so the hoes can be shifted to different distances, and is equally strong and substantial in whatever position the hoes are placed.

The Surveyor.

This useful appendage serves as a check on the feeding of the drill, and will, at all times, tell if the correct amount is being sown, while it shows the total acreage passed over, and will each night show the work that has been done.

The Surveyor on this Drill is perfectly accurate, and purchasers have said they would buy and sell by its measurement.



DOUBLE FORCE FEED.

We here show two cuts of this feed which may be said not to have a rival. It consists of a small wheel or distributor with zigzag ribs on its surface that form cavities in which the grain is carried around and delivered. The distributor being confined in a cup fitting closely at the sides, keeps all the grain on its moving surface, and the V shaped depressions in the wheel secure uniformity in the flow of seed, as at no place in the revolution of the feeder is it obstructed, and one side of the distributor commencing to feed before the preceding part has fully ceased, makes the discharge even and regular under all circumstances.

One cut shows the feeder as arranged to sow large grain, as corn, etc. No change is made, but the feed cup is in two parts and the bottom is lowered to permit coarse grain to pass around the distributor. By this means we secure a more perfect delivery of all kinds of grain, and have also the great advantage of being able to remove a small stone, nail, or any thing that might get in the feed cup and break it, as the bottom is hinged and can be swung clear back. The grain is kept from spilling out by running a small slide over the feeder, which we always furnish to enable the user to put in rows of corn or beans when desired.

The drill will sow wheat, rye, oats, barley, buckwheat, corn, peas, beans, flax, clover, timothy, etc.

The Perfection of Accuracy and Convenience.

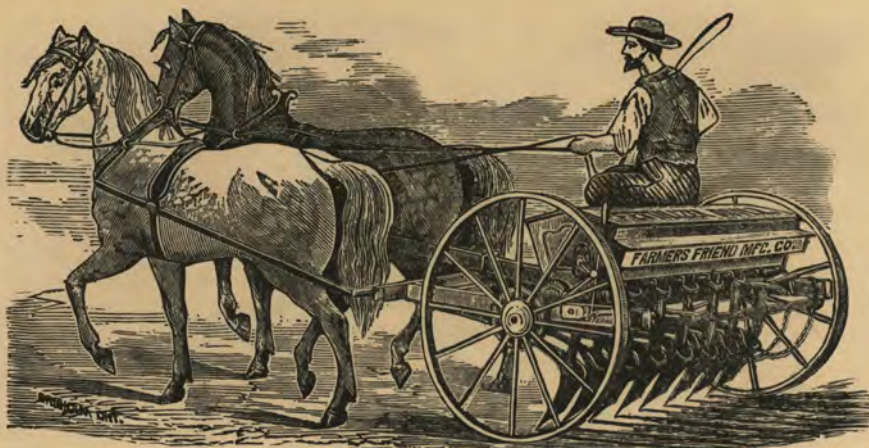


THE CONE GEARING.

One of the greatest advantages of the Farmers Friend has always been its accuracy of quantity and convenience of making the changes.

The old principle of making the distributors revolve faster or slower to increase or diminish the quantity is adhered to; but instead of changing loose gears, the wheels or gears are bolted in a cone, and a cog wheel on the main shaft is moved by a lever into such a wheel of the cone as will make the distributors revolve fast enough to sow the desired quantity. The rear end of this lever moves over a notched plate with figures showing what each wheel will sow.

This device is as quickly and easily operated as any other, and is positively accurate. Each wheel is calculated with just cogs enough to sow the desired amount, and every time it is used the result must be the same, and no amount of use can change it or get it out of order. Contrasted with this changing the speed of the feeders we have drills with sliding feed-wheels—a gate sliding over the feeder, a gate in the feeder, etc.—all seeking to change the quantity by increasing or diminishing the capacity of the feeder. All these devices meet the serious objection of the changing of vital parts, any derangement of which proves disastrous to the drill, and still more serious the uncertainty of sowing any desired quantity, as the change is mere guess work, the striving to get the parts of the feeder in certain relations to each other when the variation of 1-16 of an inch will make a difference of a peck in the quantity sown.



FARMERS FRIEND FERTILIZER DRILL.

Perhaps there is no question pertaining to their vocation that is agitating farmers more at the present time than that of using artificial fertilizers, and the best method of applying them. It is a fact that lands which at one time yielded from 25 to 40 bushels of wheat to the acre now produce only 10, 15 or 20 bushels at the most; and how to invigorate the soil or cultivate it so as to obtain again abundant harvests is a subject of the greatest importance.

The increased yield from the use of manure proves that some quality or ingredient is lacking from the soil which is needed for the perfect growth and maturity of the grain, and which is replaced by the application of the artificial stimulant. How to turn this knowledge to practical use has been the subject of much study and experiment, and the results obtained make it no longer an experiment, but prove that the use of fertilizers will increase the yield much more than their cost, and bring it up almost or quite to what it was when the soil was new and first broken.

What fertilizers will produce the best result depends somewhat on the nature of the soil, but any of them, as plaster, lime, ashes, bone-dust, phosphates, etc., will always pay for their use from 10 to 30 per cent. in any section where the yield per acre has fallen below its original production.

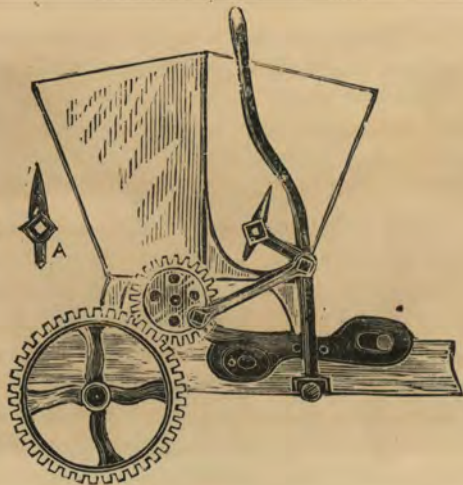
The high price of guano and many of the manufactured phosphates and other fertilizers has been urged as an objection to their use. But fertilizers are not confined to the above kinds; hundreds of farmers make a large portion or all that they use. A compost heap, if properly treated, makes an excellent fertilizer, and leached ashes, slacked lime, chip dirt, hen manure, etc., can be pulverized when dry and used to great advantage.

For 25 or 30 years the farmers of some of the eastern and southern states have been using fertilizers, and it has become so general that in drills for that market the parts for sowing grain are considered of secondary importance to the fertilizer distributor. Long experience with fertilizer drills there, and the use of a greater variety of fertilizing substances, has proven that some machines that will sow bonedust, plaster, or fine dry phosphates very well, will not sow the stickier kinds, as guano, damp phosphates, etc. To sow these as well as others requires something more than an agitator—something that will not clog up, and something simple and of few parts, to secure light draft, durability and perfect work.

In the construction of the Farmers Friend we have profited by several years experience, and by observing the demands of the trade and the devices best suited for the purpose, have succeeded in perfecting our machine beyond every thing ever known in the history of fertilizer drills, and offer it to the trade for 1879 with the assurance that every requirement for a perfect combined machine has been met.

The principal thing is the device for distributing the fertilizer, and reference to the cut on the next page will show its construction. The hopper is divided in two parts—the front part for grain and the rear for fertilizer—and underneath is a cup to receive both and carry both to the tube that leads down through the hoe to the ground.

The bottom of the fertilizer box is covered with galvanized iron and being curved as shown, sows out clean; through the length of the box passes a square shaft, to which is attached by arms a light piece of iron with sharp corners which is made to vibrate back and forth across the bottom, which has a long square hole in it for each tube, through which the fertilizer is discharged. *The arms that secure the agitator project above the center shaft, and moving through the fertilizer above the center keep it from bridging, and the agitator is made adjustable so it can be lowered to keep the sharp corners on the bottom, which makes its distribution positively uniform and regular.* A cap on the hopper end can be removed, and the agitator instantly removed should that be desirable at any time.



At the end of the hopper is a lever by which the fertilizer is thrown in and out of gear at any time, independently of the drill, so the fertilizer can be sown or not in any part of the field, as may be desired, while the bar to lift the hoes also controls the gearing.

In quantity it will sow any desired amount from 50 to 800 pounds, and is regulated by a lever moving over a notched plate, indicating what it will sow; as the agitator is in motion only when sowing, or at the will of the operator, none is wasted.

The fertilizer is geared from one end of the machine and the drill from the other, so the draft is equalized, and the machine is so simple that it runs as light as the plain drills of most other manufacturers.

The fertilizer drill was the one used at the great field trials of the Paris Exposition and the Agricultural Society of Scotland, described on 12th page.

Plain Drills Changed to Fertilizers.

The great desire to use fertilizers has made many inquiries from the owners of plain drills purchased in the last few years to have them changed to combined machines. We have made patterns such that any drills of our manufacture can be so changed at our factory for a small advance over the regular extra price for the fertilizer, and the freight both ways.



DRILLED AND BROADCAST GRAIN.

WHY THE USE OF A DRILL IS PREFERABLE.

IT SAVES TIME AND LABOR. A boy can put in from ten to twelve acres a day easier than two men can put in a less amount in the same time broadcast.

IT SAVES SEED. As every kernel is put under the soil, and the exact quantity is sowed. A PECK LESS OF SEED WILL PRODUCE AS GOOD OR BETTER RESULTS THAN THE FULL AMOUNT SOWN BROADCAST.

IT IS SOWN MORE EVENLY, and being put in at a regular depth it comes up evenly, secures a better stand, and is uniform in growth and ripening.

SECURE FROM DRY WEATHER OR FROST. Being put under at a proper depth, it lays in a moist soil, comes up quicker in dry weather, will stand a draught better, having roots deeply seated, and is secure from damage by winter-killing.

THE YIELD IS INCREASED. The yield is larger, because the drill hoes pulverize the ground as much as one operation of the harrow, while it at the same time deposits the grain in the bottom of a furrow where enough fine soil falls over to cover the seed, and leaves a drain into which the water carries the wash of the soil, which is the richest portion, nourishing the roots of the grain. A careful compiling of reports from all wheat-growing states show that the average increase from using a drill is from five to ten bushels per acre. In many cases it is doubled, and the increase on forty acres drilled with the same average sown broadcast has been enough to pay the price of a drill in one season.



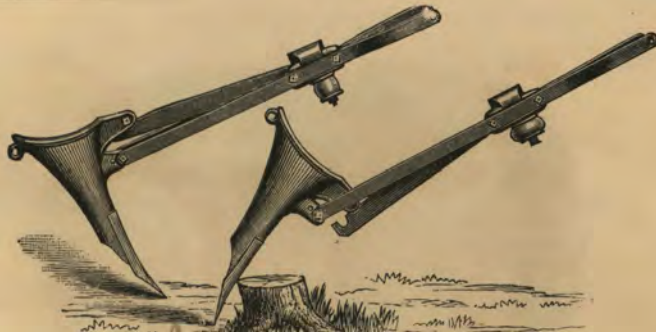
FARMERS FRIEND SPRING HOE DRILL.

The operation of this drill is here shown and can be comprehended at a glance. For new ground in which there are roots or small low stumps not yet removed, or where there are fixed stones either above or just beneath the surface, it is the most time-saving and convenient attachment put to a drill.

The construction of our Spring Hoe is shown by the cut on the next page. The hoe is attached to the drill in the usual way, but is arranged so the fastening forms a hinge, and when the hoe strikes any fixed obstruction it flies back and passes over it, when the expansion of a rubber spring, that is compressed in the operation, brings it back to its proper position.

Its superiority consists in the lock by which the hoe is held when in ordinary use. The center-bar, or lever, has a notch in one end that engages with a roller in the ear of the hoe; the rubber spring has only to hold this piece in its position, and all strain or pressure is received in the notch, so the rubber is not affected until the hoe must come in operation, when the roller referred to rolls up on the lever and it is compressed as shown.

By this construction we secure a hoe that is durable, and that can never fail to retain its position in ordinary work, which advantage can not be secured when the pressure comes more directly on the rubber spring.

CHICAGO-ENG. CO.
SPRING HOE OF THE FARMERS FRIEND GRAIN DRILL.

SPECIAL NOTICE.

We wish to call special attention to our Double Force Feed described elsewhere, as distinguished from the sliding and adjustable feeds of various kinds. Our distributor is perfected to sow the different kinds of grain, and then never changed in position, and the desired quantity is sown by using the CONE GEARING. So accurate is this that in the entire five Centennial tests, as a drill would be used in the hands of a farmer, sometimes in one position and then in another, it sowed but ONE POUND FOUR AND THREE-FIFTH OUNCES more than it was set to sow, the tests representing ten bushels sown on five acres; and at the field trial at the last Paris Exposition it varied but one and one-half ounces in an up and downhill test of half a mile. Such accuracy has never been attained in any other drill.

Another point of excellence is that the feed wheel is confined and fitted closely to the sides of a seed-cup, so the grain can not fall away from or accumulate on the feeder, and thus sow more or less with the varying position of the drill, but it is always in THE CUP AND UNDER THE FEEDER, and must be uniform and accurate under all circumstances.

The ribs on the distributors do not serve as agitators, but as carriers for the grain which occupies the cavities formed by them and the space beneath in the cup, in its passage around the wheel; and they are so formed that at no point is the discharge of grain obstructed; even when a whitecap or like obstruction is being brought through, and whether sowing a large or small quantity, on the level or hillside, driving fast or slow, the flow of seed is unceasing and uniform, and skipping or bunching an impossibility, as every revolution of the feeder must bring out the same amount of grain.

PARIS EXPOSITION, 1878.



GRAND GOLD MEDAL OF HONOR AT THE FIELD TRIAL, AND SILVER MEDAL AT THE COMPETITIVE EXAMINATION. THE HIGHEST PRIZES GIVEN TO GRAIN DRILLS.

This is the crowning triumph of the Farmers Friend. The competition was the strongest ever known at a world's fair, except at the Centennial Exhibition. With one exception the members of the committee were representatives of foreign governments, who would, of course, judge the machine only on its merits, and the unanimous verdict of a jury composed of such distinguished men, makes this success the most remarkable ever achieved by a drill in a field trial.

The prizes for drills were in the hands of two committees—one of which examined the machines in the Exposition, and the other conducted the field trials. After a thorough examination and trial the gold medal was awarded by the field trial committee (the most important) to the Farmers Friend, and the silver medal, by the other committee, also to the Farmers Friend.

At the trial we used an 11-hoe fertilizer with spring hoes. It was operated so the grain and fertilizer were distributed on the surface of the ground to show the regular sowing, and the quantity and its accuracy was determined by driving down a rough hill about half a mile and back again, and weighing the grain after each test, which showed a variation of only *one and one-half ounces*; the result was so astonishing that no other drill, though several were on the ground, would submit to the test.

GOLD MEDAL FROM THE AGRICULTURAL SOCIETY OF SCOTLAND.

Extract from the Society's record: "American Grain Drill—the Farmers Friend—tried on the 19th of November, 1878; a useful invention, easy of draft and well adapted to the purpose, and the committee recommend the gold medal of the society, particularly for the ingenuity of the force feed for grain, and the conical arrangement for regulating the supply." Award approved by the society

U. S. CENTENNIAL EXHIBITION, 1876.



Extract from page 7 and 8 of the General Report on Drills:

After describing the different systems of feeding, they say: "The great point of difference as to results depends upon whether the roller fills the seed-cup [like the Farmers Friend], or only occupies a varying portion according to the quantity of seed to be sown, and from the varying reports of the trial we **unhesitatingly pronounce in favor of those drills which have a fixed feed-roller occupying the entire space of the feed-cup.** [The Farmers Friend.]

"Then again, the quantity of seed to be sown is regulated in two ways, either by change-wheels, causing the seed-spindle to revolve faster or slower, or by opening or closing a slide-door in the seed-cups. The latter plan has an apparent advantage, namely, that the regulations can be minute and made while the machine is in operation: whereas, with one exception (Farmers Friend Drill), change of gear-wheels can only be done when the drill is stationary. Nevertheless, we are firmly persuaded that the change of wheels, which is the original plan, is **DECIDEDLY THE MORE ACCURATE.**

"We especially notice the **FORCE FEED** arrangement in the . . Farmers Friend Drill, the force-feed roller of which is cylindrical, with eight zigzag ribs on its surface, each alternate one running in an opposite direction, being slightly concave. The seed is forced out from both sides of the cup, and a regular, even distribution secured. In this drill (Farmers Friend) alteration of quantity is effected by change of wheels; but by a clever arrangement of a cluster of wheels on a cone, the wheel can be changed by a lever handle while the machine is in motion."

The broadest recommendation is here given to the feed of the Farmers Friend the system of change-wheels pronounced the best, and the Farmers Friend with these wheels in a cone controlled by a lever undisputably ahead of all drills.

TESTIMONIALS.

We can give room only for a few letters commending our drill from a part of the states and territories where it is extensively sold, but we have letters on file from nearly every county in every wheat-growing section of the country.

Ohio.

M. N. Russell, Irondale, Jefferson Co.

I gave the drill a first trial September 16th, and have put in seventy acres with it. I am well pleased with it, and prefer it to any other in the neighborhood. It is very easy on the horses, and feeds regular and does not clog at all.

Wm. H. Eldridge, Bartlett, Washington Co.

The Farmers Friend Combined Drill sows both grain and phosphate beautifully. Tried it on the barn floor first, and exactly the same quantity was delivered through each tube. Has already earned \$25 at 25 cents an acre. The purchaser would not "swap" for any drill made.

Indiana.

J. F. Keach & Bro., Tampico, Jackson Co.

The drill does fine work. Used it in the field to sow grain and bone-dust, and it gave the best satisfaction.

H. C. Wyand, Hillsboro, Fountain Co.

I have sold the Farmers Friend Drills for four years, and will say they are a success and give entire satisfaction. The cone gearing, in my opinion, is the greatest invention of the age, and too much can not be said in its favor.

Michigan.

G. W. Ensminger, Athens, Calhoun Co.

The drills I sold last season gave the very best satisfaction in every particular. I handled other drills in connection with the Farmers Friend, but I find it to my advantage to handle your drill exclusively this season. It certainly is bound to excel all others in this state. The force-feed grass-seeder beats them. The cone gearing is all that is claimed for it—in fact is just what the farmers want.

James Doyle, Pinckney, Livingston Co.

Your Drill, purchased of your agent, C. Plimpton, of Pinckney, in 1874, has given me perfect satisfaction, and I can safely recommend it to all farmers who wish to purchase a drill. It does its work well on level, uneven, hilly and stony ground; is very light draft, and proves to be very durable. I have not been to one cent expense for the three years I have used it, and have drilled about fifty acres per year, and in fact I find it perfect in every respect.

Pennsylvania.

B. F. Reighard, Espy, Columbia Co.

I started the fertilizer on the 19th, and it works like a top. He did not want to take it as he thought it was too heavy, it being a 10 hoe and he had ordered a 9 hoe. I told him to try it and if it did not suit we would take it away. He sowed 1½ bushels of wheat and 6 bushels of hen manure, when he said it run lighter than the smaller plain drills they formerly hired, and settled for it at once.

H. Y. Pickering, Yardleyville, Bucks Co.

I am very much pleased with my drill. I drilled in eighty-five acres, and it put the seed in very evenly, and exactly to the quantity. The fertilizer did admirably, and it does not run any harder than a plain drill. The cone gearing is first-class, and the machine stands at the head.

New York.

J. Welch, Alton, Wayne Co.

One of your drills is in use in this place. It is owned by N. Rowland, and it is admitted by all who have seen it work to be the best drill that is made.

Wm. H. Newcomb, Perry Center, Wyoming Co.

I tested on my farm this afternoon a fertilizer drill of your manufacture, in sowing barley with Buffalo super-phosphate. The drill was set to sow two bushels per acre, and it put six bushels on three acres, as indicated by the surveyor. This I know to be correct, as I had previously measured the lot, and the two measurements correspond. The discharge of grain was even and uniform, whether on hillside or the level, and in this respect excels any thing I ever used or saw. The cone gearing I consider a valuable invention, as it is easily adjusted to vary the quantity sown, while it possesses all the reliability of the old style of cog gearing. The fertilizer attachment works to a charm, distributing the fertilizer continuously in quantity varying from 50 pounds to 200 pounds. From its appearance I think this part of the machine to be as durable as the grain run, and that it will continue to operate as well as now. The drill is easily handled by both man and team, being of very light draft.

Long Island.**Terry Bros., Orient, Suffolk Co.**

We are pleased with the working of the drill. We wanted first to satisfy ourselves from personal experience about it before speaking, and this we are now prepared to do.

New Jersey.**Joseph A Minch, Bridgeton, Cumberland Co.**

I am perfectly satisfied with the Farmers Friend Grain Drill bought of you last fall. For ease in management, lightness of draft, and quality of work done, I think it is superior to any drill with which I am acquainted.

Delaware.**J. S. Garman, St. Georges, Newcastle Co.**

Mr. Riley and myself purchased one of your combined drills, the Farmers Friend, from your agent, Mr. J. F. Reybold, and find it a very simple and superior drill, and does its work splendidly.

John Hunn, Jr., Wyoming, Kent Co.

I want to handle the drill again, and think next year I can do very much better, as those out are speaking for themselves.

Maryland.**James R. Chesney, Boothby Hill, Harford Co.**

The new drill (a phosphate) I sold this fall works nicely, and I could have sold more if I had had them on hand when the parties saw this one working, but it was too late to order any.

John Carhart, Zim, Cecil Co.

The Farmers Friend Drill purchased from you has proved itself, after seeding about fifty acres on my own farms and about as many acres more for my neighbors, to be a first-class drill, both in sowing wheat and fertilizers as well as grass seed. Therefore can freely recommend it to be *the drill*.

Virginia.**M. D. Cowherd, Gordonsville, Orange Co.**

The fertilizer drill purchased of your agent, H. C. Baker, last fall, has given entire satisfaction. Your feed rollers are so arranged that it is impossible for them to clog up. It is the most reliable and perfect feed I have ever seen. Taking this and other improvements into consideration the drill stands without a rival.

Georgia.**Cherokee Iron Co., Cedartown, Polk Co.**

We are much pleased with the drill received from you, and consider it a good investment to farmers raising much grain. Besides being a labor-saving machine it saves much seed. The spring hoe will answer for rough ground much better than the wood pin arrangement.

Mississippi.**J. C. Schwartz, Natchez.**

The drill has come to hand, and after trial is pronounced satisfactory.

Tennessee.**M. A. Hardin, Decatur.**

I bought one of your drills two years ago, and must say it is one of the best I ever saw.

Kentucky.**J. P. Simmons, Kirksville, Madison Co.**

I have used your drill two years. The first year I sowed one bushel per acre, which I think made me a better yield than one and one-half bushels broadcast. Last fall I sowed one and one-fourth bushels per acre, and I never had such a prospect in my life at this time. I am well pleased with your drill, and if I raise wheat I can not do without it.

Illinois.**Michael Humphreys Red Bud, Randolph Co.**

The drill we bought of Huth, Schmidt & Co., is the best ever used in this section of country. We used the Gundlock, Buckeye, and others, but the Farmers Friend is the king of all, and can not be beat.

Minnesota.**N. C. McLean, Frontenac, Goodhue Co.**

On Saturday last I had the drill running complete, delivering wheat, grass seed and bone dust, and I was delighted with its operation.

Kansas.**N. C. Mathers, McPherson.**

Your drill is well liked by every one that sees it. S. A. Allen, of this place, has one he bought two years ago, and all his neighbors will have nothing but the "Friend." They all say there is no other drill that will do its work so well in all kinds of grain and ground.

Iowa.**Richardson Bros., Davenport.**

The grain drill purchased of you last season gave perfect satisfaction in every particular. Too much can not be said of its merits.

Wisconsin.**H. S. Burke, Hudson, St. Croix Co.**

I have used one of your drills for two years, and would not trade it for any new drill in the county. I have given it a fair test and find it perfect.

Oregon.**T. Cunningham & Co., Salem.**

We have no fears as to the future of your drill in this market. We have never had a single objection raised to the machine. In fact it is all we could desire.

Ontario.**R. C. Read, Chatham.**

There will be a good demand for your drill here next year, as all admit it is ahead of any thing yet introduced.

RETAIL PRICES.

8 hoe drill, 8 inches apart	\$70 00
9 " " 7 " "	75 00
10 " " 7 " "	80 00
11 " " 7 " "	85 00
12 " " 7 " "	90 00
Fertilizer drills additional	27 00
Spring hoe drills, extra per hoe	1 00

Payable one-half October, 1879, and one-half a promissory note maturing January 1, 1880, with the legal rate of interest from October 1, 1879.

A Force Feed Grass Seed Sower and Patent Rear Hoe Shifter is added without extra charge.

The drills are delivered free on board the cars at Dayton, but the freight from this city, or such distributing point in any state as may be agreed upon, must be paid on receipt of the machine.

Orders from strangers must be accompanied with the cash or reference to some prominent merchant.

Drills ordered without specifying the desired distance between the hoes, will be shipped according to the above price list; and the fertilizer or spring hoes are never shipped unless distinctly ordered.

The sizes of drills best adapted for different localities depends entirely on the nature and condition of the soil. Where the ground is level, mellow, and free from trash, the larger drills can be used to advantage, and an ordinary team of horses will handle them with nearly as much ease as the smaller ones; but for a heavy clay soil or trashy surface the 8 hoe drill is preferable.

WARRANTY ON THE FARMERS FRIEND DRILL.

The Farmers Friend Manufacturing Company hereby warrants all drills of their manufacture to be well made, of good material, and if properly managed to do good work, and to sow evenly and regularly. One day shall be deemed sufficient time for a trial, and in case it should not operate properly notice must be given forthwith to the party of first part or their agent, and time allowed to put it in order. If it then does not work, and the fault is in the drill, that part which is defective shall be replaced or remedied, or a new machine shall be substituted in its place; the failure to furnish such notice after one day's trial shall be conclusive evidence that the drill has been accepted.

FARMERS FRIEND MANUFACTURING COMPANY.

Alphabetical Arrangement of Contents.

Accuracy at the Centennial and Paris	11
Cone Gearing	5
Centennial Exhibition and Medal	13
Double Force Feed	4
Drilling and Broadcasting	9
Extent of its Sales	Inside Cover
Factory of the Company	
Feed	4
Fertilizer Drill	6
Fertilizer Distributor	8
Grass Seeder	3
Hoe Shifter	3
Prospectus	1
Plain Drill	2
Plain Drills Changed to Fertilizers	8
Paris Exposition and Medals	12
Review of 1878	1
Retail Price List	16
Surveyor	3
Spring Hoe Drill	10
Special Notice	11
Testimonials	14
Trial in Scotland	12
Use of Fertilizers	7
Warranty	16
What it will Sow	4



FARMER'S FRIEND



DOUBLE FORCE FEED.

CONE GEAR.



*FERTILIZER
DRILL.*

*PLAIN
DRILL.*

