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1893.

THIS CATALOGUE REPLACES ALL OTHERS.

Engines,

Threshing Machines,

Horse Powers.

A. B. FARQUHAR CO., LIMITED

YORK, PENN'A

ORDERS. A hearty welcome is extended our customers who may desire to call in person,—but we adhere strictly to our rule to do just as well by those who order by mail. To insure prompt shipments, orders from strangers should be accompanied by cash or satisfactory reference

Full shipping directions should be sent with order, but when choice is left with us, we always attend personally to selecting the route and obtaining best rates of freight (either by New York, Philadelphia or Baltimore).

Goods shipped by water will be insured when so directed, and premium charged in bill, or will accompany freight charges. No charge is made for packing or drayage. All goods will be delivered free on board cars, at our factory, and in all cases must be at purchaser's risk—after shipment—the carrier alone being held responsible, if loss or delay occurs

Through bills of lading given to all prominent points. On small orders, freight to Baltimore is about 15 cents per hundred; to Philadelphia, 20 cents; and to New York, 30 cents per hundred.

Careful attention given to contract work for special purpose. Competent draftsmen constantly employed to make drawings and estimates.

TERMS. Our terms are 30 days, in current funds. Orders from parties unknown to us must be accompanied by the cash or satisfactory references. We do not consign or send out goods unsold. Remittances may be made by Check, Draft (New York preferred), Postal Order, or by Express, prepaid.

We have found the cash system, or part cash and good security for balance, indispensable, in order to avoid taxing responsible customers for what is lost by the irresponsible, and to enable us to keep down the price of our goods while keeping up the quality to the highest standard.

WARRANTEE. All articles manufactured by us are warranted to be as represented—that is, to be well made and of good material—and in no instance will they be taken back, except in case of imperfection. A fair trial, say one week, is allowed after receipt of machine, and any dissatisfaction upon the part of purchaser must be made known to us, or our agent, within that time, and opportunity be given to make it satisfactory; in case of failure, the machine may be returned at our expense, and all payments refunded.

Our facilities for manufacturing are such that we can usually promptly execute all orders for machinery, whether of wood, iron, or steel. All inquiries will be answered to the best of our ability.

Respectfully,

A. B. FARQUHAR CO., LIMITED.

FARQUHAR'S IMPROVED PATENT THRESHING MACHINES.

WARRANTED THE BEST IN USE.

No machine is of greater importance to the farmer than that which saves his grain crop; and it will always pay him to get the best. Having long made the manufacture of Threshing Machines a specialty, and expended thousands of dollars in experimenting and perfecting them, we are now able to offer a machine which we will warrant superior to any other in the market,—in durability, light draft, simplicity, perfect operation, mechanical construction and general efficiency. This is saying a good deal, we know, but we will stand by it. (See warranty, page 8.)

We make many different kinds and sizes, as shown by engravings upon the following pages, from the twelve-horse steam separator to the one-horse tread power machine; but all of them belong to one family and may be distinguished by the following characteristics. The cylinder and concaves are made of wrought iron and the teeth of steel, fastened in by screws and nuts; the side plates and all parts liable to wear are iron. The shafts and pinions are steel. The boxes are genuine anti-friction metal and self-oiling. They are arranged for either belt or gear.

All of them have my patent duster, which feeders will appreciate, and the concaves of all are adjustable. In short, the machine combines the advantages of all others in the market, and will last a life-time with careful usage.

THE FARQUHAR SEPARATOR AHEAD!

At the Centennial Field Trials, held July 18th. to 22d, 1876,
at Schenck's Station, Pa.

THE FARQUHAR SEPARATOR,

Exhibited at the Centennial, received the medal and highest award of merit as shown by the following report of the Judges :

INTERNATIONAL EXHIBITION.

PHILADELPHIA, 1876.

The undersigned having examined the Farquhar Separator, respectfully recommend the same to the United States Centennial Commission for award for the following reasons, viz. :

For great strength, simplicity of construction, efficiency, and for the following specialties :

Peculiar form of threshing drum and concaves, the teeth being so shaped as to avoid breaking the grain. For vibrating carrier, composed of ribbed sheet iron with projecting notches, with open spaces for the passage of the grain to conveyer. For the agitators which shake the grain from the straw. For the adjustable self-regulating fan, and for the measuring hopper.

JOHN COLEMAN, *Judge.*

Approval of Group of Judges.

JOHN P. REYNOLDS

JAMES BRUCE,

EKEDA KENZO,

E. OLDERDORFF.

A true copy of the record.

FRANCIS A. WALKER.

Given by authority of the United States Centennial Commission.

A. T. GOSHORN,

Director-General.

J. L. CAMPBELL,

Secretary.

J. R. HAWLEY,

President.

The following are the only machines that developed a high rate of threshing :

	Size.	Size Cylinder of Thresher.	Weight of Sheaf Wheat Threshed.	Time.
Farquhar . . .	6 horse	30 inch	2000 lb.	14½ minutes.
Geiser	10 "	34 "	2000 "	16 "
Westinghouse .	10 "	36 "	2000 "	15½ "

It will be seen that the two machines with which we were in closest competition, were each two sizes larger and were driven by 66 *per cent. more* power than the "*Farquhar*," but, with these odds against us, we beat the time of one by 7, and the other by 10 per cent.

THE FARQUHAR SEPARATOR

Took the highest prize awarded Separators—the Silver Medal—at the Paris Exposition; and drew the highest prize at the Field Trial, on account of its lightness of draft, rapidity, and economy of work. *The machine was sold on the ground.*

THE FARQUHAR SEPARATORS

Are fast taking precedence, and they are acknowledged the leading machines wherever they have been introduced.

They are now being sold throughout Europe, Australia, and South America, as well as in all parts of the United States.

Shall be pleased to send a copy of testimonials upon application.

FARQUHAR'S RAKE SEPARATOR OR THRESHER AND CLEANER

WAS AWARDED THE MEDAL AND HIGHEST DIPLOMA AT THE CENTENNIAL.

WARRANTED ONE OF THE MOST DURABLE, LIGHTEST OF DRAFT, AND MOST EFFICIENT IN THE WORLD.

The above cut shows the machine ready for work, with Tailing Elevator and Straw Shute. Stacker attachment furnished when desired.
It Threshes, Separates, Cleans, and Bags ready for market.

Wastes less grain, runs lighter, is stronger, more complete and durable, and less liable to get out of order than any other.
Chain is now used instead of belts, being more durable and giving less trouble.

THRESHERS AND CLEANERS.

FARQUHAR'S PATENT SEPARATORS.

The Thresher and Cleaner, or "Separator," as its name indicates, is designed to complete the process of saving the grain; first threshing it, then separating from the straw, then cleaning it, and, lastly, bagging it ready for market. Where there are no barns or threshing floors the Separator is indispensably requisite to profitable grain farming. And even with the most approved arrangements for threshing, it will pay a good interest in saving of grain and labor to lay aside the old-style wasteful open thresher and hire or buy a Separator. The farmer wants a machine that will thoroughly thresh, separate, and clean all kinds of grain, no matter what its condition. This is a difficult thing to do—so difficult that many thousands of dollars and a vast amount of brain labor were expended before the present comparatively perfect machine was produced. The next effort was directed to lessening the complications of parts and divesting the machine of all superfluous attachments, and in this we flatter ourselves that we have been eminently successful.

The Farquhar Separator has few belts and little gearing, and, consequently, is remarkable for its durability, simplicity, and light draft. See previous remarks under head of Threshing Machines.

GENERAL REMARKS.

The four-wheeled Separators are all arranged so that the front wheels pass under the machines, enabling them to turn around in from 15 to 20 feet space. The wheat is delivered from a spout in the most convenient place, near the center of the machine, and every grain that passes through the cylinder is caught in the bag or measure—no waste anywhere. The separation of the grain commences in front of the concaves and continues to the extreme end of the machine.

THE THRESHER CYLINDERS

are all made of the best wrought iron. The steel teeth are all threaded and fastened with nuts. The shaft is steel and runs in self-oiling anti-friction metal boxes, and suited to either gearing or belt.

THE CONCAVES

are made of iron like the cylinder bars, and are arranged with blanks suiting all kinds of grain; the spikes are all interchangeable and secured with nuts. They are *adjustable* to the cylinder by a self-sustaining cam, and can be moved up or down without stopping the machine.

NO DUST

is thrown in the face of the feeder by this machine. The construction of the cylinder cover (peculiar to our threshers and patented) sends the dust back with the chaff, where it belongs.

THE SEPARATOR ATTACHMENT

is constructed on the vibrator principle which has been demonstrated to be the best. The vibrating parts are so supported upon swinging hangers as to give the easiest and at the same time the most efficient movement for the purpose of separating the grain from the straw. The movement of the vibrating parts is so adjusted that they balance each other, allowing the machine to sit steady. This part of the machine, which is usually so complicated as to give endless trouble, is in our Separators perfectly simple.

TAILINGS ELEVATOR (Farquhar's Patent).

This troublesome attachment, in other Separators, is simple, durable, and cannot be choked in ours. The working parts are made entirely of iron. (See engraving on page 67).

There is a screen in the bottom of the elevator which sifts out the cockle, chess-dirt, and other impurities.

THE STACKER

will carry away the straw, and, if desired, both the chaff and straw. It is of the best pattern. Stackers are generally ordered with the Farquhar Vibrator, but are never sent with the Farquhar Rake Separator, unless specially ordered.

FINISH.

The machine is constructed upon scientific principles and of the best material, and no pains are spared with the workmanship. Both wood and iron are well protected by the best paint.

THE GEARED MACHINE

(i. e., connected with horse power by gear) possesses many advantages, among which are the following: All the power of the team is directed upon the thresher, and there can be no loss by slipping as with the belt; consequently, the machine will do more work or run easier, doing the same work. Where parties use horse power we would recommend gearing. Geared Connections with horse power are used almost exclusively in this section.

CHAIN BELTS.

Persons who have been tormented with machines with a dozen or more leather or gum belts (the failure of any one of which to properly drive its pulley causes a choke up), will be able to appreciate the great advantage of this improvement.

The chain belt never slips or breaks.

CAPACITY.

It is hard to estimate the capacity of a threshing machine, so much depends upon the power and quality of the grain, but we will warrant the Farquhar Separators to do as much work with the same power, and do it as well or better than any others in use.

MOUNTINGS.

All machines are framed on sills and may be used with or without wagon or trucks at pleasure, but would recommend their always being mounted

ON FOUR-WHEEL WAGONS.

Our wagons are very strong and convenient; the front wheels passing under the machine—all are provided with thimble skeins

ON TWO WHEELS OR TRUCKS.

Parties buying small size machines (No. 4) for their own use may (on the score of economy) advantageously use them on two wheels or trucks. Mounted in this manner the machine is readily moved about the threshing floor by hand; and in transportation the tongue is fastened to the axle of a wagon or cart.

SUPPLY OF MACHINES.

Up to this date we have had difficulty in filling the large number of orders we have received for our Separators, but have now so largely increased our capacity for manufacturing and our stock, that we think we can promptly fill all orders; but would advise their being sent in as early as possible.

CHAIN BELTS.

Our New Iron Chain Belts have been found a great improvement upon the cog gearing or leather or gum belts, running more quietly and less apt to break than the former, while they are more durable and efficient than the latter.

The chain belt cannot slip and will not wear or break in ordinary use, but in case of accident a new link can be substituted in a moment, as illustrated in engraving below. Extra links are sent with the machine.

Illustration of the mode of coupling links together : The chain hinges around the wheels with back of hook next the wheel and cannot detach.

Showing application of chain to driving pulleys.
The motion is positive, avoiding friction
and strain on journals.

Tailings Elevator and Scraper Attachment.

Price of Separator Chain per foot 16 cents.

Price of Elevator Bucket 8 cents each

THRESHING ENGINES.

We would call especial attention to our threshing and portable engines, full description of which will be seen on pages 91, 92, 93, etc., etc.

HORSE POWERS

are illustrated on pages 80 to 86.

The Farquhar Dingee is the highest priced and best. The Pennsylvania and Climax are somewhat cheaper, and are very good and popular powers.

THE FARQUHAR RAKE SEPARATOR.

The cut on the following page will illustrate the Farquhar Rake Separator, which has a capacity of from 20 to 100 bushels of wheat per hour, according to the size. Where machines of greater capacity are desired, we would recommend the Farquhar Vibrator, shown on pages 65 and 67.

In addition to the foregoing particulars, we would call attention to

THE FAN OR CLEANER

with self-regulating blast, the result of long-continued and expensive experiments. Its movement is easy and the operation perfect, delivering the grain cleaner than it can be made by any hand fan into a measure or bag as desired. Millers pay from one to three cents more per bushel for Wheat cleaned on the Farquhar Separator, because so free from impurity. The grain is separated upon a new principle by means of rollers and comb^{ic} which cannot be choked and are durable.

SELF-REGULATING BLAST.

We have also improved this important feature of our machine, securing more perfect control and adaptation to all kinds of grain, and believe the fan, as now made, is the most perfect and durable in existence.

THE SEPARATING PARTS

are constructed of counterbalanced rakes, which thoroughly shake up and separate the grain from the straw.

See Price List, pages 68 to 70.

FARQUHAR'S RAKE SEPARATOR OR THRESHER AND CLEANER WITH MOUNTED HORSE POWER COMPLETE.

Was awarded the Medal and Highest Diploma at the Centennial, and also at the Paris Exposition.

Warranted one of the most Durable, Lightest of Draft, and most Efficient in the World.

The above cut shows the machine geared with the Climax power, and ready for work, with Tailing Elevator and Straw Stacker.

It Threshes, Separates, Cleans, and Bags ready for market; wastes no grain; is strong, light, and durable.

FARQUHAR VIBRATOR THRESHING MACHINE.

For threshing upon an extensive scale, we claim that the Farquhar Vibrator has no equal in existence. The testimonials in its favor are so strong as to be almost incredible. It is acknowledged to thresh more rapidly, saving all kinds of grain and delivering it in better condition than any other machine. It will thresh all kinds of grain in the most perfect manner, cracking none and wasting none. Combined with the Farquhar Ajax Portable Engine it makes a magnificent outfit, and with the Farquhar-Dingee Power, the best Horse Power machine made for extensive threshing; but for moderate crops, 500 bushels of wheat or less per day, the Farquhar Rake Separator, as illustrated on preceding pages, has no superior.

- 1.—The roof is so arranged as to thoroughly protect it from the weather.
- 2.—The front wheels pass under the sills, thus admitting a short turn.
- 3.—The concave is so arranged that the threshed grain passes through to the conveyor below, preventing its being cut.
- 4.—The winged beater is so situated as to effectually stop all flying grain.
- 5.—The straw passes from the beater over an open slat-work bottom, so managed as thoroughly to shake out every grain.
- 6.—The grain is delivered to the fan by an iron conveyor which extends back under the concave to the shoe of the fan. The outer end being provided with a coarse sieve which prevents the rough stuff and straw falling on the riddles of the fan.
- 7.—The machine is counterbalanced and stands firm without bracing.
- 8.—The separating parts are of great width and capacity, insuring the preservation of all the grain.
- 9.—It is provided with the Farquhar celebrated patent elevator, which is durable and never chokes.
- 10.—The spikes and shafts are made of steel; the cylinder wrought iron, and all parts of the machine fitted up and finished in the best possible manner. It costs less for repairs than any machine made.

A great advantage of the Vibrator is that for \$50 a clover-hulling attachment may be added at any time, making it worth \$300 extra as a clover huller.

This attachment is no experiment; hundreds of them are in use doing as good work as a regular clover huller, and is attached for use in a few minutes.

The Farquhar Vibrator is especially adapted to threshing wheat, oats, rye, barley, flax, timothy seed, and with the attachments, clover seed and rice.

For further particulars, see pages 55 to 62, describing the construction of the Farquhar Separators.

THE FARQUHAR VIBRATOR.

UNIVERSALLY PRONOUNCED THE BEST THRESHING MACHINE IN EXISTENCE.

SIMPLE, DURABLE, ECONOMICAL. UNEQUALLED IN ALL KINDS OF GRAIN,

OATS, WHEAT, BARLEY, RYE, FLAX, OR RICE.

Price of Farquhar Vibrator Thresher.

No. 14—Vibrator, cylinder 36 inches by 22½ inches (over spikes), separator 50 inches wide, mounted on 4-wheel wagon, with 18-foot hinged stacker and hoisting rig, Farquhar's patent tailing elevator, with feeder's platform and side table, all belts (except main drive belt from power or engine to cylinder), sieves for wheat, oats, barley, and cheat screen, wrench, oil can, and usual extras, whiffletrees and neck-yoke. Capacity, 100 to 150 bushels wheat, and 150 to 250 bushels oats per hour.....	\$ 440
No. 12—Vibrator, cylinder 32 inches by 22½ inches (over spikes), separator 45 inches wide, mounted on 4-wheel wagon, complete as above. Capacity, 85 to 120 bushels wheat, and 120 to 200 bushels oats per hour.....	420
No. 10—Vibrator, cylinder 28 inches by 22½ inches (over spikes), separator 41 inches wide, mounted on 4-wheel wagon, complete as above. Capacity, 60 to 80 bushels of wheat, and 90 to 100 bushels oats per hour.....	400
No. 8—Vibrator, cylinder 24 inches by 22½ inches (over spikes), separator 37 inches wide, mounted on 4-wheel wagon, complete as above. Capacity, 30 to 50 bushels of wheat, and 60 to 100 bushels oats per hour.....	360
If vibrators are wanted on sills, not mounted on wagons, deduct from above price.....	45
Extra for side gear.....	25
If stacker not wanted deduct.....	30

Price of Farquhar Vibrator Connected with Engines.

No. 14—Vibrator, as described above, with stack and all extras, with 10 horse Ajax engine, portable, complete as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	\$1060
No. 14—Vibrator, complete as above, with 12 horse Ajax portable engine, (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	1135
No. 12—Vibrator, complete as above, with 10 horse Ajax portable engine, (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	1040
No. 10—Vibrator, complete as above, with 8 horse Ajax portable engine, (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	930
No. 10—Vibrator, complete as above, with 10 horse Ajax portable engine (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	1015
No. 8—Vibrator, complete as above, with 8 horse Ajax portable engine (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	880
No. 8—Vibrator, complete as above, with 6 horse Ajax portable engine (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	850

FARQUHAR LOW-DOWN VIBRATOR--RIGHT SIDE.

It is much lower than any of the old style on the market, being only six feet high from the floor. This low height, to all practical threshermen, will present itself as an immense advantage in moving from one place to another, especially in hilly countries.

The cylinder being four feet eight inches from the floor, threshermen have much less labor pitching bundles on to the table than if the cylinder were seven feet high, as is generally the case. Much more work can be done by the same men. The feeder's platform is very low, thus enabling the feeder to get up and down easily and quickly.

FARQUHAR LOW-DOWN VIBRATOR--Left Side.

The Low-Down Vibrator has only two belts; runs with much less power than any other machine on the market; has no endless apron to wear out every year; wastes no grain, and we sell it under a warrantee that it does much better than most machines and is surpassed by none.

Our customers uniformly report, in tests made last year, that the strong point of our machine is its GRAIN-*SAVING* qualities. All of the principals which are essential in a good Separator are included in this machine, and nearly every fault which can be found with the numerous Separators and Vibrators on the market, has been avoided. It is simple and very strong; there is no liability of breakage of small parts. The machine is so built that it will last many seasons, as there is nothing to play it out.

SKELETON VIEW —OF— FARQUHAR LOW-DOWN VIBRATOR.

Showing position of shaker or straw agitators, also cylinder, grain table, fan, and various other working parts.

Price of Farquhar Low-Down Vibrator Thresher.

No. 14—Vibrator, cylinder 36 inches by 22½ inches (over spikes), separator 52 inches wide, mounted on 4 wheel wagon, with 18-foot hinged stacker and hoisting rig, Farquhar's patent tailing elevator, with feeder's platform and side table, all belts (except main drive belt from power or engine to cylinder), sieves for wheat, oats, barley, and cheat screen, wrench, oil can, and usual extras, whiffletrees and neck yoke. Capacity, 100 to 150 bushels wheat, and 150 to 250 bushels oats per hour.....	\$440
No. 12—Vibrator, cylinder 33 inches by 22½ inches (over spikes), separator 49 inches wide, mounted on 4-wheel wagon, complete as above. Capacity, 85 to 120 bushels wheat, and 120 to 200 bushels oats per hour.....	430
No. 10½—Vibrator, cylinder 30 inches by 22½ inches (over spikes), separator 45 inches wide, mounted on 4-wheel wagon, complete as above. Capacity, 75 to 100 bushels wheat, and 110 to 175 bushels oats per hour.....	420
No. 10—Vibrator, cylinder 27 inches by 22½ inches (over spikes), separator 41 inches wide, mounted on 4-wheel wagon, complete as above. Capacity, 60 to 80 bushels of wheat, and 90 to 100 bushels oats per hour.....	400
No. 8—Vibrator, cylinder 24 inches by 22½ inches (over spikes), separator 35 inches wide, mounted on 4-wheel wagon, complete as above. Capacity, 30 to 50 bushels of wheat, and 60 to 100 bushels oats per hour.....	360
If vibrators are wanted on sills, not mounted on wagons, deduct from above price.....	45
Extra for side gear.....	25
If stacker not wanted deduct.....	30

Price of Farquhar Low-Down Vibrator Connected with Engines.

No. 14—Vibrator, as described above, with stack and all extras, with 10 horse Ajax engine, portable, (complete as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	\$1060
No. 14—Vibrator, complete as above, with 12 horse Ajax portable engine, (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	1135
No. 12—Vibrator, complete as above, with 10 horse Ajax portable engine, (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	1040
No. 10½—Vibrator, complete as above, with 8 horse Ajax portable engine, (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	950
No. 10½—Vibrator, complete as above, with 10 horse Ajax portable engine, (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	1035
No. 10—Vibrator, complete as above, with 8 horse Ajax portable engine, (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	930
No. 10—Vibrator, complete as above, with 10 horse Ajax portable engine, (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	1015
No. 8—Vibrator, complete as above, with 8 horse Ajax portable engine (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	880
No. 8—Vibrator, complete as above, with 6 horse Ajax portable engine (as described on page 95,) both mounted on wagons, with main belt and everything complete ready for work.....	850

FARQUHAR VIBRATOR THRESHING MACHINE, WITH
TRACTION ENGINE ATTACHED ON THE ROAD.

FARQUHAR VIBRATOR THRESHING MACHINE, WITH
FARQUHAR DINGEE HORSE POWER GEARED READY FOR WORK.

Price of Farquhar Vibrators with Horse Power.

No. 12—Vibrator, as described above, with stacker and all extras, with 8-horse Farquhar Dingee power (as described on page 82), connected by gear on main belt as desired. Both mounted on wagons, and everything complete ready for work, making the best horse-power outfit in existence.....	\$640
No. 12—Vibrator complete, as above, with 10-horse Farquhar Dingee power (as described on page 82), connected by gear or main belt as desired. Both mounted on wagons, complete ready for work	650
No. 10—Vibrator complete, as above, with 6 to 8 horse Climax power (as described on page 81), connected by gear or main belt as desired. Both mounted on wagons, complete ready for work...	560
No. 10—Vibrator complete, as above, with 8-horse Farquhar Dingee power (as described on page 82), connected by gear or main belt as desired. Both mounted on wagons, complete ready for work.....	620
No. 8—Vibrator complete, as above, with 4 to 6 horse Climax power (as described on page 81), connected by gear or main belt as desired. Both mounted on wagons, complete ready for work... If wagon is not wanted deduct \$45 for either power or separator. 100 feet Gum Belt furnished with each belt power outfit.	510

Price List of Farquhar Rake Separator without Power.

No. 2—Rake Separator, 30-inch cylinder for 6 horses, capacity 50 to 75 bushels of wheat or 75 to 125 bushels of oats per hour—weight 2200 lbs., mounted on 4-wheel wagon with tailing elevator, feeder's platform, side table, all belts (except main drive belt, from power or engine to cylinder), wrench, oil-can, and usual extras.....	250
No. 2—Rake Separator, as above, with Folding Straw Stacker extra.....	275
No. 3—Rake Separator, 26-inch cylinder for 4 to 6 horses, capacity 30 to 50 bushels of wheat or 40 to 100 bushels of oats per hour—weight 2000 lbs., mounted on 4-wheel wagon, complete as above	230
No. 3—Rake Separator, as above, with Folding Straw Stacker extra.....	255
No. 4—Rake Separator, 22-inch cylinder for 2-horse railway or 4-horse sweep power, capacity 20 to 40 bushels of wheat or 30 to 60 bushels of oats per hour—weight 1800 lbs., mounted on 4-wheel wagon, complete as above.....	210
No. 4—Rake Separator, as above, with Folding Straw Stacker extra.....	230
When above Rake Separators are wanted not mounted on wagons, deduct from above prices..	40
For No. 4 Rake Separator on 2-wheel truck, deduct from price of machine on 4-wheel wagon	20
Extra for gear or belt to connect with power.....	20

Price of Farquhar Rake Separator with Engines.

No. 2—Rake Separator, as described above, with 6 horse Ajax portable engine, (as described on page 95,) with main belt—both mounted on wagons, and everything complete ready for work, making a perfect steam power outfit.....	750
No. 2—Rake Separator with 8 horse Ajax portable engine, both mounted on wagons, complete ready for work, as described above, with main belt.....	770
If Separator is wanted not mounted on wagon, deduct.....	40
If Hinged Stacker is wanted, add.....	25

No. 3—Rake Separator, as described above, with 5 horse Ajax portable engine (as described on page 95), with main belt—both mounted on wagons, and everything complete ready for work.....	\$ 7 00
No. 3—Rake Separator, with 6 horse Ajax portable engine, both mounted on wagons, and everything complete ready for work, as described above, with main belt.....	7 30
No. 3—Rake Separator, with 8 horse Ajax portable engine, both mounted on wagons, complete ready for work, as described above, with main belt.....	7 60
No. 3—Rake Separator, mounted on 4-wheel wagon, with 8 horse vertical engine mounted on 2 wheels (as described on page 97), complete ready for work, as above, with main belt.....	6 75
If Separator is wanted not mounted on wagon, deduct.....	40
If Hinged Stacker is wanted, add.....	25
No. 4—Rake Separator, as described above, with 4 horse Ajax portable engine (as described on page 95), with main belt—both mounted on wagons and everything complete ready for work.....	6 55
No. 4—Rake Separator with 5 horse Ajax portable engine, both mounted on wagons, complete ready for work, as described above, with main belt	6 80
No. 4—Rake Separator mounted on 4 wheel wagon, with 6 horse Vertical engine mounted on 2 wheels, (as described on page 97,) complete ready for work, as above, with main belt.....	5 95
No. 4—Rake Separator mounted on 4 wheel wagon, with 8 horse Vertical engine mounted on 2 wheels, with main belt, and complete ready for work, as above.....	6 55
If Separator is wanted not mounted on wagon, deduct.....	40
If Separator is wanted on 2 wheel truck instead of on wagon, deduct.....	20
If Hinged Stacker is wanted, add.....	20

Price of Farquhar's Rake Separators with Horse Power.

No. 2—Rake Separator, as described above, with 6 to 8 horse Climax power (as described on page 81), connected by gear on main belt 100 feet long, as desired, both mounted on wagons, and everything complete ready for work, making a perfect horse power outfit.....	4 25
No. 2—Rake Separator with 8 to 10 horse Climax power, both mounted on wagons, complete ready for work, as described above.....	4 55
No. 2—Rake Separator, as above, with 8-horse Farquhar Dingee power (as described on page 82), both mounted on wagons, complete ready for work, as described above.....	4 70
If wagon is not wanted for Separator, deduct \$40, and for power.....	45
If Hinged Stacker is wanted, add.....	25
No. 3—Rake Separator, as described above, with 4 to 6 horse Climax power (as described on page 81), connected by gear on main belt, as desired, both mounted on wagons, and everything complete ready for work.....	3 90
No. 3—Rake Separator with 6 to 8 horse Climax power, both mounted on wagons, complete ready for work, as described above.....	4 05
If wagon is not wanted for Separator, deduct \$40, and for power.....	45
If Hinged Stacker is wanted, add.....	25

No. 4	Rake Separator with 3 to 4 horse Climax power, both mounted on wagons, connected by gear or main belt as desired, and everything complete ready for work, as above described.	350
No. 4	Rake Separator with 4 to 6 horse Climax power, both mounted on wagons, complete ready for work, as above described.	370
No. 4	Rake Separator, as above, mounted on 4-wheel wagon — with 4-horse Pennsylvania down power (as described on page 83), with all connections, complete ready for work.	325
No. 4	Rake Separator, mounted on 4-wheel wagon with 6-horse Pennsylvania down power, as described above, all complete ready for work.	340
	If Separator is wanted not mounted on wagon, deduct.	40
	If Separator is wanted on 2-wheel truck instead of on wagon, deduct.	20
	If railway power is wanted not mounted on wagon, deduct.	50
	If railway power is wanted on 2-wheel truck instead of on wagon, deduct.	35
	If Climax powers are wanted not mounted, deduct for wagons as follows — for 3 to 4 horse, \$40, and for 4 to 6 horse.	45
	If Hinged Stacker is wanted, add.	20
	Extra band wheel and block enabling geared horse power to be used with belt, \$5 net extra.	

FARQUHAR OVERSHOT THRESHER AND WINNOWER FOR RAILWAY POWER.

SEPARATOR WITH RAILWAY POWER.

This Separator is especially adapted to the 2-horse railway power, or 4-horse lever power, and is remarkably simple, light of draft, and efficient. It will thresh and clean from one to two hundred bushels of wheat, or twice the amount of oats per day, and without waste, and is the only Overshot Separator that makes the grain perfectly clean.

Price of No. 2½ Overshot Separator for 2-horse tread or 3 to 4 horse lever power.	195
Price of No. 2½ Overshot Separator for 2-horse tread or 3 to 4 horse lever power on wagon.	235
Price of 2-horse railway power down, and No. 2½ Overshot Separator down, wrenches, oil pan, etc.	350
Complete machines, as above, both mounted on wagons.	440

THE OVERSHOT SEPARATOR.

Is lighter of draft than the Undershot, and is especially adapted to the railway or tread-horse power. Our Overshot Separator is now in all respects equal to the Undershot, being supplied with roller fan, chain belts, counterbalanced rake, etc.

For prices of Farquhar railway horse powers, see page 86.

LOW DOWN CHAMPION THRESHING MACHINE.

It is the lowest machine on the market, being only five feet, four inches from the floor to the top of the deck.

The Cylinder is the lowest, being only four feet, four inches from the floor to the cylinder box.

The feeder's platform is the lowest, being only twenty-three inches from the floor.

It is the lightest machine made, weighing fully 1,000 to 1,500 pounds less than any of the same size in the market.

This cut shows the left hand side of our **Low Down Machine**, and shows the manner in which it is belted, saving a large amount of friction on the bearings and boxes. The pulleys for belts on cylinder shaft are on one end of the shaft. The belts which drive the separator and fan pull in opposite directions from the main belt to the engine, thereby greatly reducing the friction on the cylinder boxes. The belt on the shaker, or agitator shaft, which drives the stacker, pulls in an opposite direction to the one running on the shaker, or agitator shaft, to the cylinder, thus doing away with a large amount of friction on the shaker shaft and boxes.

This cut plainly shows the **belt guide**, which every good thrasher knows the value of. It also shows the stacker folded and ready to move. The windlass shaft upon which the stacker ropes are wound is supported by **bracket boxes**. On the end of the windlass shaft is fastened the gear wheel into which the smaller pinion meshes. This revolves upon a stud (or short shaft) projecting from the **bracket box**. The handle is attached to the pinion, the catch or dog with weighted end, engages with ratchet wheel immediately inside of the large gear wheel and locks the windlass at any point desired. One man can easily raise and lower the stacker with one hand. See page 74 for prices.

"LOW DOWN CHAMPION" -- Right Side.

THE LOWEST MACHINE ON THE MARKET.

This cut shows the right hand side of our **Low Down** Machine, with the folding feed tables, feeder's platform, and band cutter's stand. We wish to call your attention particularly to the ball and socket arrangement for front axle. It gives ample freedom of movement without racking the machine while moving over rough roads. It is also a great advantage in setting, as it is only necessary to level the rear axle. This ball and socket arrangement is a new feature in the mounting of threshing machines, and has been sufficiently tested to prove its great superiority over the old-fashioned bolster plate.

The style of the elevator used on the **Low Down** Machine allows the rear wheels to track with the front, as the rear wheels are under the elevator instead of outside of it. We use our improved elevator on the **Champion**, which is acknowledged to be the best.

Folding feed tables have been provided with our **Low Down** Machines, which are not taken off in moving from place to place, but are simply folded out of the way, saving time in getting ready to move and again in getting ready to thresh.

The band cutter stands are arranged to go on the foot board. All of the cylinders in these machines have 12 bars. Three full concaves and one blank are furnished with each machine, enabling the thrasher, by using all the concaves, to thresh clean the toughest grain. The blank concave is to be used when the grain is in good condition, instead of one that is full spiked.

Skeleton View of Low Down Champion.

Showing position of shaker or straw agitators, also cylinder, grain table, fan and various other working parts. The rear or separator of this machine is 19 inches wider than the length of the cylinder, making a flare of $9\frac{1}{2}$ inches on each side. This gives the cylinder a chance to spread and thin out the straw to the full width of the machine, thus insuring a perfect separation of the grain from the straw.

Price of Farquhar Low Down Champion.

No. 9—Machine, 24-inch cylinder and 43-inch separator, mounted on 4-wheel wagon, with 18 feet folding hinged stacker and hoisting rig, Farquhar's patent tailings elevator, with feeder's platform and side table, all belts (except main drive belt from power or engine to cylinder) with all sieves for wheat, oats, &c., wrench, oil can and usual extras, whiffle-trees and yoke. Capacity 30 to 50 bushels of wheat, and from 50 to 100 bushels oats per hour.....	\$ 370 00
No. 11—Machine, 27-inch cylinder and 46-inch separator, mounted on 4-wheel wagon, complete as above. Capacity 60 to 100 bushels wheat, and 100 to 150 bushels oats per hour.....	410 00
No. 13—Machine, 30-inch cylinder and 49-inch separator, mounted on 4-wheel wagon, complete as above, capacity 80 to 120 bushels wheat, and 120 to 180 bushels oats per hour.....	430 00
No. 15—Machine, 33-inch cylinder and 52-inch separator, mounted on 4-wheel wagon, complete as above, capacity 100 to 140 bushels wheat, and 150 to 200 bushels oats per hour.....	450 00
If machines are wanted on sills, not mounted on wagons, deduct from above price.....	45 00
Extra for Side Gear.....	25 00
If stacker not wanted deduct.....	30 00

Price of Farquhar Low Down Champion Connected with Engine.

No. 9—Machine, complete as above, with 6-horse power Ajax portable engine, as described on page 95, both mounted on wagons, with main belt and everything complete ready for work.....	\$ 860 00
No. 9—Machine, complete as above, with 8-horse power Ajax portable engine, as described on page 95, both mounted on wagons, with main belt and everything complete ready for work.....	890 00
No. 11—Machine, complete as above, with 8-horse power Ajax portable engine, as described on page 95, both mounted on wagons, with main belt and everything complete ready for work.....	940 00
No. 13—Machine, complete as above, with 8-horse power Ajax portable engine, as described on page 95, both machines mounted on wagons, with main belt and everything complete ready for work.....	965 00
No. 13—Machine, complete as above, with 10-horse power Ajax portable engine, as described on page 95, both machines mounted on wagons with main belt and everything complete ready for work.....	1,050 00
No. 15—Machine, complete as above, with 10-horse power Ajax portable engine, as described on page 95, both machines mounted on wagons, with main belt and everything complete ready for work.....	1,075 00
No. 15—Machine, complete as above, with 12-horse power Ajax portable engine, as described on page 95, both mounted on wagons, with main belt everything complete ready for work.....	1,145 00

PLAIN THRESHERS.

UNDERSHOT AND OVERSHOT.

We make several styles of open or plain Threshers, which are unsurpassed for threshing wheat, oats, rye, buckwheat, rice, or any other kind of grain. They are extensively in use and are very popular where known.

FARQUHAR'S PATENT IRON
THRESHING MACHINE, No. 1.

The Thresher is constructed precisely as in the Separator with iron sides, wrought iron cylinder and concave bars backed with wood and spikes of the finest steel. They are either belted or geared, the latter having STEEL PINIONS on the cylinder shaft. The pulleys of the belted machine are covered with leather to prevent belts from slipping. THE SHAKER is driven by a crank secured to the frame of the machine. The vibrating part is light and strong and separates in a very thorough manner. The shaker can be detached from the machine in a moment and folds up in shipping.

PRICE LIST OF FARQUHAR'S WROUGHT IRON THRESHERS.

30-inch Thresher for belt, with patent shaker and extras, wrench, oil can, spikes, etc.	\$75.00
30-inch Thresher, without shaker	60.00
30-inch Thresher, with <i>side gear</i> , patent shaker and extras, wrench, oil can, spikes, etc.	95.00
Price of patent shaker for 30-inch Thresher	15.00
25-inch Thresher for belt, with patent shaker and extras	70.00
25 " " without shaker	57.00
25 " " side gear, with patent shaker and extras	90.00
25 " " without shaker	77.00
Price of patent shaker for 25-inch Thresher	13.00
22-inch Thresher for belt, with shaker	63.00
22 " " " without shaker	52.00
22 " " side gear, with shaker and extras	80.00

PRICE LIST OF FARQUHAR'S PATENT IRON THRESHERS WITH HORSE POWERS.—NOT MOUNTED.

(SHAFTS AND PINIONS STEEL.)

30-inch Thresher, as above, with patent shaker with belt or gear and 4 to 6 horse Climax power, complete	\$190.00
Same as above, with 6 to 8 horse Climax power	200.00
25-inch Thresher, as above, with belt or gear, with shaker and 4 to 6 horse Climax power, complete	180.00
Same as above, with 3 to 4 horse Climax power	165.00
22-inch Thresher, as above, with belt or gear, with shaker and 3 to 4 horse Climax power, complete	155.00
22-inch Thresher, as above, without shaker	144.00

All complete machines are provided with belt or geared connections, as desired, and with monkey wrenches, oil-cans, extra spikes, etc. Geared machines have steel pinions.
If Pennsylvania powers are wanted, price same as above.

PLAIN OVERSHOT THRESHERS FOR RAILWAY POWERS.

These machines are especially designed for use with railway or other light horse powers. They do not thresh quite so fast as the undershot machines, and always run by belt. They are very quickly and easily set and put in operation. Have leather-covered pulleys, steel shaft, and are suited to small crops.

30-inch machine, complete, with shaker and extras	\$65.00
30 " " " without shaker	55.00
25 " " " with shaker and extras	60.00
25 " " " without shaker	50.00
22 " " " with shaker and extras	55.00
22 " " " without shaker	47.00
30 " Thresher, as above, complete, with shaker, main belt, and extras, and 2-horse railway power	220.00
30 " " " with 3 to 4 horse Climax power	160.00
30 " " " " 4 to 6 " " "	175.00
30 " " " " 4 to 6 " Pennsylvania power	175.00
25-inch Thresher, as above, complete, with shaker, main belt, and extras, and 1-horse railway power	192.00
25-inch Thresher, as above, with 3 to 4 horse Climax power	152.00
22 " " " complete, with shaker, main belt, and extras, and 1-horse railway power	185.00
22-inch Thresher, as above, with 2 to 3 horse Climax power	140.00

THE COMBINED THRESHER AND SEPARATOR

(OR CLEANER) FOR RICE,

Is in general appearance like the machine for threshing and separating wheat, but is built stronger to sustain the greater strain, and the spikes are differently shaped. There is more space between the concave and cylinder and less speed of cylinder to avoid cracking the kernels; it is ample, however, to thoroughly thresh out the grain from the straw.

THE SEPARATING AND CLEANING

is done in the same manner as in the wheat machine, delivering the rice perfectly clean ready for the hulling mill. It is in every respect a first-class machine, and gives perfect satisfaction. Every machine is provided with an improved Elevator to carry all unthreshed heads, etc., back to the thresher.

For price list of Rice Separator alone, or with steam engine and horse-powers, see pages 66 to 68, adding \$25.00 for cost of extra iron plating and pulleys.

Farquhar's Rice Separator was awarded the Medal at the Centennial.

REPORT OF JUDGES.

For great strength, simplicity, and efficiency, and for the following specialties: Peculiar form of drum and concave, *teeth of which have rounded backs and beveled edges* in order to avoid breaking grain; for vibrating ribbed iron carrier and mode of separating grain from straw and clearing it effectually of all impurities ready for the mill.

FARQUHAR VIBRATOR RICE SEPARATOR

IS RECOMMENDED AS THE BEST RICE THRESHER IN USE.

DOES NOT CRACK THE GRAIN, THRESHES CLEAN FROM THE STRAW, AND DELIVERS
WITHOUT WASTE, CLEAN OF ALL FILTH, READY FOR THE MILL.

The Farquhar No. 3 Rake Separator is a first-class machine for small crops, and somewhat cheaper than the Vibrator.

PLAIN THRESHER, FOR RICE,
WITH PATENT SHAKER
TO SEPARATE STRAW AND GRAIN.

A STRONG WROUGHT-IRON CYLINDER
THRESHER,

Made like the threshing part of the Separator. The Shaker, as its name signifies, shakes up the straw and permits the grain to descend through perforations in the bottom, but it does not clean out the chaff. With this machine it is necessary to have a Fan. (See Grain Fans, following page.)

We also furnish these Threshers without the shaker to those who desire them so. But we recommend all to use the shaker, as it saves the labor of at least two hands. To induce purchasers to take the machine complete, we put the shaker and attachments at about cost.

We have long made the manufacture of Rice Threshing Machines a specialty, and claim that the Farquhar Rice Separators and Threshers will do better work than any other in the market.

For price list of plain Rice Threshers (same as wheat threshers), see pages 75 and 76.

HORSE POWERS.

The Horse Power is one of the most important implements, and probably the most difficult to keep in order; too much care, therefore, cannot be used in selecting the very best. We have long made the manufacture of Horse Powers a specialty, and can safely recommend our IMPROVED IRON-GEARED POWERS to be all that we claim for them.

Farquhar's Patent Climax Triple-Geared Powers.

Farquhar's Climax Horse Power for threshing, ginning, and general farm use, ranks among the best, being the result of many years' labor and the expenditure of thousands of dollars in experimenting. It is remarkable for its light draft, simplicity, great strength, and durability. It is fitted up with as much care as a piece of cotton machinery or steam engine, and will last as long. The rule "the best is the cheapest," applies with special force to Horse Powers. By one breakage, a farmer frequently loses as much as the power costs. A cheap power is short-lived and but a continual source of vexation, besides requiring one or two extra horses to overcome the friction.

We have placed the price of our "Climax" as low as a first-class Power can be made, and have faith that the intelligence and good sense of the American farmers will enable them to decide between a really excellent and an inferior article. After a careful examination of the leading Horse Powers in use, *we claim, without fear of successful contradiction, that "The Farquhar Horse Powers" are the most perfect machines for the transmission of power that have ever been brought before the public.*

The Climax power is Triple-geared, the strain being divided so as to prevent breakage or wear.

The gearing is all connected by one strong iron frame, and there can be no derangement or decay.

The levers are so arranged that the strain of the team is thrown upon the iron stay-rods or braces, and can be taken off or put on in a moment, without loosening a bolt.

All of the boxes are self-oiling, and the whole machine is constructed with the precision of clock-work.

It is strictly portable, it may be moved and set ready for use in fifteen minutes by ordinary farm laborers.

The pinions are large and made of steel to prevent wear or friction. As steel pinions do not wear, these Powers always run smooth and light.

Medals and Diplomas of Merit were awarded A. B. Farquhar at the Centennial for Horse Power.

CLIMAX HORSE POWERS MOUNTED ON WAGON.

Wheels do not have to be taken off to use—levers pass over. Can be set up in twenty minutes, ready for work. Powers mounted on wagon have a driver's seat with place to carry levers, braces, shaft, pulley block, and everything belonging to the power, and are furnished with single and double trees and neck yoke—a complete outfit. They are *quickly set* for use, requiring no lifting.

PRICE LIST OF FARQUHAR'S PATENT CLIMAX TRIPPLE-GEARED
HORSE POWERS.

No. of Power.	No. Horses suited for.	No. of Levers.	Down Powers weight, lbs.	Price of Down Power.	Price on 2 wheels.	Price on Wagon.	Weight on Wagon.
A 1 . .	10	5	2000	\$150.00	\$175.00	\$195.00	2400
A 2 . .	8 to 10	4	2000	140.00	165.00	185.00	2400
A 3 . .	6 " 8	4	1900	110.00	135.00	155.00	2200
A 4 . .	4 " 6	4	1650	95.00	120.00	140.00	1850
A 5 . .	3 " 4	4	1400	80.00	100.00	120.00	1600
A 6 . .	2 " 3	2	1200	75.00	95.00	115.00	1400

The shaft makes ninety revolutions to one of team, or about two hundred per minute, in all of these powers. Each power is furnished with shaft, band-wheel, and pulley block, or if for geared machine three extra shafts and connections in place of band-wheel and pulley block.

At an extra charge of five dollars, all powers for geared machines are furnished with band-wheels and fixtures for driving corn-shellers, circular saws, etc.

Farquhar's Patent Climax Tripple-Geared Powers are warranted among the best, strongest, *lightest draft*, most durable, and most economical in use.

All persons buying threshing machines for merchant work should get the Climax Power.

TO SET UP AND RUN THE MOUNTED OR DOWN POWER.

Let the wheels into the ground five to ten inches, hook the stay braces into the eyes provided for them on cast iron socket, place the end of wood piece of brace in the place provided for it on the other socket, thus forming the letter V, the point of which rests upon the ground and is secured by good stakes. Put on levers, etc., same as for down power.

Couple on the shaft, taking care that the pulley block is placed so the shaft will lay true and square in the box. When properly adjusted, secure the block by one stake at each end, and two on the side away from the power. If the power has a band-wheel, open a trench sufficient to clear the wheel and belt, and always when possible set the power so the *slack belt* will run on the "idle" pulley, also bore a hole and put a pin in the stake at end opposite to idle pulley, to keep it from raising.

For a "down power" put in good broad stakes at corners of frame; two of them should be hooked or have pins and be placed on the corners that are inclined to raise.

Do not use a stable door with a chain or hasp hanging down for a driver's platform. My Powers are warranted, and I seriously object to replacing, gratis, gearing broken in this way.

FIG. 2.—IRON WORK TRIPLE-GEARED HORSE POWER,

Showing plan of construction. The strain being divided among so many cogs, is the secret of its strength and durability.

In putting this power together, be careful to place the marked cogs of the spur wheels, as shown by the arrow-head, into the center pinion, so as to have an equal number of cogs of the pinion between each marked cog of the wheel. This is necessary to make the master wheel gear in properly.

FARQUHAR-DINGEE HORSE POWER.

In addition to the Climax Horse Power, referred to above, we offer the latest improved Dingee Powers, of which we make three sizes, always mounted on four-wheel trucks.

This double-geared horse power is beyond question the most perfect in use and has been adopted by the largest Threshing Machine Manufacturers in the West.

It is remarkable for durability, ease of draft, and freedom from breakage. It is claimed as the lightest draft power in existence and is so simple that any boy can manage it. It is adapted to from six to twelve horses, and may be arranged to run any required speed. The power is speeded about one hundred, unless otherwise ordered. The Society for the Prevention of Cruelty to Animals should certainly award a medal to Mr. Dingee for the inventing of this power. It is thoroughly protected by patents and is warranted the best made in this country. Thousands of them are in use, and so far as I have heard not a single wheel has broken.

PRICES OF FARQUHAR-DINGEE POWERS.

8-Horse Power on Four Wheels, complete	\$200.00
10 " " " "	210.00
12 " " " "	220.00

PENNSYLVANIA HORSE POWER

IS ONE OF THE LIGHTEST RUNNING AND MOST DURABLE HORSE POWERS IN USE.

THE PINIONS ARE MADE OF STEEL, AND WILL NOT WEAR.

This power is largely used among Pennsylvania farmers. It is light of draft, durable, and simple in construction, containing only two large cog-wheels and two pinions. The master wheel gears into a pinion upon shaft of bevel wheel, and the bevel wheel engages with pinion upon end of line shaft, and is held in gear by a roller or traveler. They are finished complete, ready for work. The speed of band wheel is 80 revolutions to one of horses, and is adapted to either geared or belt machines.

PRICE LIST OF PENNSYLVANIA HORSE POWERS.

Price of 6 to 8 Horse Pennsylvania Power, Down,	-	-	-	-	\$110.00	-	-	Weight, 1500 lbs.
" 4 to 6 "	"	"	"	"	95.00	-	-	" 1400 "

EUREKA COIL SPRING OR EQUALIZER, FOR GEARED THRESHERS.

SAVES POWER, GEARING, AND HORSES.

Any one familiar with horse power knows that the draft of the horses is very irregular. The thresher cylinder is a heavy body, and, running twenty-five or thirty times faster than the horses, must have immense leverage over them which can only be controlled by this device.

The Patent Eureka Coil Spring, being a reservoir of power, utilizes every jerk and gives out every pound of power it receives; thus the cylinder is moved by an *elastic and uniform pressure*, and *absolutely secures the gearing from breakage*.

EXPLANATION OF ADVANTAGES.

In case of a choke making the cylinder lose speed, the momentum of the horse power will cause the spring to wind up instantly in proportion to the resistance, and this power which is stored up will be exerted on the cylinder, making it instantly regain its former velocity without jerking the horses. In other words, the extra strain comes on the spring instead of on the horse's shoulders.

Price of Spring Box and Coupling, ready to attach to tumbling rod of horse power, \$12.00.

HORSE POWER JACKS.

We do not recommend the use of Jack when it can be avoided, for the reason that a direct connection between the power and the machine, either by belt or rod, is the most economical in power. But where it is necessary to increase the speed of the power or to save digging pit for the large band-wheel, it is necessary to use the Jack, when it answers an admirable purpose.

SPUR GEAR, TWO-SPEED JACK, IRON FRAME.

Is suited to any kind of horse power, and is strong, runs easy, has self-oiling, anti-friction boxes, and *two speeds*, one suited for threshing, the other for ginning.

BEVEL JACK.

Where it is desired to run the belt at a right angle to the power, we furnish a Bevel Jack with gear set in iron frame, self-oiling, anti-friction boxes, and made in the best style.

FARQUHAR'S UNIVERSAL JACK.

We recommend this as the best Jack in use, as the wheel may be set in any position, right or left, vertical or horizontal.

Price, complete—	Spur Gear, Two-Speed Jack.....	\$18.00
" "	Bevel Gear, Single-Speed Jack.....	12.00
" "	Farquhar's Universal Jack.....	18.00

HORSE POWER SHAFT COUPLINGS.

This cut represents an improved safety coupling for tumbling rods used in geared machines. They present on the outside a smooth, round surface, and will not wrap straw or catch clothing.

Price of Universal Safety Coupling, per set.....	\$1.25
" Farquhar's Patent Knuckle-Joint Coupling, per set	.80
Wrought Iron Shafting fitted for couplings, 12 cents per foot.	

Farquhar's Improved Patent Gin Power.

Few persons can have had greater experience or closer practical acquaintance with Horse Powers than we have had. We commenced their manufacture nearly twenty years ago, and have given this branch of our business the closest attention ever since, and, without boasting, we assert that we know what constitutes a good horse power for ginning cotton, and offer those described in the following pages as the very best in use.

Planters have been so badly imposed upon in the purchase of their gin gear as to be very properly a little skeptical of all improvements however plausible. We will, therefore, assume all risk ourselves, and agree to give a fair trial before paying, to all who will satisfy us of their responsibility and good faith. Among the advantages claimed for our gin powers, are the following :

THE MATERIAL,

Especially the iron of which they are made, is very carefully selected, and is the strongest the market affords. They are very carefully proportioned and the cogs all made with mathematical precision, so as to combine the greatest strength with least friction.

THE PINIONS

Are all made of steel, and do not wear, thereby protecting the shape and durability of the cogs of the large wheels.

THE BOXES

Are self-oiling and lined with anti-friction metal.

THE FRAMES

Or Sills are made of the best white oak.

THE KING OR MASTER WHEEL

Is a strong bevel wheel, turned true on the under side of the rim, and is supported in its center by a step box, but its weight is carried upon three rollers, or travelers, placed under the rim, one of which is directly under the bevel pinion. These rollers, like the rim of the wheel, are turned true, insuring the wheel to revolve true and smoothly.

THE KING-POST

When furnished by us, is of square wrought iron, passing through a corresponding hole in the hub of the master wheel; the shape of this hole is such that the wheel is not affected by the king-post becoming slightly out of perpendicular, as it sometimes will, by the settling of the gin-house.

THIS IS

The only power in use that is not deranged by any amount of sagging of floor upon which it rests. The king-post, as stated, is square and plays through the hollow spindle of driving wheel. It is very simple of arrangement and strongly made. Persons who desire to make their own king-post, and thus save the freight on the iron post and levers, will order

THE WOOD POST POWER,

Which will include all the gudgeon rings and step box, but not the post itself. The upper gudgeon of the wood post power has a square stem, and adjusts itself to the wheel precisely as the iron post does.

The illustration on next page represents the *iron post* power in position.

The wood post power is set up the same way, and is in all other respects precisely like it. Prices on page 92.

WITH IRON FRAME AND IRON KING-POSTS.

THE FARQUHAR PATENT IRON KING GIN POWER.

WITH EITHER IRON OR WOODEN KING-POSTS.

The above cut represents my Improved Patent Horse Power, made especially for driving Cotton Gins. It is the only power in use that is not deranged by any amount of sagging of floor upon which it rests; and the gearing, being set in an iron frame, is not damaged by the weather.

This Power runs light for two horses, and cannot be broken with eight. When ordered with iron king-post, a mechanic is not needed to put it up. The frame-work rests upon the floor of the gin house, as shown in the engraving, or when there is not space to spare in the ginning rooms, it is just as well to bolt it up against the under side of the floor-timbers, a portion of the band-wheel only coming through the floor.

The levers are attached to the iron king-post by means of a socket. The lower end of the post rests in a step box (or ink, as it is sometimes called). Would recommend the iron king power with wrought iron king-post as the best and most economical gin power in use. See price list on next page.

PRICE LIST OF FARQUHAR'S PATENT BEVEL GIN POWER,
WITH IRON KING-POST.

	Weight.	Price.
Iron Post Horse Power	1125 pounds.	\$115.00
Wrought Iron king-post	410 "	14.00
Cast head piece for levers	120 "	5.00
Step box	15 "	1.00
Iron Post Power, complete	1670 pounds.	\$135.00

11 levers and braces are wanted, \$7.00 extra, but parties usually prefer to furnish these to save freight.

Power required from 2 to 8 horses, depending upon size of Gin and amount of work.

BEVEL GIN POWER WITH WOOD KING-POST.

I make these Powers same as above, but with iron gudgeons and rings (see Figs. 2 and 3) for upper and lower end of wood post, to suit those who prefer furnishing the posts themselves.

PRICE LIST OF FARQUHAR'S PATENT BEVEL GIN POWER
WITH WOOD KING-POST.

	Weight.	Price.
Wood Post Power	1125 pounds.	\$115.00
Upper gudgeon with rings	250 "	7.00
Lower " " "	30 "	2.00
Step box	15 "	1.00
Wood Post Power, complete	1420 pounds.	\$125.00

AWARD AND MEDAL TO A. B. FARQUHAR FOR HORSE POWER FOR GINNING COTTON.

REPORT OF JUDGES FOR FARQUHAR'S PATENT GIN POWER.

For the power of adjusting both vertically and horizontally, which is very important, as owing to faulty construction the floors of gin rooms frequently sway in consequence of heavy load and too long supporting timbers; and but for this arrangement the gear will inevitably get out of order.

(Signed)

JOHN BRADFORD.
E. OLDENDORFF.
EKEDA KENZO.

JOHN COLEMAN.
JAMES BRUCE.

Four Gold Medals with the Highest Prizes were awarded A. B. Farquhar
at the World's Centennial Exposition at New Orleans upon

The Farquhar Vibrator, Saw Mill

—AND—

Ajax Portable Steam Engine.

The implements and machinery from the Pennsylvania Agricultural Works uniformly obtain first premium in competition throughout the world. Everything is warranted.

Prices are made as low as consistent with first quality of material and workmanship, hence purchasers run no risks. Our customers are our friends and always treated as such.

STEAM ENGINES.

We have long made a specialty of steam engines, making all sizes, from the Small Vertical Engine to Stationary Engines of hundreds of horse power, and so far as we are aware every engine and boiler that has been turned out of our works is still in successful operation.

We have never had a boiler to explode or give way, nor has there been any trouble with our engines.

AGRICULTURAL ENGINES A SPECIALTY.

Every large farm or plantation should be supplied with its own Portable Steam Engine, from 5 to 15 horse power, depending upon amount to do.

For threshing, ginning, grinding, sawing wood, and, indeed, anywhere that stationary horse power is much used, the engine may be employed to good advantage, as it will do more work for the same cost.

Our Portable Engines are among the best offered in America, and while embracing all the latest improvements, they are simple in construction, economical in fuel, easily kept in order, and very durable. They are of much larger rated horse power than furnished by any other manufacturer, as you can see by comparing sizes in the tables. Charcoal pig iron is used in the castings of engines, the connections are made of steel and bronze, the pistons double-ringed and self-packing, and the boilers are made from best boiler steel, with tensile strain of not less than 50,000 pounds; fire boxes always of best steel.

In purchasing a steam engine, it is of the first importance to get the best, made by a responsible manufacturer who values his reputation too highly to use inferior work or material, as, aside from the endless trouble and loss entailed by defects, there is danger to life and limb. Now, we sell our engines just as cheap as we can, and make them as well as we can, and we claim they are far cheaper in the end than some of the common engines, placed on the market only to sell, would be at even half the price.

Would say, in conclusion, that our trade has largely increased each year, and that we now employ more hands in this line than any other similar factory; and this, too, without a single traveling agent. We prefer to give our customers the advantage of what other manufacturers spend on the road, and rely solely upon the merits of our work for its sale.

Will make special prices upon application.

A good steam engine is much more economical than animal power when in use, and, eating no oats, costs nothing when idle. They will pay on any well-conducted farm of 100 acres or over.

Steam power costs so much less than animal power, even on the farm, that it is only necessary to give to the public a good engine, that is safe, simple, and not too expensive, for the steam engine to become as universal as the reaper, cotton-gin or thresher. Such an engine is as sure eventually to take the place of animal power on the farm as the locomotive has of the stage-horse.

Our Portable Engine, it is confidently believed, will meet every just requirement, and prove equal to any other, being, in fact, just what is wanted to do general farm and plantation work, light and easy to move, and always ready to work.

Farmers cannot afford to keep stock to do their work when steam power can be had at these prices. A six-horse steam engine with vertical boiler costs \$350, while six good horses are worth, say, about \$800, and \$200 to \$300 more annually for feed and attention. The engine puts you to no expense when not in use, and is in no danger from thieves; horses must be cared for always, and will eat nearly as much when idle as when at work.

Parties purchasing engines from us may rest assured that the most conscientious care is given to every detail of manufacture, and especially to the material and workmanship of the boiler, upon which so much depends.

We shall only speak here of a few essential features.

THE BOILER

is made of the best grade of boiler steel, with best steel fire-boxes strongly riveted, and tested at double the strain that will ever be required to bear in use. No Farquhar boiler has ever exploded.

THE CYLINDER

is secured to bed-plate in such a way as to insure the engine to be always in line. It is accurately bored and has a *spring-packed* double-ring piston fitted to it, which experience has shown to be the most serviceable and economical when properly constructed.

THE VALVE,

a well-proved pattern, made in best proportions. The valve can never raise to permit grit or dirt to lodge under it and make it cut and break, nor can it "stick" and prevent starting, as is sometimes the case.

THE GOVERNOR

has a balanced valve and is arranged to give different speeds to the engine, and will perfectly control its movements.

THE PISTON ROD,

valve rod, crank and cross head pins, are all of the best steel.

THE CONNECTING ROD

is of wrought iron, with solid ends, with boxes of best composition metal.

THE PUMP, IF SPECIALLY ORDERED,

on vertical and side crank engine is driven by an eccentric on the main shaft and placed on the side of boiler opposite the engine, making it convenient and easy of access to clean the valves, etc., when the engine is in motion.

THE HEATER

is provided with a coil of pipe through which the feed-water circulates, and is thoroughly heated before entering the boiler. The exhaust steam after it passes through the water escapes into the smoke-pipe in the usual manner, accelerating the draft and extinguishing the sparks.

THE SPARK ARRESTER,

of most approved pattern, in the smoke-pipe prevents the escape of fire at this end of the boiler, and a

CLOSE ASH-PAN

at the fire-box makes the engine a safe one to use about barns and gin-houses. A blower serves to increase the draft when necessary.

MOUNTED ENGINES

have stout wrought iron axles. The wheels are very strong and durable; the front axle has a ball and socket

FIFTH WHEEL,

which always gives a free movement, and cannot break by the twisting incident to bad roads. The engine is set very

LOW ON THE BOILER,

which avoids the tendency to overturn experienced with engines that are set high above the boiler.

TWO PULLEYS

are provided to adapt it for driving fast or slow running machinery.

PORTABLE ENGINES,

FOR THRESHING, SAWING, GINNING, AND GENERAL
FARM USE.

"AJAX" CENTRE CRANK MOUNTED ENGINE.

THIS ENGINE IS WARRANTED EQUAL OR SUPERIOR TO ANY IN USE.

For Price List see Page 95.

THE SIDE CRANK ENGINE.

Still largely used for stationary purposes—but the center crank shown on preceding page makes the most popular and convenient portable engine. Being provided with a driving pulley at each end, two machines may be run at same time.

Showing Side Crank or Corliss Frame Engine for general farm purposes.

Price List and Principal Dimensions of the "AJAX" Portable Engines.

MOUNTED AND ON SILLS.

HORSE POWER.	CYLINDER.	BOILERS.					STACK.	FLY-WHEEL.	SMALL PULLEY.	ON SILLS.	ON WAGON.	HORSE POWER.							
	Bore and length of stroke.	Diameter.	Length of fire-box in inches.	Width of fire-box in inches.	Height of fire-box in inches.	Number and size of tubes.	Length of tubes in inches.	Diameter of stack in inches.	Length of stack in feet.	Diameter in inches.	Width of face in inches.	Diameter in inches.	Width of face in inches.	Revolutions per minute.	Estimated weight.	Price on sils.	Estimated weight.	Price on wagon.	
4	4½ X 6	24	29	20	20	2 in.	44	8	8½	30	5	16	6	225	2,500	\$ 375.00	2,850	\$ 425.00	4
5	5 X 6	24	29	20	20	2 in.	50	8	8½	30	5½	16	6	215	2,800	385.00	3,200	450.00	5
6	5½ X 8	26	29	22	29	2 in.	52	10	8½	33	6	16	6	200	3,100	410.00	3,400	480.00	6
8	6 X 8	26	31	22	29	2 in.	55	10	8½	36	6	16	8	200	3,400	435.00	3,900	510.00	8
10	7 X 10	26	37	22	29	2 in.	63	10	8½	40	7	18	8	190	3,800	515.00	4,500	595.00	10
12	8 X 10	30	41	25	30	2 in.	68	12	10	44	8	18	8	180	5,050	580.00	6,000	665.00	12
15	8 X 12	33	41	28	34	2 in.	75	15	12	48	10	30	8	175	6,500	650.00	8,000	735.00	15
18	9 X 11	33	41	28	34	3 in.	76	15	14	48	12	30	8	170	7,500	695.00	9,000	780.00	18
20	9 X 15	36	49	31	36	3 in.	99	18	14	60	12	to order.	to order.	150	8,200	835.00	9,900	935.00	20
25	10 X 12	36	49	31	36	3 in.	99	18	16	60	13	to order.	to order.	150	9,500	890.00	11,100	1,025.00	25
30	10 X 15	39	52	34	40	3 in.	102	20	16	72	14	to order.	to order.	130	11,000	1,000.00	12,500	1,170.00	30
35	11 X 15	39	52	34	40	3 in.	123	20	16	72	15	to order.	to order.	130	12,000	1,075.00	13,000	1,245.00	35
40	11 X 20	42	53	36	44	3 in.	108	22	18	84	15	to order.	to order.	120	12,500	1,450.00	13,500	1,650.00	40

ALL LOCOMOTIVE BOILERS HAVE STEEL FIRE-BOXES.

The above prices are for center crank engines mounted on the boiler, with boiler on sils or wagon, and include all fixtures and fittings complete, ready for firing up. Smoke stacks, with spark-catchers for all sizes up to 18-horse power; above 18-horse power, spark catchers are not included, and if ordered will be charged extra. Ash-pans are put under all boilers, either mounted or on sils, up to 15-horse power. If wanted under larger sizes of unmounted engines, they will be charged extra. Those who prefer pumps can have them instead of inspirators by so specifying in the order. For engines of 10-horse power and over, particularly where used for saw mills, we have found inspirators the most satisfactory, and they will always be sent unless orders are given to the contrary. It is sometimes well to use two inspirators, so that no possible delay can occur from a failure of the water supply. It is much better to use iron pipe for the suction wherever it is practicable, as gum hose soon gets to leaking, and causes a failure of inspirator.

If pump and inspirator or two inspirators are ordered, a charge will be made covering extra cost. Always buy an engine of ample size for your work. (Overloaded machinery, like overworked men, will soon wear out.

Beware of cheap boilers. Few are prepared to die, and even those few would not care to be scalded to death. The best is always the cheapest. Remember no Farquhar boiler has ever exploded.

Mounted Engines have Springs under Rear Axles.

8 X 12 ENGINE IS SQUARE BED FRAME PATTERN, SIMILAR TO SIDE CRANK ENGINE SHOWN ON PAGE 111.

Engines on Vertical Tubular Boilers.

All our vertical boilers are dry steam, made with submerged tubes and steel boxes, and hence are as durable as the horizontal boiler.

These are light, convenient, and cheap, and though not designed for as heavy service as the horizontal Engines, they have no superior among *light Engines*.

PRICE LIST AND DIMENSIONS.

HORSE POWER.	ENGINE.			BOILER.				
	Size of Cylinder.	Size of Fly Wheel.	Revolutions per Minute.	Height of Boiler.	Diameter.	Number and size of Tubes.	Price not Mounted.	Price Mounted on 2 wheels.
4	4 X 5	24	175 to 225	5'	24	28—2 in.	\$225	\$265
5	4½ X 7	30	175 to 220	6'	26	36—2 in.	260	305
6	5 X 8	33	160 to 200	6'	28	42—2 in.	315	365
8	6 X 8	36	150 to 180	7'	28	44—2 in.	365	425
10	6½ X 9	42	130 to 160	7' 6"	32	52—2 in.	435	495
12	7 X 10	46	120 to 150	7'	34	66—2 in.	470	
				Smoke-stack and Spark-catcher included, if ordered separately as follows :		Weight complete.	Smoke-stack, per foot.	
						2100	\$6.00	Spark-catcher.
						2500	6.00	
						2700	7.50	
						3100	8.00	
						3800	8.50	
						4100	8.50	

As an Engine of this kind will generally pay for itself before the first season is out, it is a good investment even for those whose capital is limited, as in a few years it will earn enough to buy a larger engine, if needed.

They are furnished with first-class steam gauge, governor, safety-valve and other necessary attachments, and are complete, ready to run. Smoke-stack, spark-arrester for mounted engine, and exhaust pipe running into stack are included in these prices.

SHOWING ENGINE AS IT APPEARS TO RUN.

Engines furnished with pump unless inspirators are specially ordered.

No Cast-Iron is used in these boilers; they are throughout of the best 60,000 lb. tensile steel with steel fire-boxes, and the Engines are made of the best iron and steel, with adjustable brass boxes for crank and cross-head wrists, and every part can readily be removed for repairs in case of accident.

PENNSYLVANIA GRAIN DRILL,

WITH

FORCE-FEED FERTILIZER ATTACHMENT.

BIRD'S EYE VIEW OF PENNSYLVANIA AGRICULTURAL WORKS, YORK, PA.

PARQUHAR LOW-BOW N VIBRATOR

Manufactured by J. B. PARQUHAR & CO., Limited

1900