Garden and Small-Farm Power

The word "garden" in connection with the name of Garden Tractors, expresses a thought that is far too limited. Its use has grown up because the little, early-day machines had power for barely the hand tools of a back-yard garden; but modern STANDARD Garden Tractors readily handle the work of a horse or in some cases of a team of horses. They handle plows, cultivators, discs, harrows, planters or mowing machines. The larger models are all purpose machines, entirely capable of doing all the work on a five or ten or twenty acre place. They are in fact small-farm tractors as well as garden tractors, and though the word "garden" is still used to distinguish the walking type tractor from the big field tractor; it should be kept in mind that today's STANDARD Garden Tractors have a capacity far beyond what the word "garden" might imply.

And in bringing this increased capacity to the garden tractor field, STANDARD Tractors have again established new measures of usefulness, for the man who farms intensively. Compact, powerful and sturdy, they eliminate the drudgery and expense of hand or horse methods and place their owners in a fair position to gain the same benefits that Power is bringing to all industry today.

The Standard Tractor Line
Sized and Powered for Every Type Small Farm

In meeting the need for compact power farming equipment, Standard now provides a full line of tractors — the TWIN, the MONARCH and the WALSH — and we believe these latest Standard Models cover the complete field for the garden and small-farm tractor.

The New Standard "TWIN" with its 2 cylinders, 2 speeds and 5 H.P. engine, is built for the man with the larger acreage or extra severe conditions, who needs that excess capacity which only two cylinder power can give. It brings to the small tractor field that surplus of power and strength and smooth operation which have long been available to the big farmer—and in so doing marks a definite forward step in the progress of power on the small farm.

Of the Standard "MONARCH" little need be said. The acclaim of thousands of friends bespeaks its merits more truly than can any words. Powered with the Standard 3½ H.P., one cylinder, heavy duty engine, the "Monarch" Models have for years blazed the trail, in bringing the benefits and economies of modern power to the intensive grower. Tried and proved by thousands, from one end of the country to the other and in almost every Nation of the world, the Standard "Monarchs" stand secure on the reputation they themselves have built.

In the lighter "WALSH" Model, Standard presents a latest development of the well known Walsh Tractor—a sturdy, low-cost machine that has gained wide approval from coast to coast. And, too, we would confirm the consolidation of Allied Motors Corporation and the Standard Engine Company. Their Viking Twin and 3½ models are replaced in the same high quality, with the Standard Twins and Monarchs.

Throughout the entire line, Standard Tractors are built on the complete manufacture plan. They are not assembled machines, with an engine bought from one maker and a transmission bought from another; but on the contrary complete tractors — complete from engine to final drive—built by one manufacturer, to give complete and lasting service.
**Reasons for Standard Design with**

There are two outstanding and controlling factors in the construction of any garden or walking type of tractor—it must operate in comparatively restricted quarters, and it must be able to work under a wide variety of crop cultivating and soil conditions. This means that it must be light, compact and quickly adjustable to the different widths of rows and crop working conditions.

All STANDARD Garden Models are 2-wheeled machines, having drive wheels of large diameter, with the motor mounted on the axle between them, and the working tools are pulled by a drawbar, behind. The tractor itself is started and stopped with a clutch, the same as an automobile, and steering is done by handles, just like a one-horse cultivator. Free running differentials permit the tractor to turn in its tracks, with one wheel as a pivot.

Speed over the ground is regulated by hand throttle control and also, in the case of the larger “Twin” Model, by gear shift with 2 speeds forward and reverse. The tread—that is, the space between wheels—is quickly adjustable to fit the distance between any widths of rows, or, in irrigated countries, to conform with the ditches.

**Ample Power**

Each Model is, of course, sized and powered for its particular capacity. The “Walsh” has a 2½ H.P. engine, and in all over dimensions is 32” wide, 36” high and 58” long. The “Monarch,” with 3½ H.P. engine, is 34” wide, 39” high and 64” long. The “Twin” has a 2 cylinder, 5 H.P. engine, is 36” wide, 41” high, 78” long.

**Rubber Tired or Steel Wheels**

Although many manufacturers only equip their tractors with rubber tires, experienced growers know as we do that a choice should be offered. This choice is largely a matter of personal preference; but in general rubber tires are preferable where there are walks, roads, lawns or paved highways to run over. Lugged wheels are at their best in fields where the soil is hard and firm. In line with our policy of covering the complete range of requirements for all conditions, we are equipped to supply either rubber tired or lugged, steel wheels.

**Rubber Tires**

The rubber tires supplied with Standards are first grade, field tread, low pressure tires. Their rough field tread provides a large surface to grip the ground and their low pressure enables them to flex around stones or clogs to hug the field irregularities. They are mounted on rolled steel rims and come in sizes of 7.50x18 (33” outside diameter) for the Twin; 5.00x21 (31” outside diameter) for the Monarch; and 4.00x18 (26” outside diameter) for the Walsh.

**Lugged Wheels**

For the different models, steel wheels come in two diameters—30 inch on the Twin and Monarch and 26 inch on the Walsh. They have rolled steel rims with heavy steel spokes and removable pyramid lugs to give deep surface penetration and crow-bar traction leverage in hard ground. Their large diameter provides easy rolling in rough fields, as well as high clearance for the plants.
Standard Enclosed Construction

THROUGHOUT, STANDARD construction is of the very highest type. STAN-
ARDS are not made to meet a competitive selling price; but to give to the man
who understands quality, a machine that he can be justly proud of. On Standard
Tractors you will find no exposed cast-iron gears, or belts or chains running out in
the open where they can quickly clog up with dirt; but on the contrary note from the pic-
tures how each "Standard" Model has a fully enclosed design—a construction which
insures maximum service and long life in the field.

Dirt Protection

Garden Tractors work under severe conditions of dirt and grit and therefore,
of first importance for long wear is dirt protection. Every moving me-
chanical part in every STANDARD TRACTOR is enclosed and runs in
oil—enclosed just the same as the transmission of a good auto-
mobile.

Oil Tight

The engine itself is completely enclosed. The transmission and clutch are abso-
lutely housed. The final drive or axle runs through long bearings into the
transmission gears with positively no openings for dirt to get in. Every cover-
ing plate has a machined surface fitting against a machined surface, with shel-
lacked gasket between. Oil can’t work out, nor dirt work in.

and Full Dirt-Proof Design

Air Cleaner

So that no dirt whatever can get inside a STANDARD, the air intake to the carbu-
retor is equipped with the latest Moss filter type air cleaner. To run, a gas engine
must have air, but if this air is dirt laden, that dirt gets right on through the carburetor
into the engine. On STANDARD Tractors every bit of air sucked in by the carbu-
retor is thoroughly filtered before it reaches the inside of the engine.

Cut Gears

Gears transmit the power of the engine, to the tractor wheels, where that power is effective
for pulling a load. Every gear in every Standard Tractor is a machine cut gear, running on a
solid ground shaft with a controlled clearance of 1/1000 of an inch so that the mesh of the
teeth is always accurate. Here is smooth power—not the rough, grinding, wearing operation
that occurs in chain drive, or exposed cast iron gears.

No Belts, No Chains. All Enclosed Gears.

The oiling of course on the "Twin," the "Monarch" and the
"Walsh" is fully automatic by a combination plunger pump and
circulating splash system which
forces the oil from the reser-
voir, located in the bottom of the
 crank case, to the entire engine,
timing gears, transmission,
clutch, final drive, etc. The oil
pump is operated direct from the cam shaft so that oiling
of the entire tractor is sure
and positive, at all times when the
machine is running. Complete and unfailing lubrication is
the very life of any piece of
machinery and in Standard
Tractors all working parts run
in a constant bath of oil.
An All-Round Machine

STANDARD GARDEN TRACTORS are all-around power machines that will take you right from the season's start on through the Spring seed bed and cultivating and finish up the summer's harvest and haying operations. They will haul loads—and in fall and winter will serve you belted to the pump, feed mill or washing machine. STANDARD TRACTORS are truly all-season machines.

Plowing and Seed Bed Work

Early Spring work, while not as continuous as the cultivating operations, is surely equally as important, and important that it be done right for it is the foundation of the whole year's crop. With the plowing equipment (See Pages 12-13) a STANDARD will get into the field with the first break of weather and quickly clean up the job while the soil conditions are right. Next with the discs or harrow or with the stakes set up as a spike tooth it will go after the harrowing job, which may be followed immediately with a planking and leveling outfit to leave the seed bed in finished, first-class shape.

Planting

Now comes seeding, and to start with we have a smooth well mulched field to work on—a field on which our seeders will plant at an even depth and in straight, regular rows. If we have a big place we will hitch on two or three seeders and march steadily back and forth covering 3 to 4 feet at a trip (2½ to 4 acres per day) and the beauty of our seeding is that our rows are regular and parallel.

For Year Round Work

But cultivating is the main job, not because each cultivation is so hard in itself, but because it must be repeated so often. Still we have the start of the weeds, because our seed bed work was done right and all early weeds thoroughly set back.

On our first cultivation, we will go slow—mighty slow and run our tools right up to the little plants. In another week, we will go through again a little faster this time because we don't have to be so careful of covering the rows. In another ten days, we will go through again and our crop will be well on its way.

And right on through the hot Summer we will take the STANDARD out of his shed, give the engine a crank or two and put him to work. And as the season advances and the ground gets hard and baked, we will stick our shovels down a little deeper with a confidence bred of experience that a STANDARD can pull the load.

Haying and Stationary Jobs

Then at odd times we will go after the alfalfa or hay or weeds with our Sickle Bar Mower and when the Fall comes we can throw on the belt and get busy on the feed mill or after the winter's supply of wood.
For Commercial, or

Market gardeners and truck farmers were of course among the first to realize the value of Standard Tractors. Their work is particularly exacting because of its intensity and had come to be almost entirely a hand push hoe proposition. Incidentally, they all had a serious labor problem with the ruff-ruff help around the big cities. With a Standard the amount of work one man can do is fully trebled and any smart boy can do far and away more work than any man with a push hoe. Lettuce, onion, onion set growers and the like, who operate on a large scale in closely planted rows find Standards almost indispensable tools for their quantity production.

Florists—The cultivation of flowers has always been a very expensive and tedious task. Of necessity, the work must be very careful and accurate to prevent spoiling the blooms and stems and as a result practically no horse work could be done. It was a hand job from start to finish. Because of their high clearance and accurate control, Standard Tractors just fit into this work. They can be guided just as accurately as a push hoe, still have the power to pull the load steadily which gives the operator his entire attention for the plants.

The Nurseryman and perennial grower has always been up against a peculiar problem all his own. He had to cultivate just as close as the florist, but at times of the year he had to do deep work as well as close work—this deep work could not be done by hand, so he had to use horses. But because of marketing conditions, he had to be on just as expensive ground as the florist and he could not afford to use that ground for raising feed stuff. Result, an all year round feed bill. In a Standard Tractor he fills both his requirements—a machine that can work close and that can work deep—and a machine that eats only when it’s working.

Small Farmers—In most sections of the country, the increase in the number of small farms has been very marked. By small farms we mean the five or ten or twenty-acre place, which raises a general run of field crops as well as vegetable crops. And for these men the larger Model Standards (the "Monarch" and the "Twin") have solved the power problem in a most complete way. Built compact and handy so as to get into the close quarters, still these sturdy machines have the power and capacity for regular field crops. Also, many large farmers find Standards an excellent auxiliary tool, adapted to that share of their work in small or odd shaped fields where a team is too big and awkward.

Part-Time Growers

Berry and Fruit Growers—In berries and small fruit, the cultivating problem has not been so great as in some other, more intensively cultivated lines. The rows were far apart and a horse could be used, though he was troublesome among all the bush berries and did lots of trampling and knocking down of the branches. But even the berry grower has come to ask himself why he, on his small acreage, should spend a third or half the produce keeping some horse alive. Mechanical power as exemplified in Standard Tractors is just as good as horse power and it is a world more economical.

The Poultryman finds in Standard Garden Tractors the answer to one of his most trying problems—that of plowing under the trash in his poultry yards to give his flocks freshly turned earth to scratch in. Working those narrow runs with a horse is difficult and awkward—and it's a he man's job with a spade. But a Standard can get right in there and plow close to the fences and the tight corners to leave a complete, well turned job. And for feed or forage crops, this same tractor can do all the work of preparing and planting seed beds, cultivating, harvesting, mowing and hauling in the produce. Also in Fall and Winter, belted to a feed mill or shredder, etc., it will deliver its full service—an all year-round machine.

The Suburbanite who has had to take care of his garden and lawn by hand or hire horses and help to do it, has lost much of the pleasure of his Summers. Work among the growing things has a great attraction, until it becomes a task, then indeed faithful cultivation is a bore. For such persons a Standard will add immensity to their pleasure. The satisfaction taken in a home garden or generous width of lawn depends very largely upon clean, well cultivated rows, or a smooth velvety expanse. Equipped with lawn mowing attachment, a Standard quickly handles the mowing jobs, and equally as quick it can be changed back into a powerful field plowing or cultivating tractor.

Country Estates—A fruitful garden is coming to be more and more a part of every wellrounded country home; and in fact a great deal of the enjoyment which we get from living in the open comes from raising our own produce. Standard tractors will not perhaps do this work any better than it can be done by the hired gardener, but it enables him to handle a much bigger and more varied crop and also gives the owner an opportunity, if he wants it, to get "next to nature," in a most enjoyable way.
Plowing with Standard Tractors

The plowing equipment for each STANDARD Tractor is specially designed for that particular model, and is built so that it works with the Tractor as a complete, self-contained unit. The Plow Beam fastens to the tractor proper through a clevis at the center of the axle, and the throat of the beam is held to the tractor handles through a special pivot hitch. When working, the right-hand tractor wheel runs in the furrow, the left wheel on the land and the operator has complete control of both his tractor and his plow, through one set of handles. The beam is hung so that the share cuts a flat-bottomed furrow, and adjustment for depth is through forward clevis. On “Walsh” Models, this depth adjustment is by pin and bolted clevis, while on “Twin” and “Monarch” Models, it is hand lever controlled.

Complete Beam Plow Unit

THE PLOW—all Standard plows have high full mould boards of hardened steel with long polished landsides. The “Walsh” Model plows cut 7-inch—the “Monarch” Models, 8-inch—and the “Twin” Models, 10-inch.

THE BEAM—in all cases the beam is heavy forged steel, with high throat for trash clearance.

ROLLING COULTERS—are hardened and polished steel, with complete adjustment in all directions. Walsh coulters have 9-inch diameter; Monarchs 10-inch diameter; and Twins 12-inch.

CLEVIS—and pivot hitch are forged steel, designed to give full adjustment for both depth and width of cut.

PLOW LIFT—“Twin” and “Monarch” Model plows have lever depth adjustment. This adjustment is convenient right while the tractor is moving and provides ¼-inch graduations in depth.

Operation

The STANDARD unit construction enables the operator to walk in the bottom of the furrow and handle both his tractor and plow exactly as he would any walking plow. Furthermore, because of Standard compactness, he can work in odd shaped plots or poultry yards, or between ridge grown plants or close to fences where a team or big field tractor would be useless.

Extension Rims

At heavy plowing with steel wheels, it is advisable to use an extension rim on the landside wheel because the wheel in the bottom of the furrow has hard ground for the lugs to grip, while the landside wheel has less firm footing, on the loose surface.

Plow Size, Speed and Capacity

The size plow that can be properly handled with any model STANDARD—or in fact with any tractor—depends directly upon that tractor’s size and power. A small machine can’t properly handle as large a plow as does a big machine, any more than a pony can pull the same plow as a big horse. Each STANDARD plow is the correct size for that tractor and a size which that Model will pull at a proper speed—because proper plowing speed is necessary for a fully turned furrow.

With the 7-inch plow, the “Walsh” Models turn over a clean furrow to moderate depth, under any reasonable conditions. The “Monarch” Models, with 3½ H.P. engine, handle an 8-inch plow at a fast walk, to turn from 1½ to about 2 acres per day—substantially the same as with a one horse plow. And the STANDARD “Twin” with their 2 cylinder, 5 H.P. motors, pull the 10-inch plow through heavy going at a fast field speed; and in stubble ground will plow on high gear, up to 2½ or 3 acres in a full day.
Discing and Harrowing

AFTER plowing, comes the harrowing, discing and preparation of seed beds—and then the actual planting. STANDARDS handle these operations with thorough efficiency. With harrow, drag, discs and planker you can chop up and pulverize the plowed ground to give each crop a good foundation and get the beds in shape for seeding. Notice well the pictures on this page, they bring out the adaptability of STANDARDS for this early season work.

Discing equipment can be had in sets of either 8, 10 or 12-inch discs, for the “Twin” or “Monarch” Models and 8 or 10-inch for the “Walsh” Model. A set consists of 2 sections with 3 discs per section (12-inch discs come with either 3 or 4 discs to the section) so they can be used not only for open field work but also for cultivating between, or astride, rows—and the cutting angle is adjustable to throw the dirt either toward or away from the plants, with slight (or heavy) hilling effect.

The Spike Harrows work a 4½-foot swath. They have 24 steel teeth, and are adjustable for deep or surface working. Where wanted, Acme Harrows or Spring Teeth can be had, or, the regular cultivating steels set fairly close together on special STANDARD double draw bars, will do a surprisingly good harrowing job.

Planting with the Standard

SEEDING with STANDARD Tractors is an entirely simple operation and can be done either one, two or three rows at a time, or even more if desired. Our seeder attachments fasten the seeder, or seeders, to the tractor which pulls them, and the row is steered directly by the guiding of the tractor itself. In all cases, a marker is carried to mark out the next row. Seeders can be supplied either with fertilizer attachment, as shown, or without. They have a positive regulation of the seed drop spacing and handle all sizes of seeds from onions and carrots on up to and including beans and corn.

The advantage, other than speed, of garden tractor seeding is that the rows are regular and the depth of planting uniform, because the seeders are pulled forward steadily rather than pushed with a downward, jerky movement which tends to run the opening shoe too deep in the ground at the start of every step forward.

Single or Multiple Rows

Seeding in one, or in more than one row, with a STANDARD is an almost identical operation—the only difference being in the number of seeders carried. When handling a single seeder, of course, the area planted per hour is not as great as when handling more, but the quality of the work is the same and even with a single seeder a man will do about twice the work he does by hand because his movement forward is steady. At multiple row work, the volume done is exactly in proportion to the number of seeders, and each set of rows planted are perfectly parallel so that they may be cultivated (See pages 16 and 17) several rows at a time, the same as they were planted.
High Clearance for Cultivating

Due to high wheels and adjustable tread, STANDARDS can work under an almost endless variety of conditions.

Single Row Work

They can operate arioste a row—the same as with a two wheeled push hoe or riding field cultivator—or, with wheels set close together, run between the rows like a one horse cultivator. Such single row work—either arioste or between the rows—is of course, the usual method on the general run of small farms, and due to their quick tread adjustment, Standards can straddle any width of plant row from carrots to strawberries; or the tread can be narrowed down for work between such crops as raspberries, dahlias or corn well advanced in growth.

Many Rows at Once

Or, if that fits the condition better, a STANDARD can work two rows at a time (See Illustration). As regularly equipped all models come with adjustable tread axles, to care for working arioste two rows, spaced as far apart as 18 inches.

This is a method generally favored in irrigated sections or where the crop is planted in beds, as it allows running each wheel in a water furrow and cultivating two rows planted on the shoulders of the bed. The STANDARD high clearance is particularly valuable here, because it gives a good clearance for the plants even though the beds are high and the water furrows deep. For special conditions, special axles can be supplied to give an even wider tread.

Adjustable Tread

The photographs on this page show the STANDARD TRACTOR adjusted to different conditions of row width. Adjustment is simple and easily made by sliding the wheels on the axle.

The width of tread wanted depends directly upon the nature of the work and the distance apart of the row plantings. It is obvious for instance that the width of tread suitable for onions in 14-inch rows, would be entirely impractical for some spreading crop like melons; and that the desired width for bedded work where the furrows were 20 inches apart would be useless in work where the ditches are 3 feet apart. For this reason, the STANDARD is made with adjustable tread.

Astride the Rows

The usual practice among STANDARD tractor owners, when cultivating one row is to set the tread so that each tractor wheel is approximately in the center between the next rows on either side. When cultivating two rows it is probably easier to adjust the tread out so that the tractor stands arioste the two rows, as illustrated on the adjoining page. This balances the load so that you have no side draft and gives a very easily controlled equipment. In handling three rows, probably the best method is to set the tread arioste the center row of the three with the drawbar extending out over one row on either side. (See illustration, page 16.) On the other hand some growers, at three-row work, especially if the rows are very narrow, prefer to have the tractor arioste all three rows. Either condition is easily obtained with a minute's adjustment.

Easy Operation

This adjustment in no way affects the operation or handling of the tractor and STANDARD differentials are so made that they operate the same regardless of the location of the wheels on the axle. Many, many conditions come up in the course of a year's farming which make a quickly adjustable tread on a garden tractor an extreme convenience if not a positive necessity.

Between Rows

In many of the bush crops such as raspberries at certain times of the year it is desirable to have a narrow tread. Strawberries, or any leafy crop, needs a wide tread.
Power Lawnmowing Equipment

MOWING the lawn is a task which may easily become a very definite burden. We all enjoy the large, smooth, green expanse of a beautiful lawn, but we also, nearly all, limit ourselves to an amount of lawn that can be easily cared for.

With Standard Tractors you have smoothly operating power units that can handle lawnmowers as well as the farming or field tools. Such equipment can be used interchangeably with the cultivating equipment and switching from lawn-mowing to field tools, or back again, takes but a few minutes’ time.

Large Area Mowing

Also on big areas such as parks, playgrounds, country estates, etc., the use of gang mowers on the bigger Standard Models, of course, multiplies the volume of cutting done.

Sickle Bar Lawnmowing

On suburban lawns where constant watering is not practical, many Standard owners prefer the sickle bar mower, with its adjustable height of cut, for their lawn work. Width of cut from 36 inches to 50 inches, depending upon the model.

Any Size Mowers

If a large area of lawn-mowing is contemplated the mowers should be quality built, heavy duty cutting units—though even small hand lawnmowers may be used at lighter mowing on small lawns. A 30-inch mower will cut from 1/3 to 1/2 an acre per hour and 21-inch mowers about 1/4 to 1/3 acre per hour.

The Sickle Bar Mower

AY, alfalfa, weeds or tall grass and trash in the orchard are ideal jobs for any STANDARD with handy Sickle Bar Mower. This equipment is attachable in a few minutes’ time and gives a compact outfit which will cut from 3 to 6 acres per day.

And for suburban lawns, which are not constantly watered, the sickle bar makes a most practical lawn-mowing outfit as well. The height of cut is adjustable, to cover the requirements on smooth lawns, as well as for the rougher ground in hay fields, orchards, roadsides, etc.

The cutter bar runs by power, with special clutch independent of the tractor clutch; so that the tractor may be run without the sickle bar moving—or both may be run together, as is the case when working in the field. This independent clutch is an indispensable feature in a successful Power Mower.

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Belt Work... Easy with Any Standard

Reliable Power for Belt Work Wherever You Need It

DAY after day, about every farm, country estate or suburban home, there arises the need for a powerful, serviceable engine to take its turn at driving some belt machine. The man who owns a Standard Tractor has completely solved this problem, because his tractor engine is always ready for the job. This Power Plant of the tractor may be auxiliary to a regular stationary engine, or on the average place the tractor engine can handle the double duty of supplying power for field work, and then filling in at belt work and stationary engine jobs as well.

Government investigations show that stationary or Belt Machinery jobs make up about one-third of the work done by a farm tractor, and this ratio substantially holds true for garden and small-farm tractors, as well as for big machines. This means that the ability to properly do belt work is a very important consideration.

Pumping water, grinding feed, sawing wood, running the washing machine, the churn, the grindstone—these, and a dozen and one other similar jobs are almost daily tasks on every small place, and they are tasks which a Standard will handle quickly and economically.

Miscellaneous Jobs

AROUND every place dozens of odd jobs are always popping up, which call for some convenient mobile power machine. Jobs like hauling cord wood or fence wire or hauling fertilizer to the field or bringing the crops in—jobs which are too heavy to do by hand, yet not easily done with a truck. For such work a Standard is an ideal outfit. With a small cart or trailer it can get into the soft fields or over the farm bridges or through the narrow gates or in and around the buildings, and complete in a few minutes' time, tasks which would take all day with a hand cart or wheel barrow.

"Walsh" Model Hauling Apples

Francis Dubuc, Belmar, N. J.

"Twin" Smoothing Up the Roads a Bit

Making Wide Level Beds at One Trip

Leveling the Roads

Also many Standard owners fix themselves up a light road drag out of two or three split logs or 4x4 planks. With such an outfit they have a very practical light road maintenance machine, which is easy to hook up and makes keeping the roads up a very simple problem. In winter some men hook on a snow plow and thus let their Standards keep the roads and pathways open.

Building Beds

Building beds is an important operation in irrigating countries, and Standard Tractors, due to their high clearance and adjustable tread, are particularly adapted to this work. Narrow beds with shallow water furrows are usually built at one operation, with either a pair of furrowers or hilling tools, to dig out the furrow and throw up the bed. In making wide beds, the wheels should be set for the greater distance between furrows, and the tools set up with a pair of furrowers or hilling tools on the front draw bar, and also an extra pair of hilling tools on the back draw bar, to move the dirt further ever toward the center of the broader bed.
The First Tractors

HOW interesting it is to glance backward, for a moment, and view the changes and progress which have been made in the design of Standard Tractors. The story of the Standard is truly a story of Progress—a story of unending effort combined with sound technical engineering knowledge.

From the very early days of the Garden Tractor, the Standard has been in the field—and it has been the constant aim of our Engineering Staff to continually better the machine and make it more practical for field service.

Today—it seems a long way back—to these early machines. Those were the days of the old fashioned chain and sprocket drive, with engine perched high in the air—a construction necessary when tractor and engine were not built together as a unit—a construction rendered obsolete in the light of later day automobile and farm tractor progress.

Succeeding the chain drive—came the open geared machine—gear driven throughout—but with gears exposed to the dirt and sand. This was a step forward, but cast iron, exposed gearing did not make for reliability and long service—because a garden tractor must work under severe dirt conditions all the time. Standard Tractors had to give the maximum in service—so the search went on.

First Home of Standard Engine Co.

An Early Forerunner of the Present Standard. Note the Chain Drive and Motor Cycle Engine

A Later Machine—An Improvement—But Exposed Gears Invited Upkeep Trouble

Some Later Models

THEN came the greatest forward step in Garden Tractor building—the first completely enclosed Standard. What a vast improvement over the dirt collecting chain drive machine or the gravelly, poorly lubricated exposed gear type. Built as a unit with gears, clutch, transmission and final drive housed in the crank case, and with lubrication positive and efficient—this new Standard stood far ahead of the field, and even yet on many a farm over the country you will find these first enclosed machines rendering faithful service to their owners.

But demand came for a tractor with more clearance and vision and greater ease of handling. Again the engineers of the Standard Engine Company bent to the problem, and the next development was the high wheeled Tractor illustrated in the field picture below. Wheel tread was also made adjustable—and the power plant so located as to give maximum draw bar pull, and low center of gravity for side hill work.

Response was enthusiastic—the factory enlarged—and the STANDARD became "the measure of Garden Tractor value." But each year saw engineering advancements. The need arose for a garden tractor which would plow as well as cultivate. And so came a greater STANDARD with plowing power—the first of the Standard “Monarchs,” reaching its ultimate development in the MONARCH Models of Today.
"Twin" Specifications

Engine: Standard, 2 cylinder, 5 horsepower, N.A.C.C. rating, 5½" bore by 4½" stroke.

Transmission: 2 speeds forward and reverse. All gears cut and fully enclosed.

Crank Case: Grey iron, ventilated and all moving parts enclosed.

Crankshaft: Forging. Heat treated, counter balanced and bearings ground.

Cylinders: Grey iron, tungsten bored.

Pistons: Aluminum alloy with three rings and oil grooves. Ground finish.

Connecting Rods: Drop forging, babbitt lined bearings 1½ x 1½.

Main Bearings: Dural sintered bronze 3½ x 3½.

Clutch: Full releasing, multiple disc.


Differential: Free running, gear type.

Final Drive: Enclosed spur gears.

Axle: Cold rolled steel, 1¼ diameter.

Main bearings 5" long.

Cooling: Air cooled by Sirocco fan in fly wheel, forcing air around cylinders and cylinder heads.

Dust Protection: All moving parts entirely enclosed.

Air Cleaner: Moss filter type.

Carburetor: Compensating float type, positive throttle control.

Fuel: Gasoline. Tank capacity for one full day's run.

Ignition: High tension magneto.

Oilings: Full automatic by plunger pump and circulating splash system.

Speed: 2 speeds, ¾ to 3 miles per hour.

Reverse: Selective type. One-fifth mile per hour.

Wheels: 30" diameter by 3½" face, with heavy steel hub.

Lugs: 24 pyramid lugs to each wheel.

Tread: Adjustable, giving an 8½" adjustment from 23½" to 32" between centers. Special axles to give wider treads.

Clearance: 18 inches with steel wheels and lugs.

Steering: By handles.

Turnings: By power turn brake.

Handle: Heavy steel tubing.

Control: By hand lever.

Draw Bar: Steel. Floating double draw bars and clevis connection tool holder.

Tool Lift: Steel hand levers with ratchets. Fully adjustable.

Tool Posts: Steel, bolted to shape, adjustable in all directions.

Outline: Hand or horse drawn type.

Tread: Pulleys, 5" diameter by 3" face. Runs at 900 to 1800 R.P.M.

Width: 36 inches.

Height: 4½" to top of gas tank.

Length: 78" over all.

Weight: 825 pounds.

Special Attachments

The number of attachments which can be handled with the STANDARD "Twin" is almost endless and a wide assortment is pictured on pages 32 and 33. The "Twin" is definitely in the top power and capacity class among garden and walking type, small farm tractors. It handles the 10-inch plow through heavy going, at a fast walking speed and in stubble ground on high gear will plow, up to 2½ or 3 acres in a full day. At cultivating jobs the acreage covered depends greatly upon the closeness of rows; but at the general run of work, 3 to 6 acres per day of heavy cultivating is a fair average.

Floating Tool Carriage

The Tool Carriage for the STANDARD "Twin" is suited for both between and astride-the-row work. It includes:

1. Complete Double Draw Bar
2. Tool Lift Levers
3. Gauge Wheels
4. Special Tool Control
5. Front Staggered Tool Posts
6. Rear Staggered Tool Posts
7. Straight Tool Posts
8. Cultivating Steels, 2-inch
9. Tool Post Clamps

All required Bolts and Nuts
The present home of Standard Tractors—A modern and up-to-date manufacturing plant.

2 1/2 H.P. Engine, "Walsh" Model Standard

3 1/2 H.P. Engine, Standard "Monarch"

No belts, no chains... All

All are standards... Built to give
With Rubber Tires or Steel Wheels and Lugs

2 Cylinder, 5 H.P. Engine. "Twin" Model Standard

ive a Greater Value, for a Longer Time
"Monarch" Specifications

**Engine:** Standard. Four cycle, heavy duty. One cylinder, 3" bore x 3" stroke. Fully enclosed. H.P. N.A.C.C. rating.

**Transmission:** One speed, spur gear type. All gears cut and heat treated. Enclosed and automatically oiled.

**Crank Case:** Grey iron—ribbed and ventilated. Joining surfaces machined.

**Crankshaft:** Drop forging. Heat treated, counter balanced and ground.

**Cylinder:** Grey iron, tungsten bored.

**Piston:** Aluminium alloy, ground to size.

**Connecting Rod:** Forging, babbitt lined bearing. 7/8 x 7/8.

**Main Bearings:** Moneine patented sinter process, size 7/8 x 7/8.

**Fuel:** Gasoline. Tank capacity for one full day's work.

**Air Cleaner:** Mist filter type.

**Ignition:** High tension magneto.

**Oiling:** Full automatic by plunger pump, and circulating splash to entire engine, clutch, transmission.

**Speed:** 1 1/2 to 2 1/2 miles per hour.

**Wheels:** 36" diameter x 9/16" face. Heavy agricultural type, with steel hub.

**Lugs:** 24 pyramid lugs to each wheel.

**Tread:** Adjustable. Closest location of wheels 18" between centers. Widest location 29" between centers. Special axles give any tread desired.

**Clearance:** 15 inches with steel wheels and lugs.

**Handle:** Steel 1-beam section.

**Control:** By grips on handles.

**Draw Bar:** Steel. Floating double bars, and clear vision tool control.

**Depth Adjustment:** Steel levers with ratchets, at ends of drawbar. Adjustable.

**Tool Posts:** Steel, bulldozed to shape. Adjustable in all directions.

**Tools:** Hand or horse drawn type.

**Belt Pulley:** 10" diameter x 3" face. Runs at 450 to 600 R.P.M.

**Width:** 34 inches.

**Height:** 30" to top of gas tank.

**Length:** 64" over all.

**Weight:** 415 pounds.

**Special Attachments**

On pages 38 and 39 are illustrated the various attachments most commonly used with "Monarch" Tractors. These include the 8-inch plow, with a capacity of from 1/4 to 2 acres per day—all the discs in 5, 10 and 15-inch sizes—the sickle bar equipment—spike bar—seeder—riding cart—potato digger—snow plow, etc. And with any of the cultivating tools illustrated on page 45, the "MONARCH" has a capacity ranging from 1/4 to 2 acres of close rowed crops on up to 4 acres per day in water plants.

**Floating Tool Carriage**

The Tool Carriage for the Standard "Monarch" is suitable for both between and astride the row work.

It includes:
- Complete Double Draw Bar
- 2 Tool Lift Levers
- 2 Gauge Wheels
- Special Tool Control
- 2 Front Staggered Tool Posts
- 2 Rear Staggered Tool Posts
- 2 Straight Tool Posts
- 6 Cultivating Steel No. 1156
- 6 Tool Post Clamps
- All required bolts and nuts.

"Walsh" Specifications

**Engine:** Standard. Four cycle, one cylinder, 3 1/2" bore x 3 1/2" stroke with N.A.C.C. rating of 2 1/2 H.P.

**Transmission:** One speed, spur gear type. All gears cut, completely enclosed and automatically oiled.

**Crank Case:** Grey iron—ribbed and ventilated. Joining surfaces machined.

**Crankshaft:** Drop forging. Heat treated, counter balanced and ground to size.

**Cylinder:** Grey iron, tungsten bored.

**Piston:** Aluminium alloy, ground to size.

**Connecting Rod:** Forging, babbitt lined bearing. 7/8 x 7/8.

**Main Bearings:** Moneine patented sinter process, size 7/8 x 7/8.

**Clutch:** Full releasing, three jaw type. Cannot slip or drag.

**Cam Shaft:** Steel levers with ratchets, at ends of drawbar. Adjustable.

**Tool Posts:** Steel, bulldozed to shape. Adjustable in all directions.

**Tools:** Hand or horse drawn type.

**Belt Pulley:** 10" diameter x 3" face. Runs at 450 to 600 R.P.M.

**Width:** 34 inches.

**Height:** 36" to top of gas tank.

**Length:** 58" over all.

**Weight:** 440 pounds.

**Special Attachments**

The many extra attachments which can be used with "Walsh" Tractors are shown on pages 42 and 43. They are, of course, so built as to be quickly and easily attached and include the 7-inch mouldboard plow—the 8 or 10-inch discs—the harrows—the choppers—which may be used singly or in gangs of two or three seeder—the sickle bar mowers—the belt pulley, the snow plow, and cart for hauling. Also on page 46 are shown the wersing and cultivating shovels generally used for garden work. They attach to the Walsh tool posts with a single bolt.

**Floating Tool Carriage**

The Tool Carriage for the Standard "Walsh" is suitable for both between and astride the row work.

It includes:
- Complete Double Draw Bar
- Special Tool Control
- 2 Gauge Wheels
- Rear Staggered Tool Posts
- 4 Straight Tool Posts
- 6 Cultivating Steel No. 1156
- 6 Tool Post Clamps
- All required bolts and nuts.
Standard "Twin"

A GREAT part of the progress which has been made in broadening the field for small tractors is based on the ever widening assortment of tools which have been developed. In the beginning, garden tractors were merely light cultivating machines; but today with increased power and capacity, their field covers the full scope of small-farm operations.

It has always been a Standard ideal that Standard Tractors should be completely all-purpose machines, and with modern equipment the range of work which can be handled with a STANDARD "Twin" is practically limited only by the needs of the owner. The equip-

and Equipment

ment here illustrated is not meant to be entirely complete (See order blank), but rather to show the wide selection of implements, now available for use with STANDARD "Twins."

Plowing, of course, is of major importance and the "TWINS," with 5 H.P., 2 cylinder engines, handle the 10-inch plow, through heavy going, in a manner to meet the most exacting requirements.

Discs come in 8, 10 or 12-inch size. A set consists of two sections of three discs (3 or 4 discs on 12-inch)—and at straight open field discing, a "TWIN" with 12-inch discs will cover six acres in a day.

Mowing—either hay or lawns—is a material item on many small farms. The 50 inch "Twin" Sickle Bar is power driven, and cuts five to six acres per day. Height of cut is adjustable for the needs on both suburban lawns and rougher fields. Separate clutch permits moving the tractor without running the sickle.

All Purpose Machines

Opening furrows or spreading fertilizer, hauling loads, digging potatoes, or planting corn and cotton are regular STANDARD "Twin" jobs. And, of course, the "TWINS" can handle all the usual field operations—harrowing, seeding, cultivating, hilling up to the plants, and the like. They are truly all-purpose field machines, and with belt pulley at stationary jobs, their sturdy 5 H.P., 2 cylinder engines deliver the same reliable service all year round.
Two Cylinder Power and

Two Cylinder Power and

Enlisted Gear Construction

Enclosed Gear Construction

where an extremely slow speed is desired. On

5 H.P. Engine

With their 2 cylinder, 5 H.P., N.A.C.C. engine, the Standard Twins are indisputably in the top power class among garden tractors. They have a capacity, and a stamina and an ability to conquer the toughest conditions which will bring joy to the heart of the most exacting owner and they always have a margin in reserve for the hills, the hard packed spots, and the baked ground of late summer. The “TWIN” engine, with 2 cylinders of 2½-inch bore by 2½-inch stroke, carries a full 5 horsepower rating by the strict N.A.C.C. mechanical standards. Full enclosed valves, ample bearing sizes, hardened and ground cam shaft, positive gear-driven timing, counter-balanced crank shaft, and accurate machining of all interlobating parts are typical of the quality which is built into Standard Twins. The cylinders, of course, fire alternately, which gives twice as many power impulses as on a one cylinder engine, and consequently provides double the smoothness in operation.

At the side are illustrated some of the important parts that go to make a Standard Twin Tractor and on the opposite page an illustration showing how these parts match together inside the dirt proof housings. Note their sturdy size and their precision workmanship—and remember always that Standards are not assembled machines, but on the contrary, complete tractors built to give a complete service.

2 Speeds and Reverse

Because a tractor of this size often has to cover a lot of ground, the “TWIN’S” have a 2-speed transmission (selective type) and a reverse. Low gear is generally used for extra heavy plowing, or for very close weed-
Two Cylinder Field Operation

OUT on the job—that's where the STANDARD "Twin" proves its merit. Take hold of the handles of this remarkable machine, flip in the clutch and you are away to a new experience in small tractor operation. Speed, plenty of it—power, and to spare—and a smooth, steady, forging along that whips the hardest tasks or the most stubborn soil conditions. STANDARD "Twins" are expected to deliver a superior service, and they live up to that expectation in a most convincing way.

Power for Heavy Plowing

Do you have heavy sod or hard packed ground to break? Hitch on the 10-inch plow and the STANDARD "Twin" will turn it, in the same heavy going as a big farm horse—and at as fast a speed as you care to walk. Or perhaps the job is plowing a good sized field of stubble ground. Then shift into high gear, and hustle along at a rate which covers 2½ or 3 acres in the day.

A Small-Farm Tractor

For stubborn jobs the "TWIN" offers the speed and capacity for heavy work—a constant surge of honest power for the emergencies.

Actually, a STANDARD "Twin" is rightly called a small-farm tractor.

Easy To Handle

STANDARD Tractors are easy to handle, which is an essential quality in a modern garden tractor. The features of construction which combine to produce this easy handling are many, but they are based principally on the high wheels, which roll over the ground easily—the balance of weight, whereby the weight of the engine is located forward of the tractor axle—the full releasing clutches, so that there is no clutch drag at any time—the free running differentials, which permit one tractor wheel to run faster than the other, when turning around or steering along crooked rows—and on the heavier Twin Models, the power turn brakes whereby one wheel can be slowed down or completely stopped, in which case the other wheel continues to run on around in a circle, to make the turn with the stopped wheel as a pivot.

Full Releasing Clutch

By a full releasing clutch, engineers mean that type of clutch where the contact members are completely separate, when the clutch is thrown out—so that there is no friction drag as is common on expanding shoe or cone type clutches. This brings free rolling of the wheels when out of gear and positive smooth action when under load.

Free Running Differentials

Standard Differentials provide free running of either tractor wheel just the same as does the differential in an automobile. This permits either wheel to overrun the other wheel or to overrun the engine speed and thus enables the operator to guide his machine quickly along the irregularities of a row or to swing clear around, as with a two wheeled cart. It is perhaps the most important reason why Standards are so easy to handle.

Power Turn

On Twin Models, because of the additional weight, it is sometimes advantageous to use the power of the motor in turning around. This is done with two small levers on the handles, which actuate brakes on each wheel. Thus as one brake is applied, that wheel is slowed down or stopped and the other wheel runs right on around to make the turn.
proper equipment is an important help in getting the most out of any piece of machinery—and in garden tractors it is important that such equipment be correctly designed, so that it attaches to and works with the tractor, as a single operating unit. The equipment available with STANDARD “Monarch” Tractors, provides a variety to handle the whole field of small-farming work.

The 8-inch plow is a steel plow, with renewable share and high full mouldboard—and the “MONARCH” Plowing Outfit includes the hand lever depth control which provides adjustment in ¼-inch graduations.

Dicing is a leading field task, and in small-tractor work, many users like discs for cultivating as well as for seed bed operations. The discs are in 8, 10, 12-inch diameters and are made in two sections of three discs to a section (12-inch discs in either 3 or 4 per section)—so they may be spread apart to work astride a row or set close for working between rows, or at open field discing.

Standard Tractors provide power units that can handle lawnmowing as well as field jobs; and such equipment is quickly interchangeable.

Sickle bar mowers—40-inch cut—are pushed ahead of the tractor and are power driven, with a special clutch so that the cutter bar may be thrown out of gear when moving from field to field. For suburban lawns which are not constantly watered, the sickle bar makes a most practical lawnmowing outfit as well.

The 4½-foot spike harrow has a steel frame with 24 steel teeth, and these teeth are adjustable for deep or shallow working. Acme harrows are also supplied in 3½-foot width.

Seeders may be used either singly, or two or three or more at a time. Standard seeder hitchs permit full floating of each seeder, as well as complete adjustment for width of rows.

Beam type potato diggers, middle husters, corn and cotton planters, snow plows, hauling carts, etc., are some of the further assortment of tools commonly used with STANDARD “Monarchs,” and of course they handle all the usual run of weeding, hill and cultivating shovels.
“Monarch” Features That Insure Long Service

Mechanically, the STANDARD “Monarch” is a fine piece of machinery. The engine, transmission, clutch, final drive, etc., are all completely enclosed and run in oil—which eliminates any exposed gearing, belts, chains, pulleys, and such other make-shifts as were used in early day gas engines and power machinery. Such dirt proof construction is a vital element in obtaining smooth operation and long life under the dusty conditions of the field.

3½ H.P. Engine

The engine itself is a heavy duty, one cylinder air cooled engine, of what is called a four cycle type. This means it is of the same kind as automobile, truck, or tractor engines, and it is a quality engine, built especially for the STANDARD “Monarch”; not a common farm engine belted or chained to a pair of wheels.

The size of the cylinder is a 3-inch bore by 3-inch stroke—N.A.C.C. rating 3½ H.P. The piston has three rings and an oil groove, and both cylinder and piston are machined to mechanical accuracy of 1/1000 of an inch.

No Belts, No Chains All Enclosed Gears

Transmission is one speed, spur gear type. All gears are steel gears—are cut gears—are hardened gears—and all run on hardened and ground shafts. The entire transmission, together with clutch and final drive, is dirt proof enclosed and is constantly lubricated by engine automatic oiling system.

Full Releasing Clutch

The “Monarch” clutch is full releasing—the same as all STANDARD clutches. When thrown out, the clutch contact members are completely disengaged, so that the wheels can roll absolutely free. On a STANDARD clutch there is no friction drag when swinging the tractor around, or when steering along the row.

Standard “Monarchs” in the Field

As general purpose, small-farm machines, Standard “Monarchs” have for years been “the accepted measure” of Garden Tractor value. They are the most popular size of walking tractor, with an enviable reputation for long life. They have Power and Capacity for real field work, still the accuracy for the most careful tasks.

They plow, harrow, cultivate and, with their adjustable tread, quickly adapt themselves to all small-farm field operations. They weed onions in 12-inch rows or hill corn 3½ feet apart. They will plow orchards where the going is rough and heavy, or they will work astride two narrow rows of tender lettuce—and at all the tasks in between they will deliver an honest, full day’s value.

Small Farm Capacity

Standard “Monarchs” are more than garden tractors. Of course they are not—and are not intended to be—big field machines; but they have a capacity far beyond what the word “garden” might imply. They handle the small-field jobs equally with the garden operations, and over the last twenty-five years the ever improving “Monarch” Models have been a definite force in proving that a modern garden tractor may be truly an all-purpose, small-farm machine.
The "Walsh" Model

The equipment offered with "Walsh" Models is correctly built and correctly proportioned for this size of tractor — and in each case the hitch is made so that the implement attaches to the tractor quickly and conveniently.

The Walsh plow has a 7-inch cut, and the plowing outfit includes: the plow itself, the steel beam, the 9-inch rolling coulter, the special pivot hitch and the pin-and-socket forward elevis. The plow is steel — with renewable share, polished mouldboard, and long flat landside.

Discs for the "WALSH" are made in 8 and 10-inch sizes. They are adjustable for both angle and depth of cut and are made in two sections of three discs to a section, so that each section may be located as desired on the tractor drawbar.

Mowing equipment includes both the sickle bar for hay, weeds, or tall grass—

and Equipment

or for lawn-mowing operations on suburban places. The sickle bar cuts 3 feet, is located in front of the tractor, is power driven, with separate clutch so that the tractor may move from place to place, without the sickle running.

Harrowing or seed bed operations may be done with either spike tooth or Acme harrows—or several regular cultivating steels set close together on a long draw bar make a very satisfactory harrow.

Standard Seeders are positive feed. They give accurate spacing of the seed drop and handle all garden seeds as well as beans and corn. Fertilizer attachments, with 2-quart capacity, to fertilizer immediately on the planted row, may also be supplied with the seeders.

A two-wheeled cart is a convenient accessory for odd hauling jobs around the place, and the illustration shows how such a cart can be easily made. If desired, we will supply the wheels (26-inch diameter) and axle and hitch so that only the box need be built.

The weeding hoes, steels, hillers, furrowers, etc., shown on page 46, illustrate the wide variety of cultivating tools that may be used with "Walsh" Models. They attach to the tool posts with plow bolts and are adjustable in every direction on the Standard double draw bars.
The "Walsh" Is Fully Enclosed and Dirt-Proof

The motor is the heart of any tractor and the Walsh motor—built specially for this tractor—is thoroughly competent to live up to its exacting tasks. It is an entirely modern engine, built along the fully enclosed plan by which the engine, transmission gears, clutch, etc., are built together in one complete, fully housed, dirt-proof unit. This construction completely eliminates all outside dirt collecting gears, belts, chains, sprockets, etc., which eat up power and wear rapidly.

The Walsh engine is of one cylinder, four cycle type, with 2½ horsepower, N.A.C.C. rating—air cooled by positive fan in fly wheel. Bearings are Marinite process, sintered bronze, held to a mechanical tolerance under 1/1000 of an inch. The crankshaft is drop forged, counter balanced, heat treated and ground to size. Cylinders are tungsten bored. Pistons heat treated and ground. All gears are cut gears, of large size, made of quality material and accurately spaced to mesh exactly on the pitch line.

**Positive Lubrication**

And the entire machine—engine, clutch, transmission—is fully and automatically oiled, by a force pump and circulating splash system. This insures a minimum of friction and a maximum of long life.

Positive lubrication can only be obtained with a full enclosed construction, because the oil must be circulated inside a housing which is not only dirt-proof from without, but tight from within.

**No Belts, No Chains — All Enclosed Gears**

Below are shown some of the major parts which go to make up a STANDARD "Walsh." Note their sturdy design and ample size. Note the long bearings, the cut gear teeth, and their fully machined finish. Any piece of machinery is only as good as the parts which go into it and years of experience in the field have proved that the parts which go into "Walsh" Tractors are made to last.

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Time Proved Field Performance

Wish to represent the "Walsh" Models as primarily smaller area tractors; yet even so, they are far more than back-yard garden machines, and under favorable circumstances they will accomplish a surprising amount of heavy work. Of course these "WALSHES" haven't the power nor the capacity of the "Twin" and "Monarch" Models, but many hundreds of Walsh owners, who have less extensive acreage, have found these sturdy, low-priced Models the complete solution to their power problems.

**Plowing**

With the 7-inch plow they will turn over a clean, well covered furrow, to moderate depth, under any reasonable conditions, and with the discs or harrow or cultivating steels they go into the field and deliver a thorough and workmanlike farming job. They handle weeding and close cultivating work, equally as accurately as the bigger machines, and for the heavier tasks they have the strength of their husky 2½ H.P. engines.

**Adjustable Tread**

The adjustable tread and unobstructed clearance is a feature of Walsh Tractors, as well as of all other Standard Models. With regular equipment, it allows an adjustment of from 16½ to 27 inches between wheel centers, and special axles can be had to give any width of tread desired.

Also the "WALSHES" handle the mowing jobs—both hay and lawn; seeding in one, two or three rows and with belt pulley they are a reliable source of year-around stationary power. Hauling loads, stretching wire, spreading fertilizer, building beds are other odd jobs where Walsh convenient Power readily fills in.

**Easy Handling**

"WALSHES" are easy to handle and accurate to control. They are handy to adjust and quick to change from one implement to another—and with power that will win your confidence and respect, they fully live up to their reputation for "time proved field performance."
**Draw Bar Equipment**

OFTEN in farm implement construction, the tractor and the tools are treated as two separate machines. Theoretically, this distinction may be right, but to practical purposes, the two must work in such close harmony that we feel they should be designed so as to operate as one machine.

The tools on STANDARD TRACTORS are carried by a draw bar, directly behind the tractor wheels. The tools themselves are attached by tool posts. The draw bar fastens to the tractor, at the center of the axle with a clevis hitch, thus the whole is quickly removable.

**The Trailing Double Draw Bar**

(See Page 48)

The STANDARD draw bar is so made that it can be used either trailing or independent. In working with draw bar trailing, the tools are steered by the direction the tractor pulls them, as with a horse cultivator. With independent tool steering (See Page 48), the tools themselves may be guided along the variations of crooked rows, by the special tool control handle, independent of the tractor.

**Easy Tool Adjustment**

The draw bar assembly is really two separate draw bars, working together, one 9 inches behind the other, and the tool post clamps are so made that the tools may be easily and accurately adjusted in any direction, at any place on either or both of them. You have twice the draw bar space common to most garden tractors (See Page 47).

**Depth Control**

The depth of tool working is regulated by gauge wheels, which on “Walsh” Models are set screw adjusted, and on “Monarch” and “Twin” Models, hand lever controlled.

**Horse Drawn and Hand Type Tools**

Selection of proper tools for any given work is largely a matter of personal preference. There is no main kind of tools—so-called horse tools and hand tools. The names are descriptive—horse tools being originally designed for horse work and hand tools for hand push hoes.

STANDARD TRACTORS are made to handle either kind, but we strongly recommend horse type tools. Everything can be done with them that can be done with hand tools, and also they are strong enough to do the heavier work of which Standard Tractors are capable.

**Mouldboard Plows**

The plow recommended for each STANDARD Model is the correct size for that particular tractor, and a size which that model will handle at a proper speed for a smooth well covered job. All plows have renewable steel shares, with full mouldboards and long landsides. They have steel beams, with high throat, and the plowing equipment includes a rolling coulter, steel clevis and pivot hitch, complete for attaching to tractor. The “Walsh” plow is 7-inch cut—the “Monarch” plow, 8-inch cut—and the “Twin,” 10-inch. Depth control on the “Walsh” is by pin and holed clevis, while “Monarch” and “Twin” Models have hand lever adjustment.

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**A Wide Variety of Attachments**

ON THIS page are shown a few more of the wide variety of implements in general use with the Standard Tractors. Different growers have their individual ideas as to the kind of tools and the arrangement of them, and these illustrations show some of the most generally used among them.

**Fig. 1** illustrates the 4½-foot spike harrow which comes complete with hitch.

**Fig. 2** is a potato digger. This tool is substantially the same as a middle-breaker but with tines to lift the tubers.

**Fig. 3** illustrates a beam furrower or middle-breaker. It is practically the same as a double mouldboard plow and throws the furrow out both ways.

**Fig. 4** shows 3-inch extension rims, which also includes the hogs for them. They may be had in pairs or singly.

**Fig. 5** is a crowned belt pulley.

**Fig. 6** is a spring tooth cultivator. These spring teeth attach to tractor draw bar the same as tool posts.

**Fig. 7** illustrates the seeder. It gives positive seed spacing, handles all garden seeds including beans and corn, and may be supplied with or without fertilizing attachment.

**Common Tool Set Ups**

These tool arrangements show how the floating Double Draw Bar with gauge wheels removed, and tools set up for several common cultivating conditions.

**Fig. A** shows six steel, set for work ariade one row, Two forward tools are on the front draw bar. Two middle tools are also on front draw bar. The rear tools are on back draw bar—thus giving stagger for trash clearance.

**Fig. B** is a set up of five steel, for work between rows. Three tools are on front draw bar and two on the rear.

**Fig. C** Here are shown weeding hoes, sweeps, and steel, set for weeding ariade one row.

**Fig. D** This illustrates weeding between two rows. The hoes are at ends of front draw bar, working next to the row.

**Fig. E** Here is an arrangement for weeding both sides of two rows with two pair of weeding hoes.

**Tool Posts**

To handle all the various tools, there are needed but four kinds of tool posts. The straight No. 1978; rear offset No. 1979, which stagger the tool back; No. 1977 staggering the tool front; and side offset No. 4117, which offset tool to the side. No. 4117 is used only with weeding hoes. All are attached to draw bar by the same clamps and the tool is held to the post by a plow bolt.
The Floating and Trailing Principle
With Double Draw Bars

The Tool Carriage for all STANDARD Models, has Double Draw Bars for a wide range of tool location, and it both floats and trails. It trails to accurately follow the direction in which the tractor is steered and it floats to accurately follow the contour of the ground. This gives immediate action in guiding the tools along the rows; and controlled uniformity in cultivating depth.

In working along the rows the operator simply guides his tractor as he would guide a hand wheel hoe or one horse cultivator, and the tools trail behind to automatically follow in the same direction that the tractor is going.

Standard Tractors are the closest working and easiest operated cultivating machines made.

Tool Lift Levers
To raise or lower the tools and adjust the cultivating depth, the operator merely pushes the lever up or down; just as he would on any riding cultivator or plow, and of course, because each lever works independently, the tools on each side of the draw bar may be adjusted independently.

The maximum adjustment up, raises the tools completely out of the ground—a great convenience when turning at the ends of the rows or when moving from field to field.

Of course, the levers may be operated when the tractor is moving which eliminates any stopping to adjust the depth at which the tools are working.

Tool Lift Levers are included with the Tool Carriage for “Twin” and “Monarch” Models. On “Walsh” Models the gauge wheels are adjusted by set screws, though hand levers may be had at small additional cost.

Instant Clear Vision Tool Control
For those who prefer independent steering of the cultivating tools, the Tool Carriage also includes the clear vision Tool Control which gives instant and easy guiding of the shovels, independent of the tractor. It also maintains all the advantages of the STANDARD double draw bar, which provides twice the draw bar room for tool location and adjustment.

You will note from the illustrations how the operator always has a clear view of his row regardless of where his tools are working; and with the tool control handle he can instantly shift his tools to or from the row without changing the location of the tractor itself. This handle works directly on the double draw bar and is so located that the operator may walk either astride or beside the row.

The accompanying picture shows the tools shifted over to the left; but the tractor itself remains centered astride the row.

With STANDARD Tractors, the closest kind of weeding can be done.

Floating Tool Carriage

The Tool Carriages for all STANDARD walking models, are suitable for both between and astride-the-row work. They include complete double draw bars, independent tool control, gauge wheels, six tool posts, six tool post clamps, six cultivating steels and all necessary bolts and nuts. Also on “Twin” and “Monarch” they include the pair of Tool Lift Levers as shown in red on the accompanying illustration. On “Walsh” Models the regular tool adjustment is by set screw clamps; but Tool Lift Levers may be supplied with “Walsh” Models at moderate extra cost (See order blank).

This is an equipment suitable for all general flat cultivation and wid tool posts to handle all common makes of steels.

Guarantee
All STANDARD TRACTORS—the “Twin”—the “Monarch”—the “Walsh” are unconditionally guaranteed for one year against any defect whatsoever in material or workmanship.

Economy—Ease—Convenience
The value of a garden or small farm tractor should not be measured solely in economy or the time and labor saved. Convenience is equally important. With a tractor the work is done at the right time because it is easy to do it. Every truck farm or small acreage has dozens of odd cultivating jobs coming up all the time, and if a man has to spend half an hour getting a horse out of the barn and hitched up, he will let them slide, and the crop suffers. With a STANDARD TRACTOR he merely gives the engine a crank and so he is ready for work, which means he does those short jobs at the right time because his STANDARD makes it easy.

Eats Only When It Works
On a small place or a nursery or flower garden, keeping a horse is a disagreeable burden to say nothing of expense. A horse must be fed, watered, cleaned, bedded down, etc., whether he is working or not, and this means that every day throughout the year you have to be there to care for him. Why not have a Standard Tractor—Power Machinery—which you can shove under a shed and leave, which quits eating as soon as it quits working and is ready for the field with a twist of the crank?
Why a Standard Tractor?

In selecting a garden tractor, you will have to weigh all of the features of size, power, construction and field operation; and compare their advantages to your present method of doing your work—and you will have to decide on their adaptability to your particular needs. In doing this, you may ask that you consider STANDARD TRACTORS in the following light:

1st—The Standard Line includes machines of proper capacity, to fill the requirements of every size and type of small farm.

2nd—Standard Tractors have a proved record for dependable performance in the field.

3rd—Standard Tractors also have a proved record for quality construction and long life.

4th—Standards are built on the complete manufacture plan. That is, they are not assembled machines with an engine bought from one maker and a transmission bought from another; but on the contrary, complete tractors—complete from engine to final drive—built by one manufacturer, with facilities and equipment to build complete tractors.

5th—All Standard Models are enclosed, automatic oiling and gear driven.

6th—They have large wheels, high clearance, and adjustable wheel tread.

7th—Their tool carriage has double drawers and independent tool control.

8th—They are compact, sturdy and easy to handle.

9th—They operate an extremely wide range of equipment, including: plows, harrows, discs, mowers, seeders, hilling carts, and all manner of cultivating shovels.

10th—They have Power for real work.

11th—They are honestly and conscientiously built, and every inside, unseen part is just as carefully made and as thoroughly inspected as the most outstanding feature on the surface. Standards are sound quality, clear through.

In Conclusion

In the foregoing discussion of garden tractors and their use, and of STANDARD TRACTORS in particular, it has been our effort to present fairly, thoroughly and accurately the field of usefulness for a garden or small-farm tractor. All statements have been carefully considered, and we unqualifiedly guarantee Standard Tractors to be in every way as represented.

May We Serve You Further?
STANDARD
Garden and Small Farm Tractors
A Full Line
Sized and Powered for Every Type Small-Farm

THE "TWIN"
THE "MONARCH"
THE "WALSH"

Standard Engine Co.
Minneapolis New York

SOLD BY