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SUNSHINE

FARM IMPLEMENTS



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THE FARM SMITHY AT DRUMMARTIN

Where the first Sunshine Harvester was made by Hugh Victor McKay
in the year 1884

A separate Catalogue is issued giving a brief history
of the
SUNSHINE HARVESTER WORKS
and its Manufactures.

A copy will be sent to any address on request.



Illustrations in this Catalogue are approximate only



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H. V. McKAY PTY. LTD.

Sunshine Harvester Works

SUNSHINE (Near Melbourne) AUSTRALIA

Manufacturers of

Farm Machinery

HEAD OFFICE AND WORKS - - - SUNSHINE

Telephones : Sunshine 8, 66, 114, 115, 116, 117, 118
Registered Two-Word Address for Cables and Telegrams :
"Sunshine, Melbourne." Bentley's Code



Agency in Great Britain : Aldwych House, London, W.C.2.



Branches in Australia :

27-39 George St. West, SYDNEY, New South Wales
Telegrams : "Sunshine, Sydney." Telephones : M 4527 (2 lines)

102-105 North Terrace, ADELAIDE, South Australia
Telegrams : "Sunshine, Adelaide." Telephones : 5940, 5941

Cor. Murray and King Streets, PERTH, West Australia
Telegrams : "Sunshine, Perth." Telephone : A 5161

664-666 Bourke Street West, MELBOURNE, Victoria
Telephone : Central 4354



Distributors in Queensland :

H. V. McKay (Queensland) Ltd., Stanley Street,
SOUTH BRISBANE

Telegrams : "Sunshine, Brisbane." Telephone : J 1596



Agencies in all Agricultural Centres throughout Australia

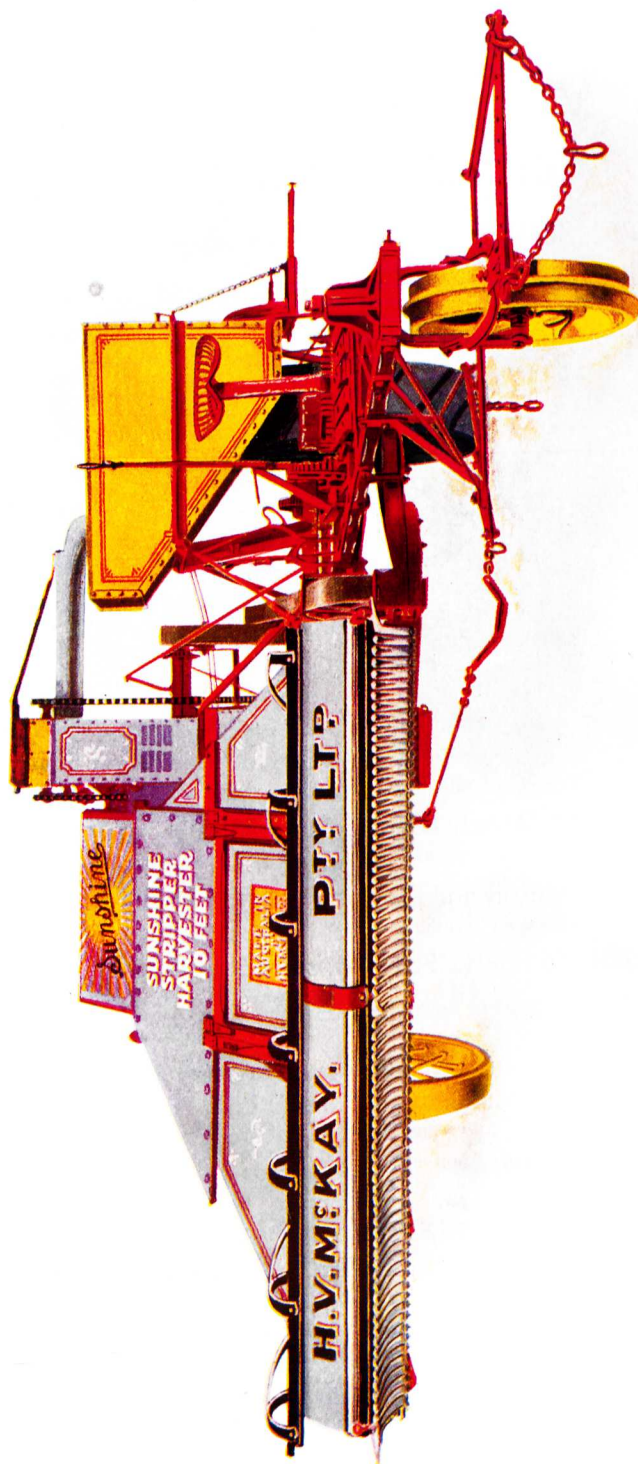
Price Lists posted to any address on request.

Sunshine is just $7\frac{1}{2}$ miles from Melbourne, and is reached in 20 minutes by electric trains from that city (Flinders Street or Spencer Street Stations). Farmers visiting Melbourne are cordially invited to inspect the Works, which is the largest manufactory of Farm Implements in the Southern Hemisphere.



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THE SUNSHINE STRIPPER HARVESTER



Front View of 10ft. Machine

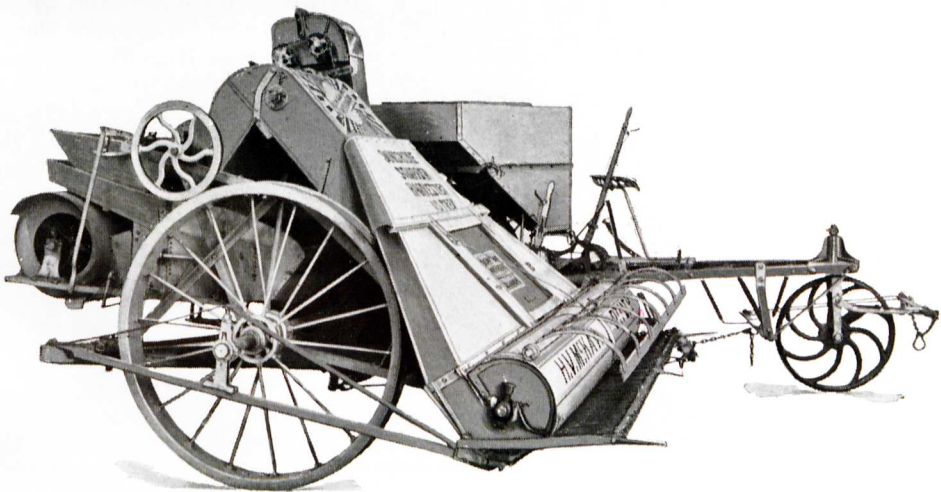
The Sunshine Stripper Harvester

Invented by H. V. McKay in 1884, this machine came into full vogue towards the end of last century, and for upwards of 30 years it has commanded a large trade in Australia, and has also been exported to oversea countries in large numbers. Without fear of contradiction, it is claimed to be the machine which made it possible to harvest grain economically, and which put Australia on the map as a wheat-exporting country.

It is made in 6-ft., 8-ft., and 10-ft. sizes, and is drawn through the ripe standing crop by a team of horses or a tractor. The area harvested per day is from 10 to 20 acres, varying with the size of the machine used, the speed of the team, and the nature of the crop. Besides wheat, the machine is guaranteed for oats and barley, and it is less frequently used for other crops as well. The heads of grain only are taken off by the machine, leaving the straw standing. The heads are whipped off by the revolving beaters, to which they are guided by the comb. Over the comb is a roller, adjustable to many positions, which depresses the grain so that it arrives at the beaters at the best angle. The heads of grain are partly thrashed by the beaters (entirely thrashed in hot, dry weather), and are then taken by the broad elevator and delivered into the peg drum, where the thrashing is completed. Thence the grain and chaff drop to the oscillating riddles. The blast from the fan blows away the chaff. Any imperfectly thrashed grains are rejected by the lower riddle, and directed into the seconds elevator, which returns them to the peg drum for further treatment. The clean grain passes through the lower riddle, reaches the grain elevator and passes on to the large grain box, whence it is drawn off into bags, when the machine stops momentarily for that purpose.

Thus, hour by hour, the machine entirely completes the harvesting of a portion of the crop, turning it into clean, winnowed grain, all ready for the market.

A separate Catalogue, with illustrations, will be posted to any address on request.

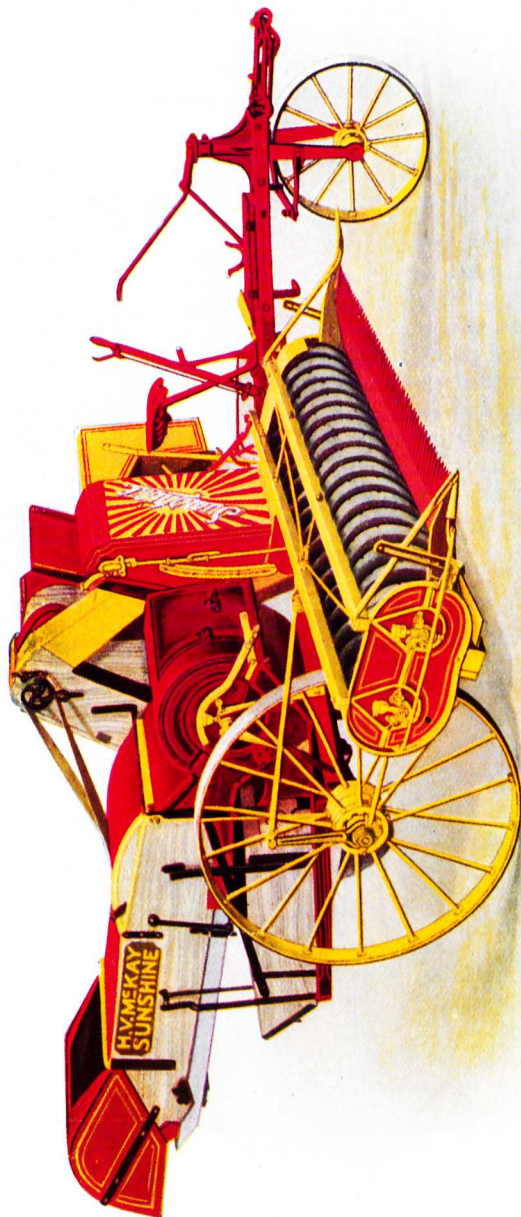


Offside view. Comb right down—yet level. No waste of grain. Note the easy slope of broad elevator

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

THE SUNSHINE HEADER HARVESTER

(H. S. Taylor's Patents)



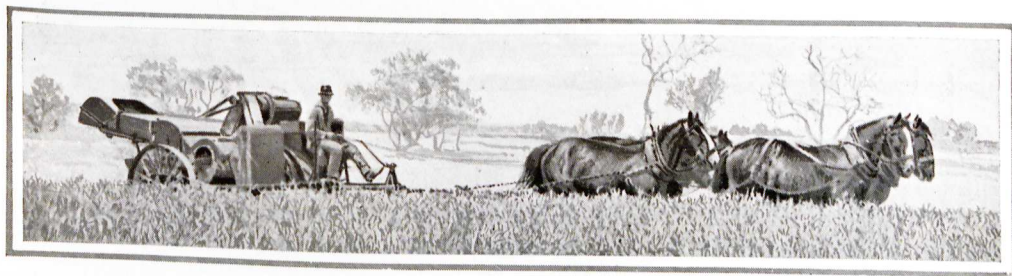
Offside View of the 8-ft. Machine

The *Sunshine* Header Harvester or Reaper Thrasher

(PATENTED)



Clean standing crops are comparatively easy to harvest under normal Australian conditions. But many crops are infested with thistles or other heavy weed growth; others are tangled or flattened by rain storms occurring just before harvest; and conditions such as these demand this special machine—a machine which will rescue the grain, no matter what is the condition of the crop. Before the advent of the Sunshine Header Harvester, crops which were storm-flattened were a dead loss; but this machine, equipped with special crop-lifters, picks up the down and tangled mass, cuts, thrashes and winnows it, and rescues close upon 100 per cent. of the grain. It is no exaggeration to say that millions of bushels of wheat in down crops, otherwise irrecoverable, have been saved by these machines. On another page a photograph illustrates the machine tackling a wheat crop which is absolutely flat on the ground. A separate cut shows the crop-lifting attachment used in such circumstances.

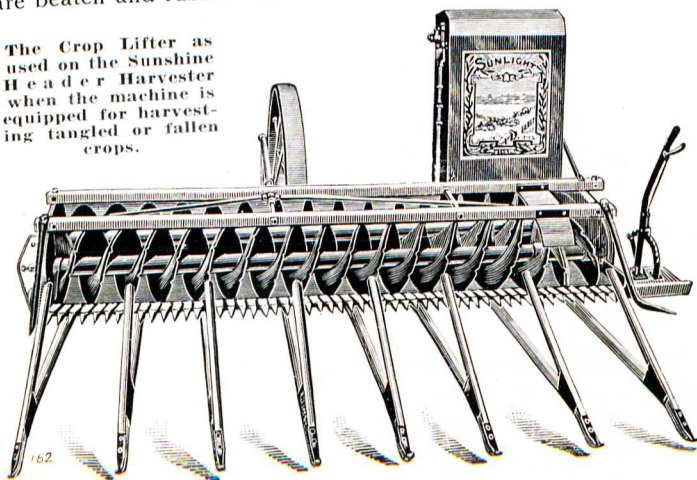


The Sunshine Header Harvester is made in 6-ft., 8-ft., and 10-ft. sizes, to be pulled by a team of horses or a tractor. From 4 to 6 horses are needed, according to soil and crop conditions, or a tractor of medium power. It is equipped with a comb, which is easily raised and lowered by a lever

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

to suit tall or short crops, and keeps parallel at all heights. Working under the comb is a reciprocating knife, which cuts off the straw a few inches below the head. As the cutting is effected, the heads and straw are caught by the spiral conveyors and delivered to the elevator. (No canvas conveyors are used in this machine. The spiral conveyors are of steel, and will last indefinitely with ordinary wear.) The elevators deliver the mass into an English-type thrashing drum, in which all grains are beaten and rubbed from the heads.

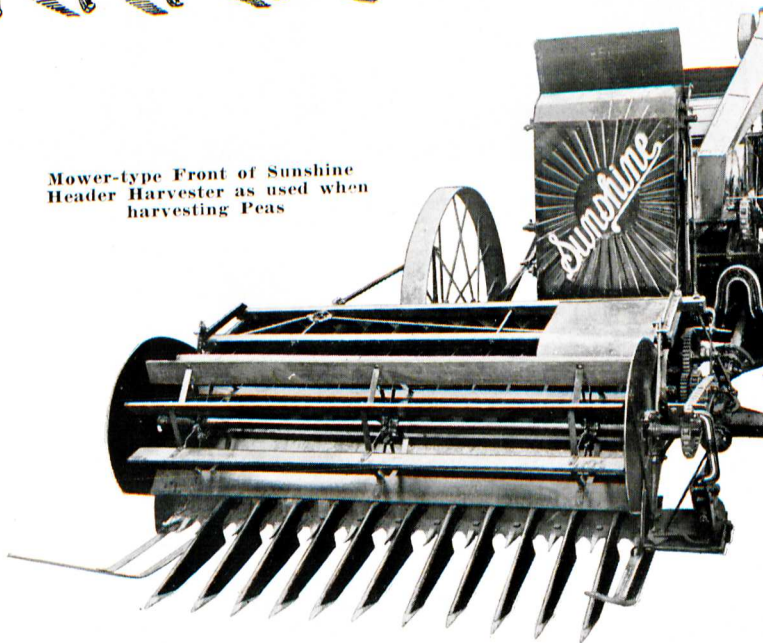
The Crop Lifter as used on the Sunshine Header Harvester when the machine is equipped for harvesting tangled or fallen crops.



The mass then passes to the straw walkers, which eject all the straw and much of the chaff. Falling to the riddles, the remaining chaff is blown away by the blast from the two fans (which are mounted on the same spindle as the drum). Any imperfectly thrashed grains are rejected by the bottom riddle, and pass to the seconds elevator, which returns them to the thrashing drum for further treatment. The clean grain passes through the bottom riddle, and the grain elevator takes it to the rotary screen.

There the weed seeds and any broken grains are separated, and pass to the seconds box, while the clean grain of normal size is carried on and deposited in the large grain box. At intervals the machine is stopped momentarily while the grain is run into the bags. Thus hour by hour the machine completes and finalises a portion of the work, and gives the farmer a tangible security in the shape of cleaned grain, bagged, and ready for the market.

Mower-type Front of Sunshine Header Harvester as used when harvesting Peas



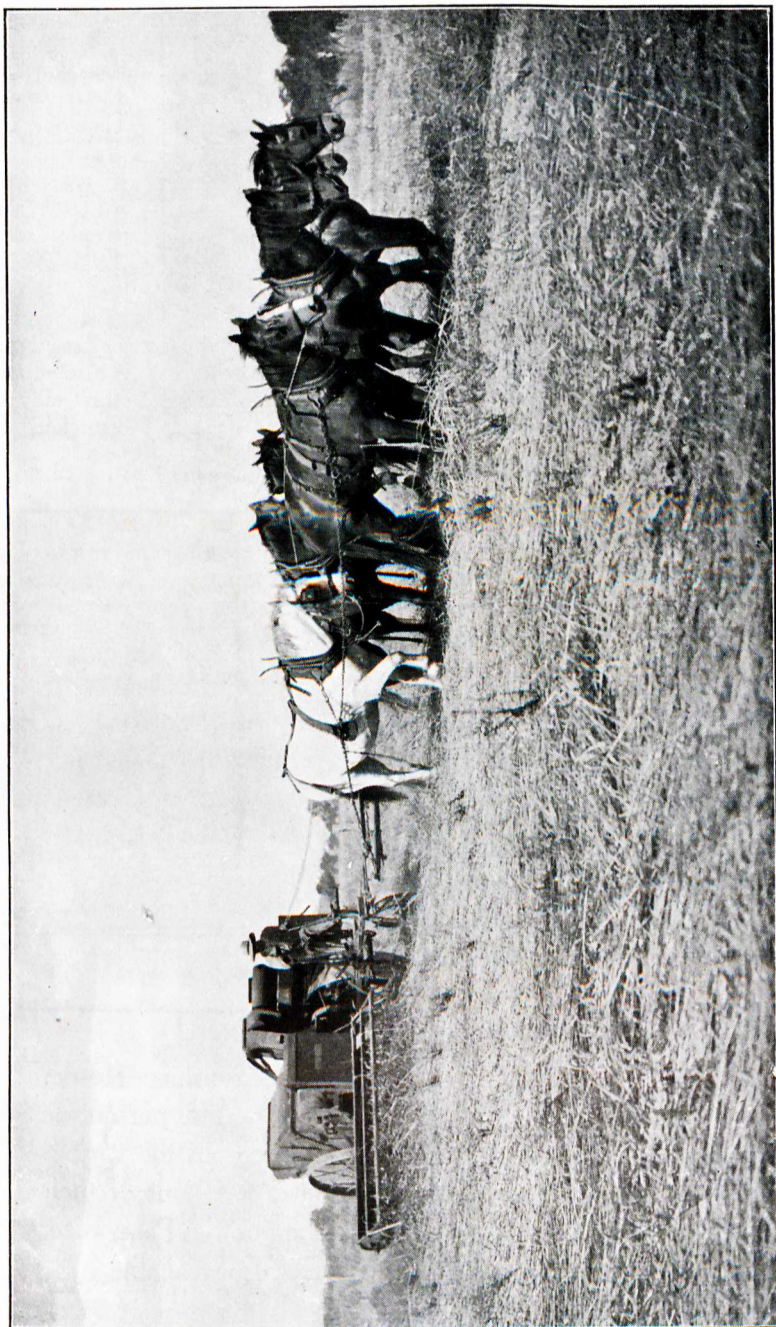
The Sunshine Header Harvester has its largest use in wheat, oats, and barley, but it is also employed to harvest lucerne seed, millet, rice, and other grains.

It is further employed to quite a considerable extent in the harvesting of peas. For this work some modifications are made in the machine, including the addition of a special front, with lifters and reel, as shown in a separate picture. In this guise the machine takes care of the heaviest crop of peas, recovering almost 100 per cent. of grain with a negligible amount of cracking. The cost is but a fraction of that entailed under the old method of cutting, raking, carting and thrashing and wastage of grain is eliminated.

A Booklet, entitled "Profit in Peas," will be sent to any address on request.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

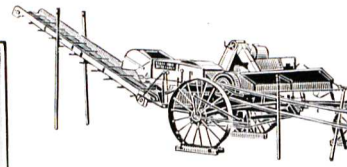
The Machine which Rescues the Grain from Difficult Crops



This crop stood over 5ft. high before the storm laid it flat. Ten bags of wheat per acre were rescued from it by the Sunshine Header Harvester



The Sunshine Header Harvester at work as a Stationary Thrashing Machine



Many farmers also use the Sunshine Header Harvester as a Stationary Thrasher, engine-driven, at the stack. With the usual front removed, and a feed table substituted, the sheaves are fed right into the thrashing drum, and up to 100 bags per day may be obtained from well-yielding grain. An elevator is also supplied, so that the straw may be conveniently restacked.

The Sunshine Header Harvester in rice. To cope with the conditions of soil and crop peculiar to rice, the machine is equipped with auxiliary power for operation of the mechanism. The great bulk of the Murrumbidgee rice crop is harvested by the Sunshine Rice Header Harvester, and it has experienced no difficulty in successfully harvesting crops yielding up to 160 bushels to the acre.



A separate 36-page Catalogue of the Sunshine Header Harvester will be posted to any interested person on receipt of request. It contains illustrations of the various mechanisms of the machine and full descriptions of their uses. Pamphlets descriptive of its operation in Peas, Rice, and as a Stationary Thrasher are also available.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sundump Chaff Saver



Dumping
the "Cockie"
Chaff

Saves the "Cockie" Chaff and Straw

Blown Out Behind the Header Harvester

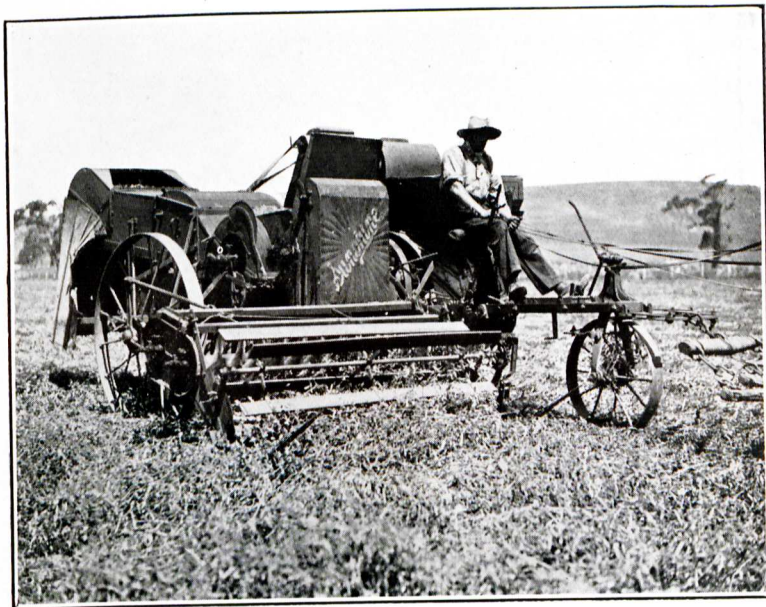
The Sundump (140 cubic feet capacity) is easily attached behind the Sunshine Header Harvester. All stays and bolts needed to attach it are included in its price. The driver pulls a cord to empty it. This is no effort, because it is spring balanced. It empties in a second, and automatically closes itself immediately, and begins collecting again. No stoppage! No delay!

The driver can see when the Saver is full, and the chaff and straw may be dropped in rows for ease in forking on to the wagon, and carting to the barn. Mixed with molasses, oil cake, etc., it makes splendid feed for any stock.

If the stubble is to be burnt, any remaining portions of the heaps form a nucleus for a good burn.

The Sunshine Pea Header- Harvester

The special Front for Pea harvesting can be attached to the standard type Sunshine Header Harvester and the farmer who grows Peas and Wheat, Oats, etc., in rotation is not put to the expense of purchasing two machines.



H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



THE SUNSHINE AUTO HEADER, 12-ft. Cut
Teamless. Tractorless. Four acres per hour. One Bag per minute

The *Sunshine* Auto Header

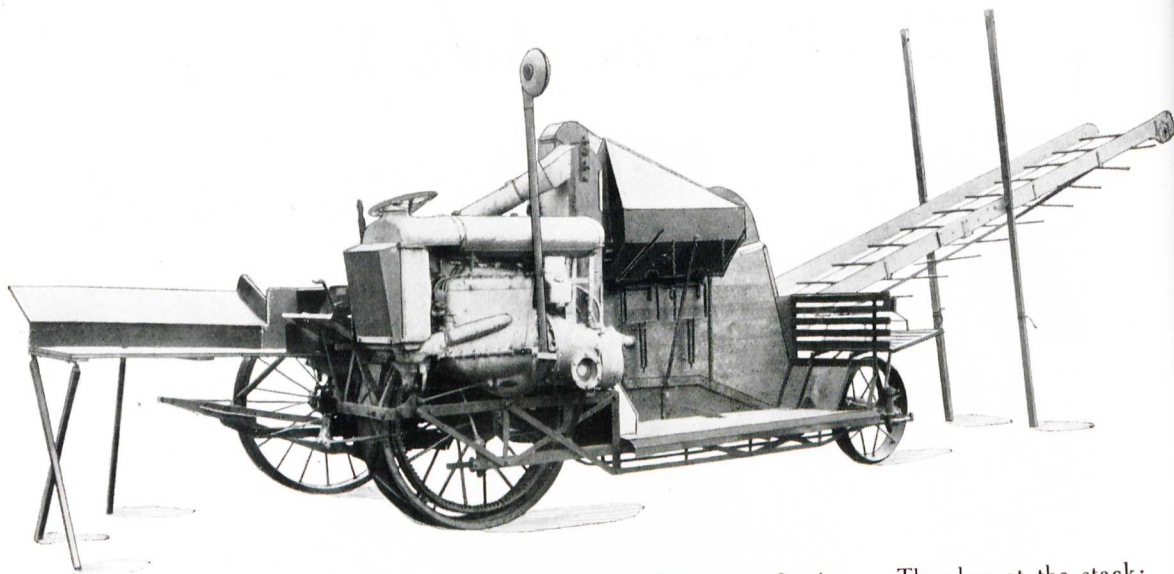


This is a self-propelled Header Harvester or Reaper Thrasher. A 4-cylinder tractor engine mounted upon it provides ample power to move it through the crop, and to drive the cutting, conveying, thrashing, and winnowing mechanisms. In actual field work it has harvested over four acres per hour, and collected the wheat at the rate of one bag per minute from a heavy crop. One striking departure from normal practice is noted by a glance at the front of the machine, which shows that the comb and cutting knife form the greatest width, so that the Header can cut its own track right through a crop without disturbing any grain outside of the 12-ft. swath which it cuts and thrashes.

It is a 3-wheel machine, the rear one being a tiller wheel. The operator, sitting in front, and at a good elevation, has a steering wheel at his hand, and can guide the machine just as easily as if it were a motor car, including backing. All the engine and mechanism controls are handy to the driver, who thus does the whole of the work except that needed for the filling and lowering to the ground of the bags of winnowed grain. There are no canvas aprons. The conveying is done by double steel spirals—a patented device. The spirals receive the heads of grain cut off by the knives, and take them to a centrally located steel elevator, which delivers into an English-type thrasher drum. The thrashed mass then passes to the walkers, which eject the straw, while the grain and chaff fall to the riddles. After winnowing, the clean grain is elevated to a rotary screen which takes out the weed seeds and broken grain, while the plump grain falls into the bagging box. One man, travelling on the bagging platform, attends to the filling of the bags, which are lowered from the machine ten at a time, causing but little delay to the work.

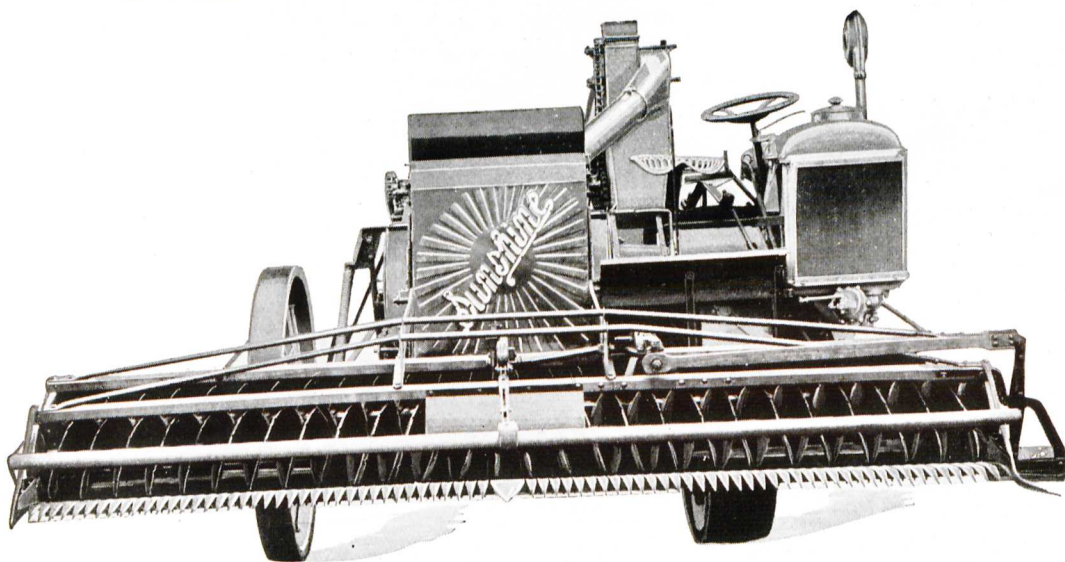
In this machine all the difficulties of team or tractor haulage are non-existent, and side draught is absolutely eliminated. There are no delays except those attendant upon fuelling the engine, lubricating the machine, and taking off the filled bags of grain. It is possible to harvest 50 acres in a single day. A harvesting machine works for but a few weeks in the season, but the engine of the Auto Header may be used for belt work throughout the year. The price is much less than that of a tractor and harvesting machine as separate units, and the man-power required is halved.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



The Sunshine Auto Header will also work successfully as a Stationary Thrasher at the stack; and for this purpose it can be equipped with a feed table, straw elevator, etc.

A separate illustrated Catalogue of the Sunshine Auto Header, descriptive of its mechanism and operation, will be sent post free to any interested person on request.



Sunshine Auto Header, 12 ft. Cut. Front View

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



THE SUNSHINE AUTO HEADER, 12-ft. Cut
 One man to drive and one to shift the bags

THE SUNSHINE REAPER AND BINDER

Specially Constructed
for Australian
Conditions



Rear View of the 6-ft. Machine

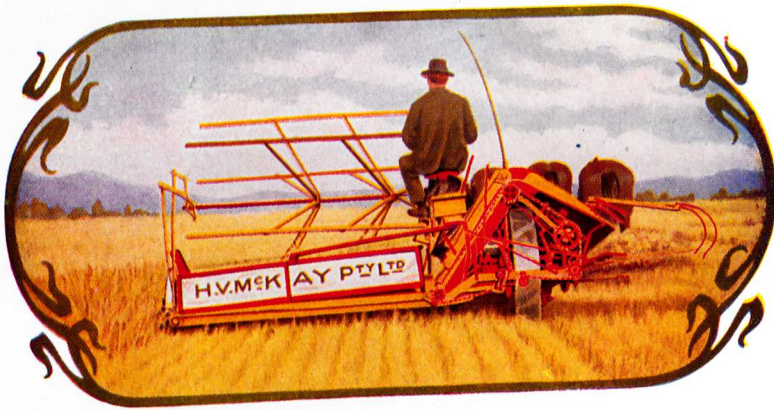
The Sunshine Reaper and Binder

The design and construction of the Sunshine Reaper and Binder are based on the inventions of famous British agricultural engineers, and this machine is not surpassed, in its class, by anything offered to the farmer for hay-cutting in any part of the world.

It is manufactured in 6-ft. and 8-ft. sizes. The 6ft. size has pole and swingletrees for 3 horses, while the 8-ft. has a two-wheel forecarriage with pole and swingletrees for 4 horses. Both sizes are equipped with a handy two-wheel truck device for transportation. Special features of the machine include:—

Sturdy main wheel. Tyre stability ensured by the provision of a stout, seasoned wood rim. Effective steel ground grips. Has caged roller bearings, which are also fitted in the grain wheel.

Main frame of high carbon angle steel. Bridge construction, giving enormous strength. Drop forgings and malleable castings used for the housings and brackets. First motion spindle on roller bearings.



The Sunshine 8-ft. Reaper and Binder at Work

Platform frame of angle steel, with sheet steel bottom, reinforced with five angle steel trusses. Finger bar of special T-section steel of great rigidity. Diagonal braces resist torsion of platform. A groove along the middle of the steel platform adds strength and stiffness.

A lever and cam device tightens and slackens the platform canvas.

Elevators are also mounted in an angle steel frame, well braced and tensioned. Roller bearings are provided at the principal journals for the elevator rollers. Top elevator has floating mountings; it will rise to the extent necessary to take up the heaviest crop. A simple lever device tightens or slackens the upper and lower elevator canvases.

Binder table has ample adjustment back and forth for long or short straw. Header board provided for use in short growths. Hand lever control for adjusting buttor; also hand-trip attachment. Spring hinges on drop leaves.

Buttor of the vibrating type, crank driven, adjustable for long or short grain. Makes square butted sheaves both in light and heavy crops.

Binding and tying devices of most modern design. Compressor finger, against which grain is packed, has simple adjustments to give large or small sheaves. Spring adjustment at trip lever to give tightly-bound sheaves.

Knotter of exceedingly simple construction, and comparatively few parts. Has simple adjustments and provision for easy replacement of parts.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The sheaf-carrier is operated by foot lever. Adjustable to carry three to six sheaves.

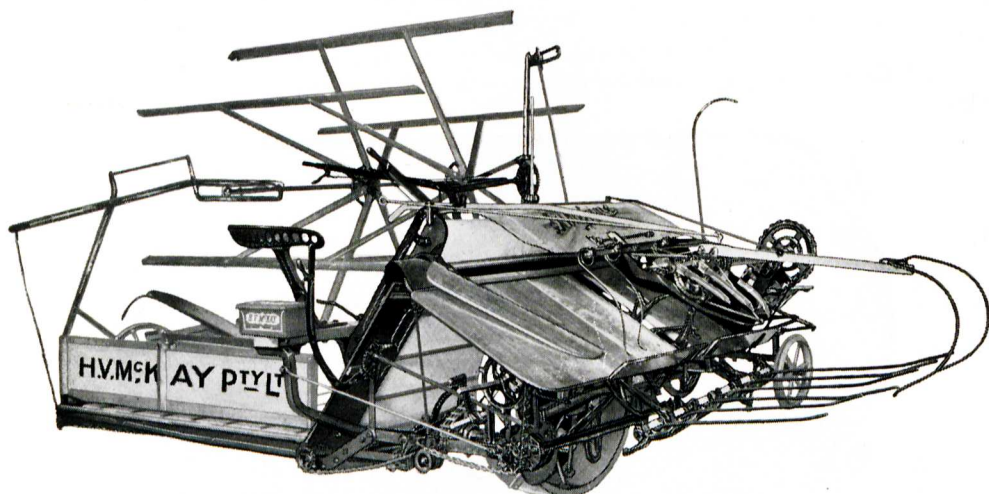
The knife sections are either serrated or plain. One knife of each sort is sent with the machine.

The fingers are of best malleable iron, with steel ledger plates.

Twine guides and tensions are provided, and are very simple in their operation.

The wood pitman is driven direct from the end of the crankshaft. The knife head is of best malleable iron, and its bearing is reinforced with a heavy wrought-steel guide.

The reel drive is direct from the front intermediate gear through two square shafts of spring steel. The lever for the reel adjustment is placed handy for the driver, and most ample provision is made for adjustments both back and forth; also up and down. The reel is spring balanced, so that its adjustment is made without any effort.



The Sunshine Reaper and Binder. 8-ft. Cut

The platform tilting device is operated by a foot lever, and a large range of tilt is provided. The height of the platform itself is regulated by worm and tooth rack, both on the main wheel and the grain wheel. It can be set running close to the ground, or as high up as needed.

The Sunshine machines are equipped with canvases of special quality, with ends hemstitched to prevent fraying. Straps are of best selected leather, and the slats of guaranteed well-seasoned timber.

All of the timber used in these machines is seasoned in our own yards for a very lengthy period, and we take pride in using nothing but the most suitable timber.

Wrought steel driving chains are used throughout.

Lubricating holes are provided at every bearing, all readily accessible.

An extra outside divider is supplied for use in very tangled crops. The divider hinges and folds for transport.

Special attention is drawn to the fact that the Sunshine Reaper and Binder is tested throughout before despatch. Many manufacturers test the binding attachment only, but with the Sunshine machine the whole of the mechanism is run for a considerable period before the machine is sent away from the factory, and this is the best assurance the farmer can have of receiving a perfectly-assembled and sweet-running machine.

A Catalogue of the Sunshine Reaper and Binder, with illustrations of its various parts, will be posted to any address on receipt of request.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Suntyne Drill

A Combination of the Grain and Fertilizer Drill
and the Spring Tyne Cultivator



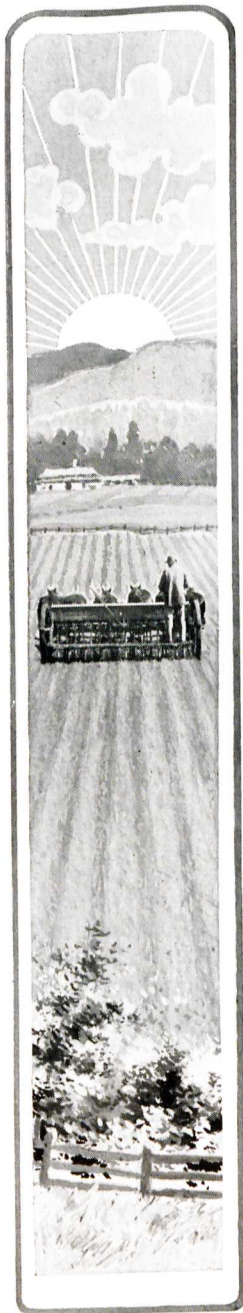
The Suntyne, 33 Tyne 16 Row Size

The Tyne Drills were invented and first produced at the Sunshine Harvester Works in 1916, and since that time their vogue has increased year by year to such an extent that they have quite usurped the place formerly held by the Hoe Drills in the farmers' esteem. In the first place, they combine **two implements in one**, as they may be used for cultivation only throughout the year, while at seeding time they are used as Grain and Fertilizer Drills. In this way they reduce the amount of **capital** to be invested in farm plant, as the cost of the one combined tool is much less than the cost of a Drill and a Cultivator supplied as separate units.

Further, they save **labour**, as they give a stroke of cultivation at the same time as they sow, thus cutting out the necessity for a stroke with the Spring Tyne just in advance of the Drill, as per former practice. Again, they cultivate much more thoroughly and effectively than did the old-time Spring Tyne implements, because the Tynes are spaced closer together. They are only $3\frac{1}{2}$ inches apart (centre to centre), and as they are fitted with 4-inch or wider points, it follows that the lines of cultivation actually overlap—no soil is untilled, and no weeds are missed.

But the chief reason for the great success of the Suntyne Drill is that by more scientific sowing it actually increases the yield. The best agricultural experts maintain that wheat (together with the fertilizer) should be sown on a level, compacted sub-surface, and covered with a mulch of finely-pulverized soil. Their theory is that the moisture stored in the sub-soil rises by capillary attraction or surface tension to the surface of compaction, but that the dust mulch stops it from rising further, and so prevents loss of moisture by evaporation. The Suntyne Drill operates exactly on these principles, places the seed with the superphosphate exactly where it gets most benefit from the available moisture, hastens germination, ensures vigorous early growth, and gives the crop every opportunity for healthy development in its early stages.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



The appended illustration shows the sown grain dropped 7 in. apart on the levelled, compacted sub-surface, and covered to a **uniform depth** by the top mulch of well-pulverized soil; and the sowing may be as shallow as the farmer desires with perfect covering still ensured.

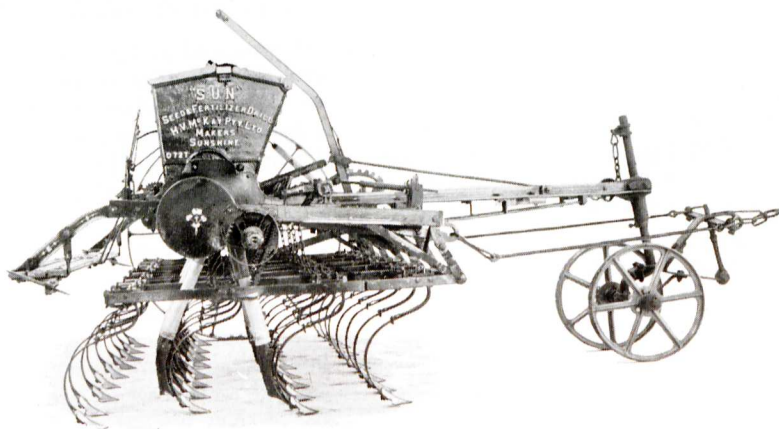


Sown with Suntyne Drill

The Suntyne is equipped with the Sunflex Jointed Float, making it Stump-Jump, reducing strain on tynes, and breakages; reducing draught and ensuring uniform cultivation of the soil. Moreover, the soil is cultivated right up to the stump, both in front and behind it. A special illustrated leaflet is available, descriptive of this feature.

The latest improvement on Suntyne Cultivator-Drills is the adoption of the All-Steel Lid, water-proof and warp-proof.

The side-on view of the Suntyne Drill shows the sowing "boots" attached to the two middle ranks of tynes, while the front rank cultivates only, and the rear rank cultivates and also covers any seed which may have failed to fall to the bottom. This picture also shows the fine amount of clearance from rank to rank to permit of satisfactory working in cloddy or sticky soil, or where surface trash abounds.



View with offside wheel removed to show the great clearance between the ranks of tynes

The principal lifting lever is at the rear, but a lever is also provided in front, which enables the four ranks of tynes to be set to work exactly level, and so produce the ideal sub-surface on which the grain is dropped.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sundelve Combined Drill



The Suntyne is equipped with Spring Tynes, and these are essential wherever the country is imperfectly cleared. If, however, the machine is to work in perfectly cleared paddocks, wherein there are no stumps or stones, it may be fitted with Rigid Tynes and is then known as the Sundelve.

The Sundelve Combined Drill, with Rigid Tynes

The Suntyne and also the Sundelve Drills are supplied in the following sizes:—

17-tyne, sowing 8 rows, covering 5 ft.	33-tyne, sowing 16 rows, covering 9½ ft.
25-tyne, sowing 12 rows, covering 7¼ ft.	41-tyne, sowing, 20 rows, covering 12 ft.
29-tyne, sowing 14 rows, covering 8½ ft.	49-tyne, sowing 24 rows, covering 14 ft.

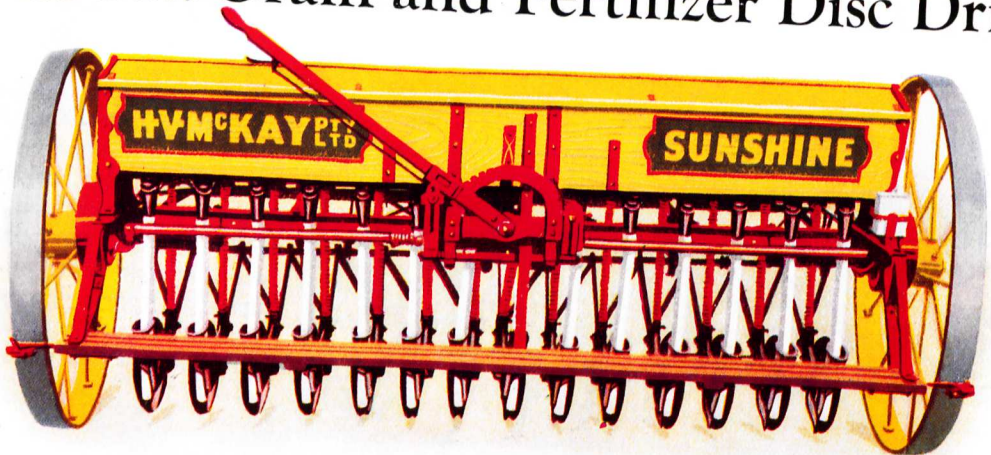
For sandy country the wheels may be equipped with wood rims. These prevent the lifting of sand to the bearings, and also add much strength to the wheels. Rotary Scrapers for use when working in sticky soils are available at small cost.

There is thus a range for the smallest and the largest areas. Many farmers credit these combined Drills with an increase of 5 to 10% in the yield of grain. The manufacturers issue a separate folder in which the mechanism of the grain and fertilizer distributing devices is illustrated and described in detail. A copy of this is sent to any farmer on request.



H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sun Grain and Fertilizer Disc Drills



Soil conditions in many parts of Australia demand the use of the Disc Drill. It is the lightest draught of any grain and fertilizer Drill, and is the best adapted for sowing the seed in ground which is covered with surface rubbish of any description, as the discs ride over the obstructions, and do not push the trash in front of them. The Sun Drills are equipped with poles and swingtrees to suit the number of horses usually employed to pull them, as per table subjoined. Stout steel wheels are provided, but for sandy localities wood rims are inserted, and these strengthen the wheels for rough work, and also prevent the lifting of sand to the gearing.

The Grain Distributors are of the vertical saucer type, double-sided, giving a fine and a coarse run, providing for sowing wheat from 18 lbs. to 270 lbs. per acre, and other grains in proportion. The Fertilizer Distributors are of the famous Star pattern, with three sizes of stars to choose from, giving a range for sowing dry superphosphate from 26 lbs. to 290 lbs. per acre. The change of quantities sown is by altering the driven speed of the grain and the fertilizer spindles, and this is effected by changing cogs in the gearing—a simple, effective and reliable method, involving very little loss of time.

The Sun Drills were the first Australian Drills to be constructed without a through revolving axle. Instead, a fixed stub axle is used, permitting the wheels to be hung with "pitch and gather," and the independent through spindle is driven by cogged gearing from **both** hubs. All the advantages of a revolving axle are thus gained, with none of its disadvantages—such as its tendency to sag and bind. A lateral acting lifting lever is provided to lift the discs clear of the ground, and to press the disc downwards to work at any desired depth. Pressure springs are fitted to each disc drawbar, and these provide a release to permit any disc to rise to clear a stump, stone, or other obstacle. The seed and manure feeds are automatically stopped when the discs are lifted. A footboard is supplied, forming a convenient stand for the driver to watch the working of the Drill while driving the horses. The lines of sowing are 7 inches apart.

For sandy country these Drills are supplied with wood rims in the wheels. These prevent the lifting of sand to the gearing, and also add much strength to the wheels.

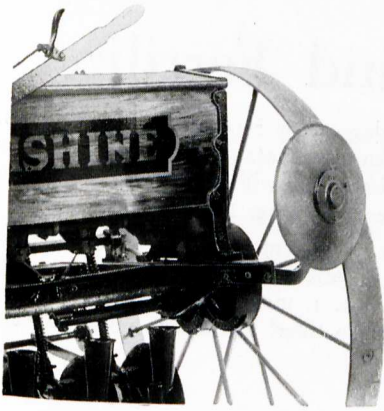
The Sun Disc Drills are supplied in the following sizes:—

Size	Width Sown	Poles	Swings for Horses	Size	Width Sown	Poles	Swings for Horses
8-disc ..	4 ft. 8 in. ..	1 ..	2	16-disc ..	9 ft. 4 in. ..	2 ..	4
12-disc ..	7 ft. ..	2 ..	3	20-disc ..	11 ft. 8 in. ..	2 ..	5
14-disc ..	8 ft. 2 in. ..	2 ..	3	24-disc ..	14 ft. (forecarriage)	(none)	(none)

These Drills may also be equipped with Hoes in lieu of Discs.

A special Catalogue is issued illustrating the sowing mechanism and other parts of these Drills. A copy of same will be posted to any address on request.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



Rotary Scrapers

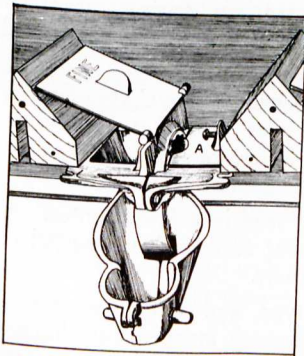
For Sunshine Drill Wheels

These well constructed scrapers rotate on chilled cast bearings, and are complete with force-feed grease cups and brackets for attachment to the main frame.

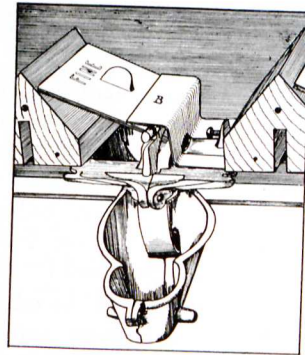
They are invaluable for keeping the tyres clean when working in sticky soils.

For Sowing Small Seeds

Small cast blocks, D886 and D880, also cover plates D1638 and D1674, can be supplied to enable small seeds to be sown through the fine grain runs of the Sun, Suntyne, and Sundelve Drills, without the aid of a special box. A large sowing range is obtained, as per table of quantities which will be posted to any interested person on request.



Sectional illustration showing interior of grain box, and the cast block D886 (marked "A") firmly fitted into the fine grain run. This arrangement sows Millet and Chicory. For Sudan Grass the arrangement is the same, but cast block (D880) is used instead of D886.



Showing interior of Grain Box with cover plate D1638 (marked "B") in position over casting D886, and covering the roller in grain run. This arrangement sows Rape, Chicory, and Subterranean Clover. For Lucerne, the arrangement is the same, but cover-plate D1674 is used instead of D1638.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunshoe Planter and Fertilizer

THE SUNSHOE is a one-horse single-row machine for planting cotton seed, peas, maize, beans, etc. It is a very compact machine, easily handled, and a striking advantage is that it will sow cotton seed as it comes from the gin without previous preparation. This will immediately appeal to growers who have had the troublesome experience of cleaning seed for other types of Planter.

The Sunshoe is provided both with a Seed and a Fertilizer Hopper mounted on a stout angle-iron frame with rigidly-braced steel handles. The Hoppers are of galvanized sheet steel, shaped to give them great stiffness. The Seed Hopper is extensible, and has a maximum capacity of two-fifths of a bushel. This Hopper is hinged to the frame, and may be tilted forward to obtain access



to the operating gears, while the Fertilizer Hopper in front is fitted with a cut-off slide that permits of the sowing of greater or smaller quantities as desired. The rear, or driving, wheel is of ample diameter, and has attached to it a clutch sprocket from which is connected a chain and sprocket drive to each Hopper.

A number of change sprockets is supplied for variation in speed. The Cotton Seeder Plate has a series of notches at its circumference which mesh with an "idler" sprocket and form a positive force feed for the seed. A small adjustable gate is provided, which can be regulated for light or heavy sowing.

The machine can be converted to sow a different class of seed in a few minutes. A few turns of a thumb-nut release the Seed Plate, and a Plate for different seed is then inserted in its place. A number of Plates is provided for sowing various distances apart.

The Maize Plates are of the edge drop and annular hole type, and do their work positively and accurately. From the Hoppers the seed and fertilizer pass through independent chutes to a metal boot which has a partition plate to isolate the seed from the fertilizer. This, however, can be readily removed if not required. The boot is also provided with an adjustable fertilizer spreader. From the boot the seed is deposited into a furrow which is opened up by a sickle-shaped coulter blade placed immediately in front of the boot. The covering is done by the rear or driving wheel, which is designed to act as a press wheel.

The seed can be planted as shallow as wished, and yet well covered with a mulch of pulverized soil, giving ideal conditions for quick germination and healthy growth. This implement is fitted with a strong adjustable draught bridle, and a small depth-regulating wheel in front of the coulter blade. It has also an in-and-out of gear lever, which is conveniently positioned near the operator.

A handy combination spanner forms part of the equipment.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sungem

A Three-Purpose Implement, embodying a
High-Wheel Spring-Tyne Cultivator, a Straddle Cultivator
and a Seed Planter and Fertilizer



An Efficient Implement for sowing Maize, Peas, French Beans, Cotton, Onions, Turnips, Mangels, Sacchaline, Subterranean Clover, Broom, Sudan Grass, etc.

As an 11-tyne, spring-tyne Cultivator it cuts 5 feet.

As an 8-tyne Straddle Cultivator it cuts up to 2 feet on each side of the row.

It may be fitted with seed planters only, or with both seed and fertilizer planters.

The frame is of stiff section angle steel, mounted on a heavy channel steel beam which forms the axle bed. Two reversible stub axles are securely clamped to the bed plate, and on these are mounted stagger spoked steel rimmed wheels, 4 ft. in diameter, with heavy cast bearing hubs, and dust proof oil caps.

The three tyne bearing floats, which are of spring steel, are rigidly braced at their forward terminals to the frame and bed plate. By removing the centre float which carries three tynes the implement may be used as a straddle cultivator, cutting up to 2 ft. each side, with a vertical clearance over the row of 27 inches. The gap may be varied, and shields are provided for protection of plants when straddling.

A single lever operating on a rack and bar, to which are hinged rods and compression springs clamped to the rear cross bar of each float, permits of the tynes being raised and lowered. The springs may be compressed and pinned at varying points along the rods to put greater pressure on the tynes if desired. The spring release enables the tynes to rise over stumps and stones.

The well known Sunshine non-slipping Tynes are used, their serrated tops preventing any slipping and each tyne is reinforced with a helper spring, giving added strength at point of greatest strain.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Points can be supplied 1½, 2½, 4, 5, or 6 inches wide, the 2½ inch being reversible. See page 44 for particulars.

The seed planters, holding about half a bushel each, are mounted on a cross frame and are driven from bevel pinions on a cross shaft, to which motion is imparted by chain and sprocket drive from the main sprocket mounted on the septagonal hub of near side main wheel centre. The planters may be placed nearer together or further apart according to the spacing of the rows for sowing. The seeding plates are rotated by a cupped pinion meshing with a bevel pinion. The cotton seeder plate is notched at its circumference to mesh with an idler sprocket or picker wheel, forming a positive force feed for the seed.

The plates may be varied to suit other kinds of seed, in a few minutes. Three maize plates can be provided, which will sow the grain respectively at 15, 20 or 30 inches apart. They are of the edge drop type, working positively and accurately. Standard equipment covers four sets of plates, but plates can be supplied to suit any seed. A feature that will appeal to cotton growers, is that the seed may be sown as it comes from the gin, without previous preparation.

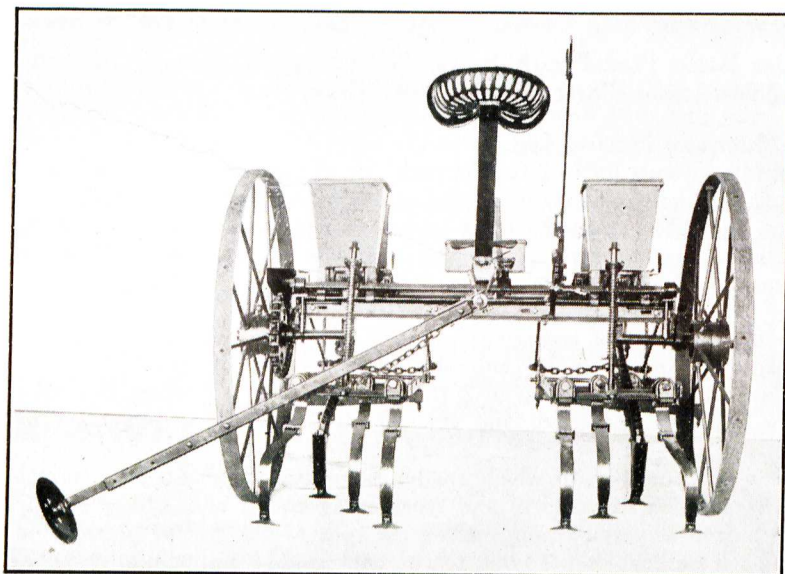
From the hoppers the seeds pass through spiral steel conveyor tubes to steel boots mounted on two of the tynes, and thence drop to the bottom of the furrow. The depth of sowing may be regulated deep or shallow as desired. As a planter it is adjustable to use with the sowing tynes only, or with the other tynes left on for cultivation and covering. The sowing tynes may be spaced to any width up to 4½ feet apart. A disc marker is supplied for convenience in planting.

When desired, the Sungem is equipped to sow fertilizer along with the seed. The fertilizer boxes are placed behind the seed hoppers and hold approximately 26 lbs. each. The fertilizer is distributed by means of a revolving star, an adjustable gate enabling the quantity sown to be regulated at will.

By throwing the clutch out of gear, the implement can be instantly converted into a cultivator only.

The pole is provided with a device for adjusting up or down, so that the three ranks of tynes may be set to work at an even depth.

Pole and two horse equalising swings are provided as standard equipment, but swings for 4 horses can be supplied extra if desired.



✠

The SUNGEM
as a Straddle
Cultivator and Planter
with fertilizer equipment

✠

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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The Sunshine Cane Fertilizer Drill

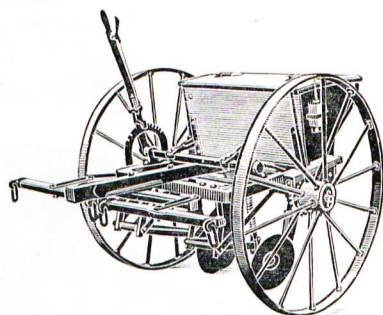
The Most Effective and Most Reliable Machine
for Manuring Cane

It is the outcome of years of practical experience. It is simple in construction; built on a very strong angle steel frame, with strong stagger spoke wheels, with reversible stub axles, which means long life and a small repair bill, as it is capable of withstanding the roughest of work that this class of machine is required to do.

The fertilizer box is made to hold 2 cwt., and is so arranged as to be easily filled without having to lift the manure unnecessarily high.

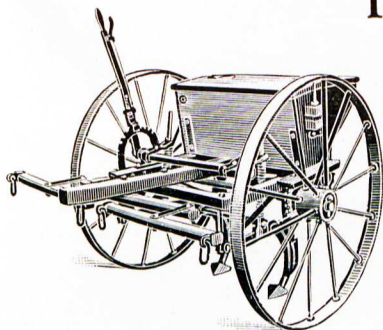
The shape of the box is such that there will be little or no sticking to the sides, and a powerful agitator keeps the fertilizer moving down to the stars. This is absolutely necessary in the hot, humid climate in sugar districts. The stars are of improved pattern, and the rubber conveyor tubes are of ample size to prevent choking, and they run in a straight line into the disc openers, which are adjustable from 18 in. to 28 in. wide, and can be used for either in-throw or out-throw.

The quantity per acre can be varied from nil to 15 cwt. by simply sliding the gate opening one way or the other with a lever provided for this purpose. This does away with extra stars and sprockets. One lever raises and lowers the disc, and also automatically throws the machine in and out of gear. No detail has been omitted in bringing this machine to a standard of perfection. It is equipped with Pole and Swings for two horses.



Plantation Drill

The Two-Row Fertilizer Drill for Vineyards

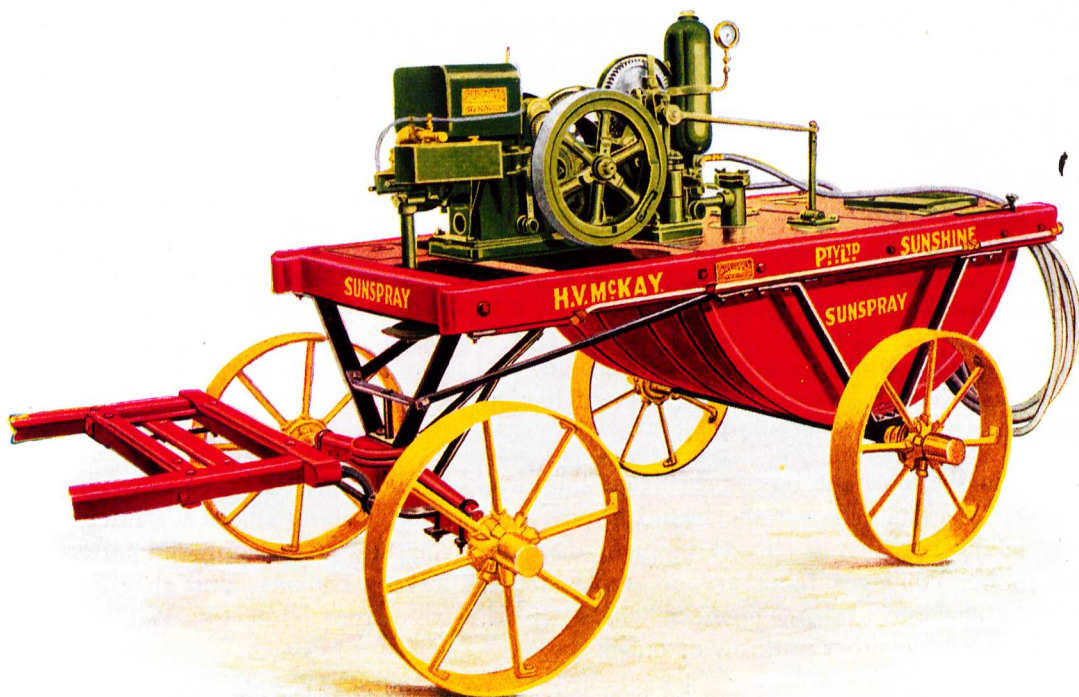


Vineyard Drill

This Drill is also popular for manuring vineyards, and for this purpose it is equipped with tynes in lieu of discs. The tynes are of hard steel, forged to V shape, and to these the sowing boots are attached. The tynes are shod with steel points, which open a furrow into which the fertilizer is dropped. The width between rows sown may be adjusted up to 25 inches.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunshine Power Spraying Plant



The Sunshine Spraying Plant, known as the **SUNSPRAY**, has been carefully and thoroughly designed in the light of scientific spraying requirements, and is undoubtedly the most efficient and economical outfit of its kind. There are still some growers who are deterred from introducing a power plant by fear of complicated mechanism, unreliability, and consequent trouble, but the **SUNSPRAY** Engine and Pump are designed on such simple lines, with working parts so accessible, that a novice could quickly become conversant with their actions and the little attention that is required to ensure sweet running.

The power plant consists of a Sundex 2 H.P. Petrol Engine and Sunshine Power Pump, mounted together on a sturdy, seasoned hardwood transport, which carries a vat of 100 gallons capacity.

The Engine is of the single cylinder, horizontal, hopper cooled, 4-cycle type, with high tension magneto, simple to understand, yet with superior workmanship apparent in every detail. Grease cups and sight feed lubricator make greasing and oiling a simple matter. It is well balanced and runs with a minimum of vibration at all speeds. It is guaranteed to develop well over its rated horse power. The engine drives the pump direct through high quality machine cut gears. A detailed description of the engine appears further over.

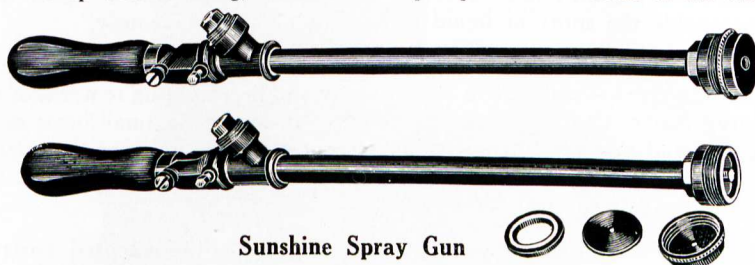
The Pump is of the vertical, twin cylinder type, and the cylinders are lined with special acid-resisting gun-metal as also are the plungers and valves. Its gears are of high quality cast steel with machine-cut teeth. Grease cups are provided. Of special note is the air chamber, which has a large capacity ensuring a steady flow. The pressure gauge will register up to 300 lbs. pressure to the square inch, and the release valve of acid resisting alloy is easily adjustable to regulate the pressure at will. The pump crankshaft runs in renewable phosphor-bronze bearings.

The well seasoned kauri vat, with a capacity of 100 gallons, is strongly braced, the steel straps being equipped with eight compensating bolts to take up the swelling of the timbers. The top is

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

lined with rubber packing which effectively prevents spillage. A filling strainer is fitted beneath the lid of the vat, and a second strainer is fitted on the suction pipe. This is above the deck of the vat and set in a horizontal position, so that by merely releasing two wing nuts and removing the lid of the housing the strainer may be quickly cleaned without spilling liquid.

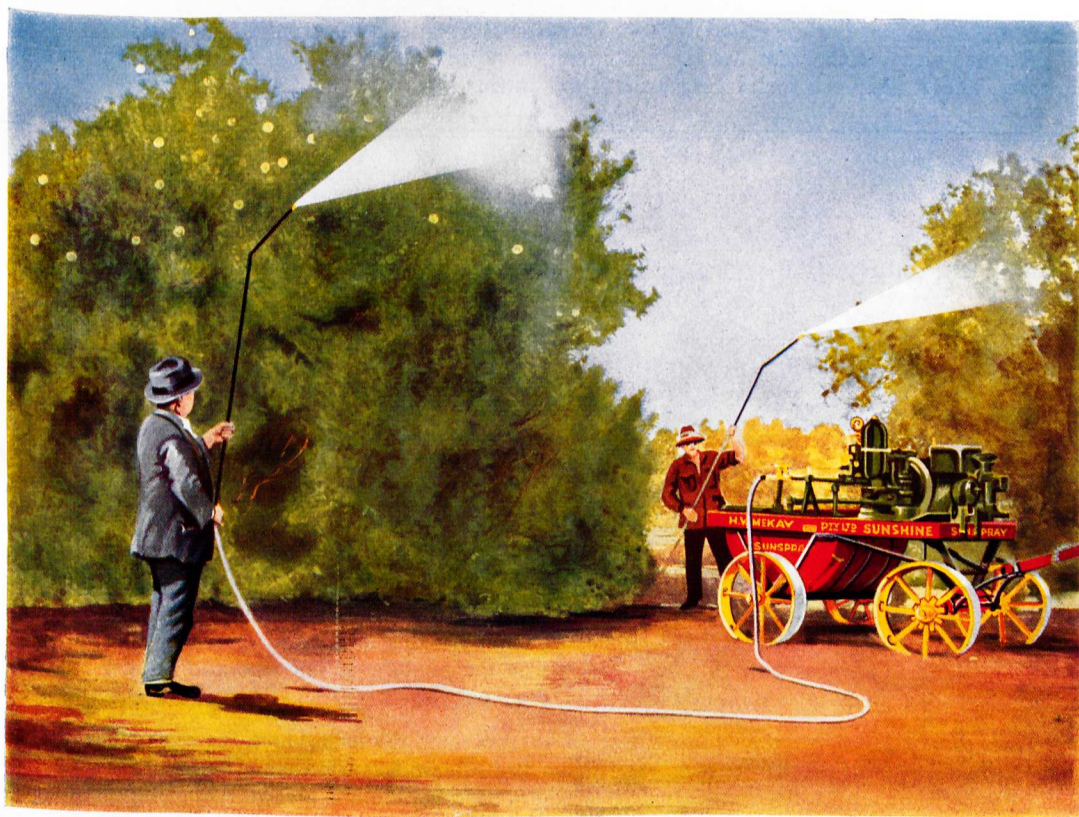
An efficient agitator is mechanically operated, and provided with an adjustment for varying the speed. Perfect agitation of spray mixture is most important, and it is necessary that the mixture be well stirred up before using, otherwise the pump will draw some of the thick mixture from



Sunshine Spray Gun

the bottom with the first few strokes. The **SUNSPRAY** can be run for a while with the hose taps cut off, the mixture being effectively agitated, drawn through the pump, and returned to the vat by the overflow pipe.

The transport of seasoned hardwood has low draught, and is practically impossible to upset. A full open wheel lock allows it to be turned in its own length. The four strong iron wheels, with



A Sunspray Outfit at Work in the Mildura District

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

wrought iron rims of wide face, are carried on steel axles with patent dust-proof oil retaining hubs. Shafts of seasoned hardwood are provided, or at buyer's option, pole and swings for two horses. Shafts can be supplied with fittings to suit either dray or spring cart harness.

Two 6ft. spray rods with taps and spray nozzles, and two 30ft. lengths of stout 6-ply hose are supplied as standard equipment, or alternatively, one Sunshine Spray Gun, and one 40ft. length of hose. The plant has ample power to supply two spray rods at high pressure. It is very necessary to cut off the spray when passing from tree to tree, in order that waste may be avoided. The **SUNSPRAY** rapid cut-off taps enable the spray of liquid to be shut off instantaneously.

A trouble experienced with most spray nozzles is that the force of spray ultimately enlarges the aperture, upsetting the correct density of the spray and necessitating removal of the nozzle head. The **Sunshine Spray Nozzle** does not give this trouble. It contains a small brass disc with aperture bored to correct size, and thus the force of spray in course of time enlarges the aperture of the disc only, a part that can be replaced by the expenditure of a few pence. The nozzle itself is not subject to wear, and will practically last for all time.

A thick coating of heavy durable paint effectively protects the exposed parts of the engine from acid-laden drifting spray, and a tarpaulin cover is included in the standard equipment, which also comprises a full assortment of tools.

An important feature of the **SUNSPRAY** is that the Engine Gear Wheel is movable on the shaft, and by merely removing a small pin and shifting the Gear Wheel along, the engine is disconnected from the pump. An 8in. x 4in. pulley is fitted to the fly wheel of the engine so that it may be used as it stands on the transport for driving a Chaffcutter, or for any other use within its power.

A great many Orchardists use the plant for general pumping when it is not required for spraying purposes, and it has been found very satisfactory in this regard.

Sheep Jetting

With the Sunshine Spraying Outfit



Sunshine Quick-Release Jetter

The decreasing bird life in Australia has resulted in the increase of another pest, the blowfly, and those sheep growers who have experienced losses from this cause can appreciate the enormous value of a machine which quickly and effectively combats this evil, and prevents a recurrence. Crutching is slow and laborious, but the jetter applies the mixture in one operation **under whatever pressure is necessary according to the length of the wool.**

THE JETTER consists of a handy brass pistol operated by one hand, with a quick release trigger, which instantly shuts off the jet when the pressure on it is released. The jettors are attached to the flexible hoses, and the sheep are jetted, whilst passing through a race, with mixtures of soda ash and white arsenic, or fish oil and tar. With the Sunshine jetter over 2000 sheep can be thoroughly treated in one day.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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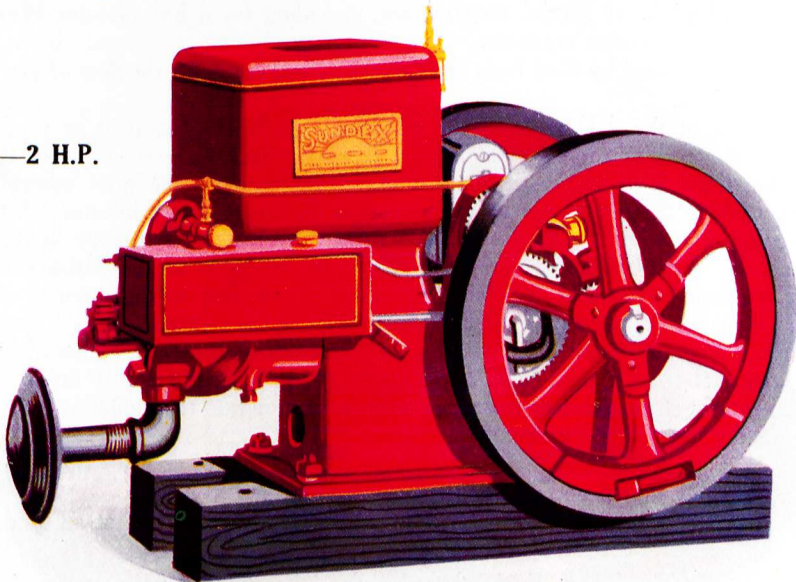
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The Sundex Farm Engine

Horizontal, Open Crankcase Type. Volume Governed. 4-Cycle. Ignition by High Tension Magneto. Hopper Cooled. Renewable Sleeve Cylinder. Sizes—2 H.P. and 4 H.P.

The Sundex—2 H.P.



This is a high-grade, 4-cycle working engine of superior finish. The solidity of its construction and the fine workmanship of its parts distinguish it as a motive-power machine that will give life-long service and satisfaction.

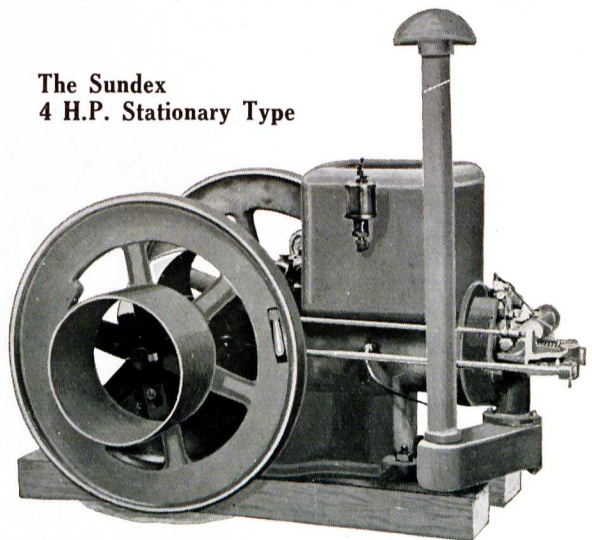
It is of the horizontal, open crankcase type. The crankcase is of heavy design, forming a solid foundation for the engine. The crankshaft bearings are always immediately accessible. Stout white metal bearings are provided for these journals, which can be replaced, when worn, at a minimum of work and cost. They are each lubricated by pressure grease cups of durable character. The Crankshaft is a one-piece drop forging of steel of vast strength at the throw and at the bearings. The connecting rod is also of steel, carefully and accurately machined.

The Cylinder is an independent sleeve, driven into position in the main casting, and it also may be replaced by a new one after years of wear. The Cylinder walls are ground to a fine degree of accuracy, and to a glassy smoothness by special machinery.

The Piston is machined and fitted with great exactitude, and its three rings retain the compression indefinitely. The oiling of the Cylinder and Piston is by sight feed lubricator of substantial pattern and ample size.

The Governor is of the centrifugal type, of strong design, and with few wearing parts. In the 4 H.P. size it is spring loaded to ensure equilibrium while running, and to give steady control of the throttle.

The Sundex
4 H.P. Stationary Type



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The Valves, of high-class quality steel, are accurately machined and ground to a perfect fit. The Exhaust Valve is mechanically operated by Push Rod. The Push Rod, which is easily removable, has no centre bearing, and works without friction. The Inlet Valve is automatically controlled.

The Timing Wheels are carefully machined and fitted, and the Cam presents a hard chilled surface to the Roller, working against it, which actuates the Push Rod.

The Cylinder Head is of special construction, providing for a hot spot for effective vaporisation. Ignition is by high-tension magneto.

The Throttle is operated by Rod from the Governor, and regulates the flow of gas in accordance with the power required.

The Carburettor of the 4 H.P. size is of special design, having no float or needles. The fuel is pumped up to the carburettor by a diaphragm pump worked by pressure from the side of the cylinder, and thus there is no trouble from flooding, as occurs with the float control type of carburettor. The carburettor has a special compartment for starting with benzine. A tumbler needle admits the benzine, and after the engine is started this can be shut off and the needle for admitting kerosene turned on. A special automatic air regulating valve fitted to the carburettor controls the amount of air required to mix with the fuel to form gas according to the amount of horse power being utilised. A screw adjustment is provided for regulating this valve.

The 2 H.P. is operated on a different, but equally efficient principle. Instead of a diaphragm pump forcing the fuel from a tank to the carburettor, a small fuel tank is fitted underneath the suction tube, and the petrol is drawn from this tank by suction into the induction tube, there forming gas for entry to the explosion chamber.

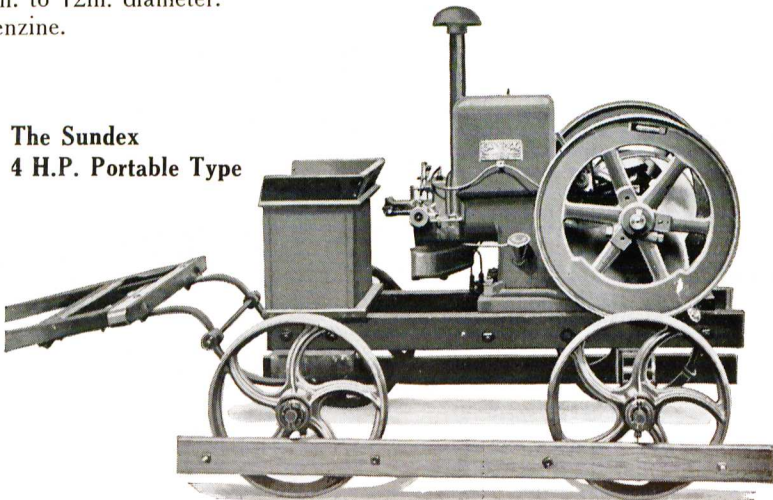
An ample sized hopper is provided for the cooling water, which also fills the water jacket, completely surrounding the Cylinder and part of the Cylinder Head.

The Engine is well balanced, and runs with a minimum of vibration at all speeds. It is guaranteed to develop well over its rated horse power.

SPECIFICATION: The 2 H.P. Engine has cylinder $3\frac{3}{4}$ in. bore x $5\frac{1}{4}$ in. stroke (with renewable sleeve cylinder). Speed, 450 to 550 R.P.M. Ignition by high tension magneto. Two fly wheels, 16in. diameter x $2\frac{1}{2}$ in. face. Normal sized pulley, 8in. diameter x 4in. face, but special pulleys can be supplied ranging from 4in. to 12in. diameter. Weight, 3 cwt. Runs on benzine.

The 4 H.P. Engine has cylinder 5in. bore x 7in. stroke (with renewable sleeve cylinder). Speed, 350 to 450 R.P.M.. Normal sized pulley, 12in. diameter x $6\frac{1}{2}$ in. face, but special pulleys can be supplied ranging from 8in. to 16in. diameter. Two fly wheels, 26in. diameter x $2\frac{1}{4}$ in. face. Ignition by high - tension magneto. Starts on benzine; runs on benzine or kerosene.

**The Sundex
4 H.P. Portable Type**



LUBRICATION: The cylinder is lubricated by sight feed lubricator feeding three to six drops per minute, using Sunshine Cylinder Oil. The Big End Bearing is lubricated by pressure grease cup, as also are the main bearings and governor shaft. If these cups are filled with grease and screwed down a couple of turns, the engine will run up to four hours without attention.

The 4 H.P. size is supplied either as a Stationary Engine, or as a Portable Engine with stout four-wheel undercarriage, equipped with shafts or with short pole for transport.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunduo 7-h.p. Petrol Engine

Two Cylinder, Four Cycle

An Engine of superior workmanship and finish, designed for even vibrationless running.

Unexcelled for driving electric motors, sheep shearing machinery, etc., or for chaff-cutting, pumping, wood-sawing, and general work.

The SUNDUO is the Engine that drives the mechanism of the Sunshine Rice Header Harvester.

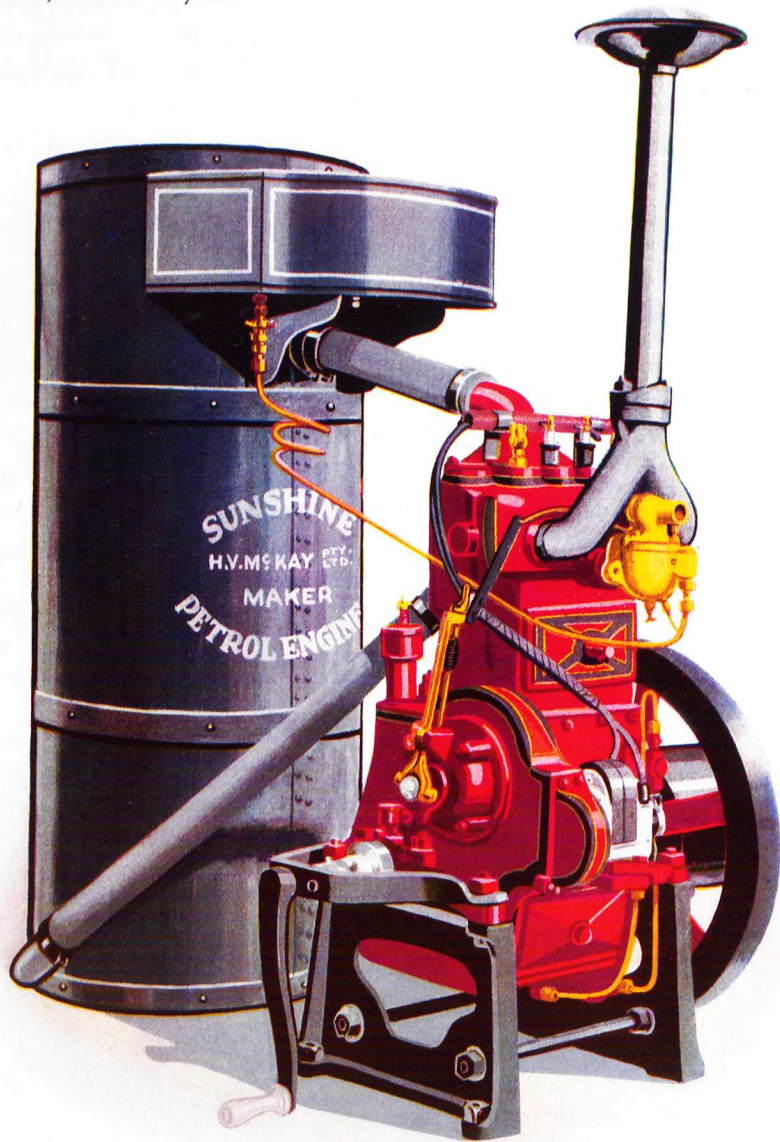
The Crankcase, which also forms the base, is made of close-grained cast iron, and has a flanged top, which is accurately machined to make a perfect joint with the cylinders. The main bearings or journals, of ample bearing surface, are lined with a special anti-friction white metal, and are carefully fitted to the crankshaft.

The Cylinders. — These are made of hard close-grained cast iron, and have the water-jacket cast with them. The bore is $4\frac{1}{2}$ in. x 6 in. stroke. They are accurately bored and finished with an extremely smooth surface to minimise friction and wear. The inlet and exhaust valve seatings and guides, which are on the side of the cylinder, are also accurately machined and bored.

The Pistons, of hard close-grained cast iron, have large bearing surfaces, and are carefully turned and ground. They have four grooves with split rings, which prevent compression leakage.

The Gudgeon Pins are made of steel turned and ground to exact size, and are accurately fitted into the piston.

Inlet and Exhaust Valves.—These are of ample area, so that no resistance is offered to the flow of the gases, and are made with cast iron heads and seatings, accurately machined and ground,



H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

and fixed on a mild steel spindle. Provision is made for taking up wear on the ends of the valve stems by means of an adjusting screw and lock nut on each tappet.

Connecting Rods.—These are of cast steel and of H. section to give the maximum of strength combined with lightness. The gudgeon pin is held by a set screw in the small end of the connecting rod, and is free to move in the piston, forming a maximum bearing surface.

Crank Shaft.—This is drop forged from solid steel, and then turned and ground to exact size; all the journals have ample bearing surfaces.

Cam Shaft.—All cams are shaped from the solid forging, and bearings are accurately machined, hardened and ground.

The Carburettor.—This is arranged for gravity feed, with float and needle valve. It has a wide range of adjustments.

The Governor is of the volume governing type, and operates by centrifugal force. It consists of a weight in the shape of a hollow oval, pivoted at the end of the cam shaft. In action, the weight tends to assume a vertical position, and in so doing, pushes against a pin which regulates the position of the lever connected to the throttle on the carburettor. It may be adjusted to regulate the speed of the engine while running.

Fly Wheel and Pulley.—The fly wheel is of such diameter and weight as to give a great degree of regularity to the speed of the engine. It is of neat design, and is fitted with an 8½ in. driving pulley, the end of which is solid and is bolted to the spokes of the fly wheel. The normal speed is 700 revolutions per minute. A friction pulley can be supplied if desired, at small extra cost.

Magneto and Sparking Plug.—The magneto is of high tension type. It is driven from the cam shaft, and is accurately timed. It is fitted with a lever for retarding the spark when starting the engine. Rubber insulated wires connect with the best quality sparking plugs obtainable.

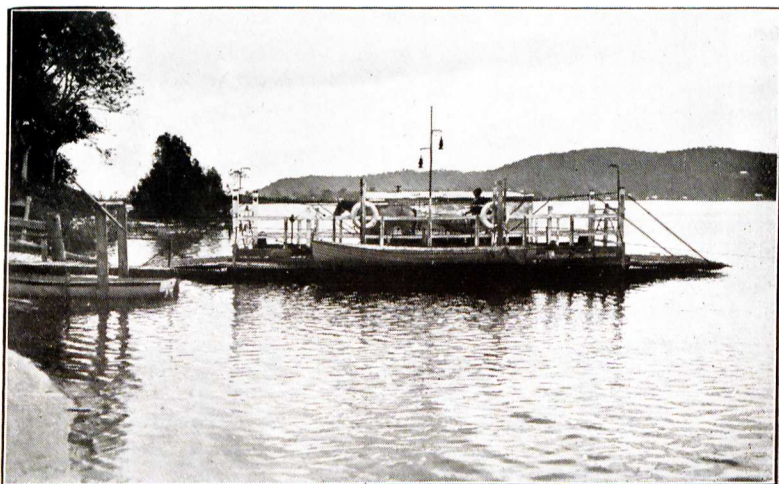
Gear Wheels.—The gear wheels for driving the cam shaft and the magneto have machine-cut teeth, and work with a minimum resistance, and the gears are totally enclosed.

Lubrication.—This has received every consideration in design, and all the internal working parts are automatically lubricated by means of an oil pump, operated from the cam shaft, the oil being constantly circulated. A test tap enables the oil level in the crankcase to be easily checked.

Tools.—These include a complete set of spanners to fit all nuts on the engine, and a special spanner for loosening valve overhead caps.

The **SUNDUO** is supplied in both stationary and portable types, the portable engine being mounted on a stout four-wheeled under-carriage equipped with shafts.

The **Clarence River (N.S.W.) Vehicular Ferry**, depicted in this illustration, has been driven constantly by a Sunduo 7 H.P. Standard Type Petrol Engine since 1919. What greater testimony could be given to the efficiency and reliability of the Sunduo?



H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunwell Pump Jack

Belt Driven

For Wells and Bores

The SUNWELL PUMP JACK is designed to take the place of existing windmills in case of failure of wind or breakdown, and also for pumping direct from wells and bores without a windmill.

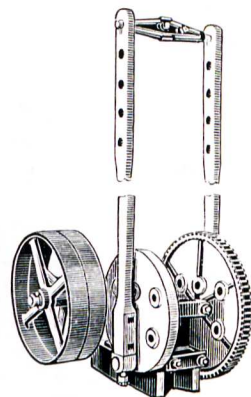
The capacity of the Sunwell Jack is only limited by the power available to drive it. The length of the stroke—5, 7½, 9, 10, 11, and 13 inches—is adaptable to all Standard Cylinder Pumps, and the Jack possesses the great advantage that the Pump is driven continuously to its full output.

THE PUMP JACK is fitted with fast and loose pulleys, 18-in. dia. x 2¼-in. face, geared down in the proportion of 6 to 1. By varying the speed of the pulley, the following speeds on the pump rod are obtained:—

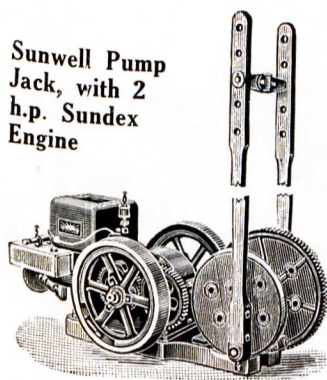
Pulley at 180 r.p.m. gives 30 strokes per minute.

"	"	210	"	"	35	"	"	"
"	"	240	"	"	40	"	"	"

And others in Proportion.



Sunwell Pump Jack, with 2 h.p. Sundex Engine



The Sundex Engine with The Sunwell Pump Jack Direct-Coupled

This compact set consists of the SUNWELL JACK direct coupled by machine-cut gearing to a SUNSHINE ENGINE, 3 h.p. or 2 h.p. The gearing allows a range of strokes on the Pump Jack arms from 30 to 40 strokes per minute, with length of stroke 5, 7½, 9, 10, 11, and 13 inches.

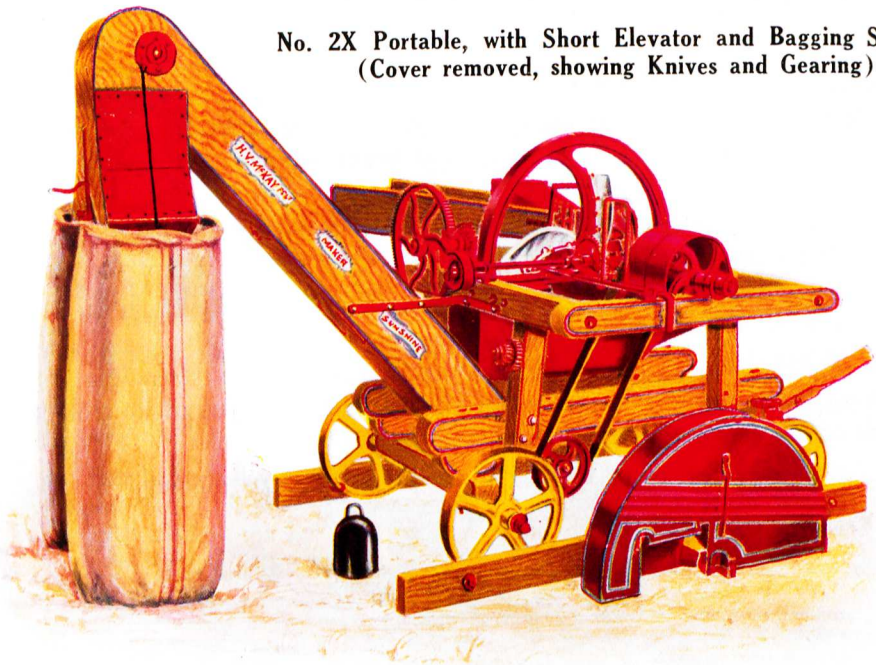
FOR USE ON WINDMILLS.—The method of attaching either a direct-coupled or belt-driven Jack is simple. The Jack body is secured to the suction pipe by the clamps supplied. The arms of the Jack are clamped to the Pump Rod, which is disconnected from the mill at any convenient socket. To use the mill again, simply disconnect the Pump Arms and re-connect the Pump Rod.

The SUNWELL JACK is suitable for both shallow and deep wells and bores, and will lift and deliver water up to a head of 1,500 feet.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunshine Chaffcutters

Sunshine Chaffcutters are at work on thousands of farms throughout Australia. Many of them have been in regular use for over twenty years, giving no trouble to their owners, except for sharpening knives, and costing nothing for repairs. The sample produced is clean-cut and marketable with-



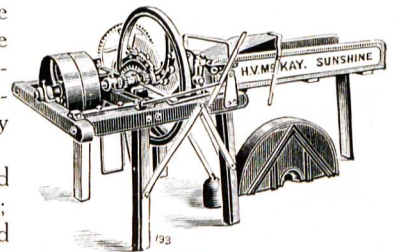
**No. 2X Portable, with Short Elevator and Bagging Spouts
(Cover removed, showing Knives and Gearing)**

out sieving. If the knives are kept sharp, the machine does the rest. The safety lever is located in such a position across the feed box that the feeder can work it under all conceivable circumstances. It also gives him a perfect insurance against the possibility of serious accident, as the feed rollers reverse immediately this lever is moved.

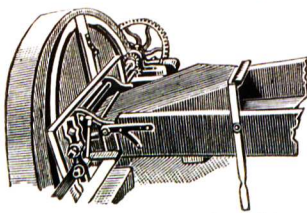
Nos. 4AX, 2X, and 2XP have extended rail, lengthened spindle, outside bearing, fast and loose pulleys, and belt shifter; also 'stop motion' and reversing gear, with safety lever extended across the feed-box. They are suitable for engine drive.

The illustrations of No. 2X serve also to illustrate No. 4AX, as the latter differs very little from the former, except in size.

No. 2X has 9½ in. mouth, while No. 4AX has 8½ in. mouth. (See table overleaf.)



**No. 2X Stationary
(Cover removed)**



**Safety Device on Sunshine
Chaffcutter**

PATENT SAFETY DEVICE

This is fitted to every Sunshine Chaffcutter. It is of sheet metal construction, and is connected with the feed-box in such a way that it does not obstruct the feeder, and at the same time makes it impossible for his hand to be caught by the rollers. No user of a Chaffcutter can afford to be without this splendid device for preventing accidents.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

DIMENSIONS, ETC., OF SUNSHINE CHAFFCUTTERS

	Type	Number of Knives	Width of Mouth	Length of Chaff Cut	Usual Size of Pulley	Power Needed	Approx. Capacity per hr.	Norm. Speed R.P.M.
No. 4AX	Stationary	3	8½ in.	3/8, 1/2, & 5/8 in.	16 in. x 4 in.	4 B.H.P. Engine	25 cwt.	350
No. 2X	Stationary	3	9½ in.	3/8, 1/2, & 5/8 in.	16 in. x 4 in.	4 or 5 B.H.P. Engine	35 cwt.	375
No. 2XP	Portable	3	9½ in.	3/8, 1/2, & 5/8 in.	16 in. x 4 in.	4 or 5 B.H.P. Engine	35 cwt.	375

Pulleys of other diameters can be supplied to special order. If customer already has an engine, the diameter and speed of the driving pulley on the engine should be stated, so that the proper size pulley may be fitted to the Chaffcutter. The average capacity per hour is as stated above, but this can be increased by heavy feeding. Best leather belting for driving Chaffcutters is supplied at reasonable prices; usually 40 feet of 3 in. belt is needed for these Cutters.

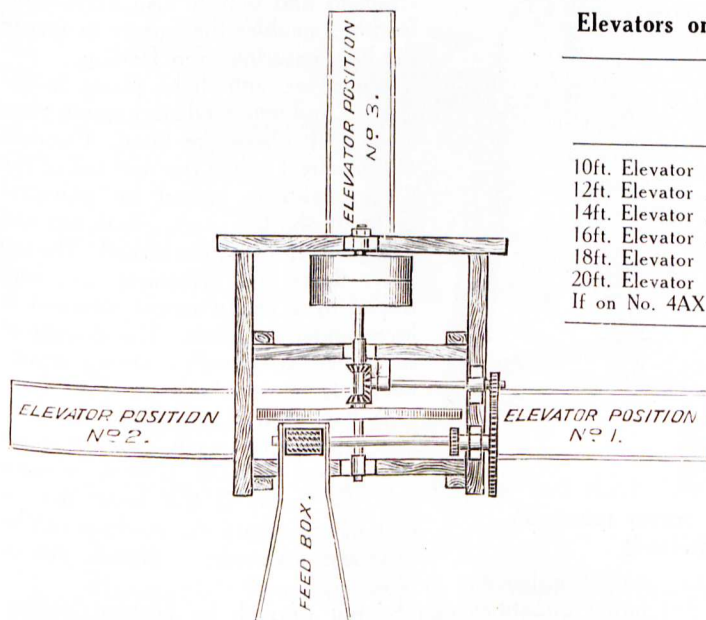
CONSTRUCTION.—No sacrifice to cheapness is allowed in the making of the above machines. The frame is of selected seasoned timber, mortised, bolted and stayed to a complete rigidity. The knife wheel is heavy, correctly balanced, and is securely keyed to the main spindle. The knives, of best tempered steel, are secured to the arms by three bolts, and in each arm four set-screws are provided so that each knife may be accurately set to the mouthpiece. The feed rollers are lathe turned and mesh exactly, so that even feeding is made certain, and winding and choking is prevented. The bevel pinions are of cast steel. The link joint of the top roller spindle ensures even driving as the roller rises or falls with the feed. A lever and weight are provided to adjust the rollers to the necessary grip.

SUNSHINE CHAFF ELEVATORS

Stationary Chaffcutters, No. 4AX and No. 2X, can be supplied with Elevators 7, 10, 12, 14, 16, 18, or 20 feet long, equipped with plain hopper spouts for delivery into a bin, or with double-delivery bagger spouts for bagging. (The small Cutter (No. 5) is not fitted with Elevator.)

Elevators on No. 2X Stationary Chaffcutters

	Highest Point above Ground Level	Horizontal Projection beyond Rail of C'utter
10ft. Elevator	6ft. 3in.	6ft. 0in.
12ft. Elevator	7ft. 6in.	7ft. 7in.
14ft. Elevator	8ft. 8in.	9ft. 2in.
16ft. Elevator	9ft. 11in.	10ft. 9in.
18ft. Elevator	11ft. 1in.	12ft. 4in.
20ft. Elevator	12ft. 4in.	13ft. 10 in.
If on No. 4AX Cutter add ..	6in.	3in.



Double Bagger Spouts can be fitted intermediate in Elevators of 12 feet in length and upwards.

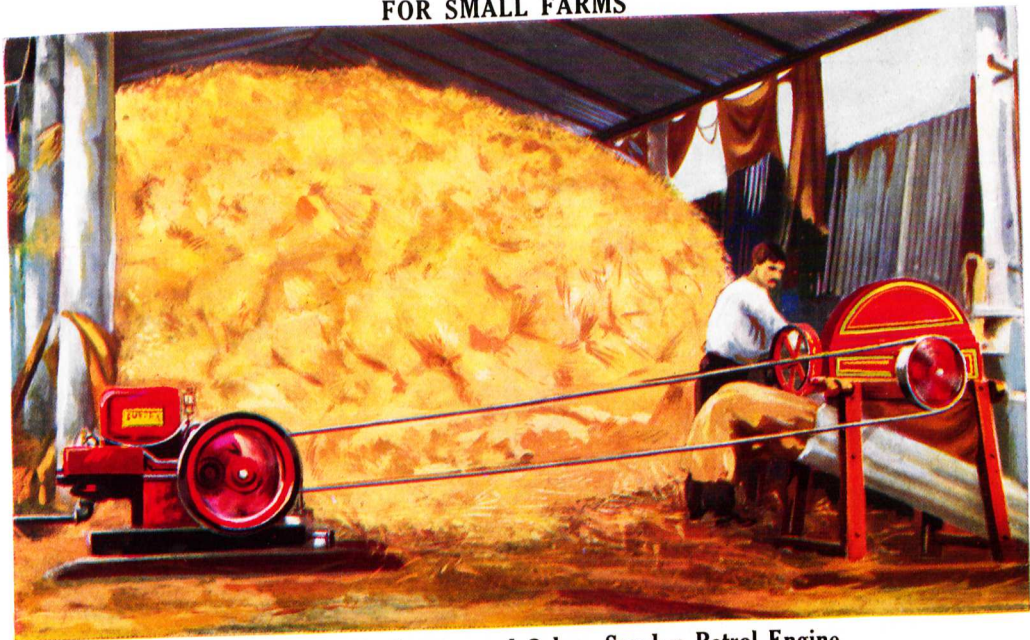
Unless otherwise instructed, Elevator will always be fitted in Position No. 1.

Elevators may be fitted in Position No. 2, if so ordered, without extra charge
If Elevator is required in Position No. 3, there is an extra charge

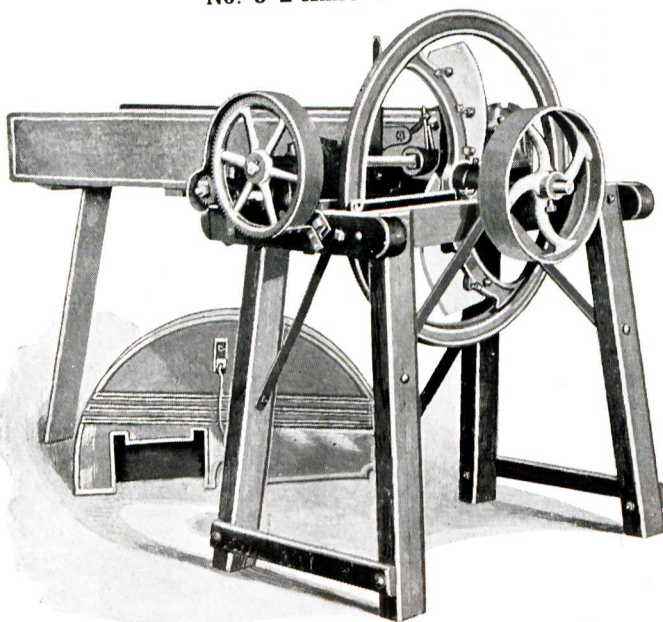
H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunshine Chaffcutters

FOR SMALL FARMS



No. 5 2-Knife Chaffcutter and 2 h.p. Sundex Petrol Engine



**No. 5 Chaffcutter, 2 knife (cover removed)
A 2 h.p. Engine drives it**

The No. 5 is a handy 2-knife Cutter, with 8½ in. mouth. The frame is of seasoned hardwood, heavily braced, strapped and bolted. An extra large feed-box enables the farmer to spread the hay, ensuring even feeding. There are anti-choke plates in the cheeks, and tempered steel mouth plate and cheek plates are fitted. Freedom of movement in the rise and fall of the roller plates is gained by universal joints on the top shaft. Both top and bottom feed rollers are turned. The top roller floats and movements are controlled by a heavy weight attached to lever under feed box. The driving of the rollers is through a strong universal joint. A hand lever, at right of the feed box, within easy reach, provides quick change into forward, reverse, or neutral. So handy is this lever, that in case of emergency the machine can be instantly reversed or thrown out of gear. Change speeds are provided to cut chaff either ¾ in. or ⅝ in. Capacity is 10 cwt. per hour, but larger quantities can be put through by heavier feeding. The normal speed at which it is driven is approximately 300 revolutions per minute. The pulley provided on knife spindle is 13 in. diameter by 3½ in. face. A strong cover to prevent flying chaff is supplied.

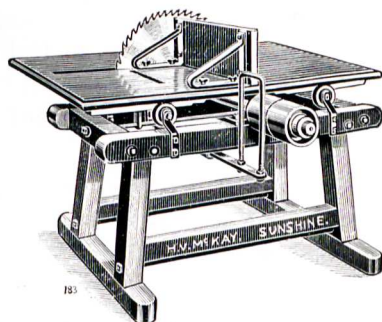
H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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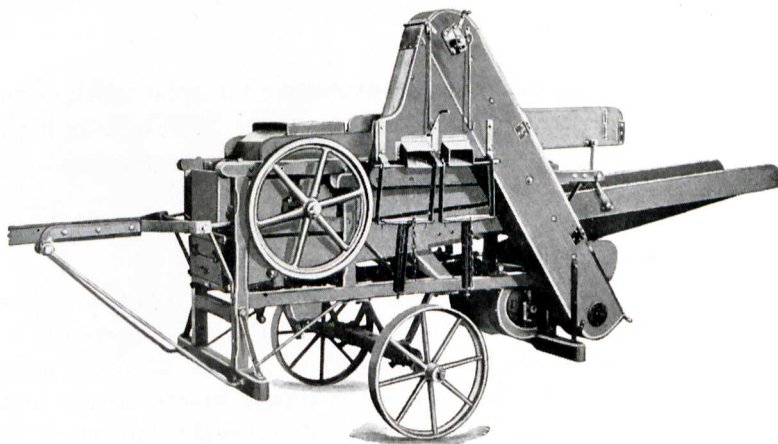
The *Sunshine* Firewood Saw Bench

This Bench is mounted on a substantial seasoned hardwood frame, and is heavily bolted and braced to stand up to severe wear and tear. The table is faced with stout sheet steel, making it practically everlasting. It slides on strong cast iron rollers, and has ample travel. The fence is adjustable for position, and may be set either for cross-cutting or ripping.



The spindle is 1½ in. diameter, with solid collars. It runs in grooved white metal thrust bearings. The fast and loose pulleys are 6 in. diameter x 5 in. face. Saws usually supplied are 26 in. or 30 in. diameter, to cross-cut respectively 7 in. or 9 in. logs. Other sizes may be supplied to suit users' requirements. A sliding belt-shifter is fitted with its handle conveniently placed for the operator.

The *Sunshine* Maize Husker and Sheller



Treats the cobs either with or without the husks on, and secures all the grain, delivering a good clean sample into the bags. Has capacious feed table and large riddles. Dust extraction ensures clean sample.

Capacity.—This machine will husk and shell (or shell only) 35 to 45 bags per hour.

Power required.—4 to 5 B.H.P.

Transport.—When desired, it is equipped with a pair of steel wheels, also with shafts for one horse or pole for two oxen.

Spare Parts are rarely needed but are always available.

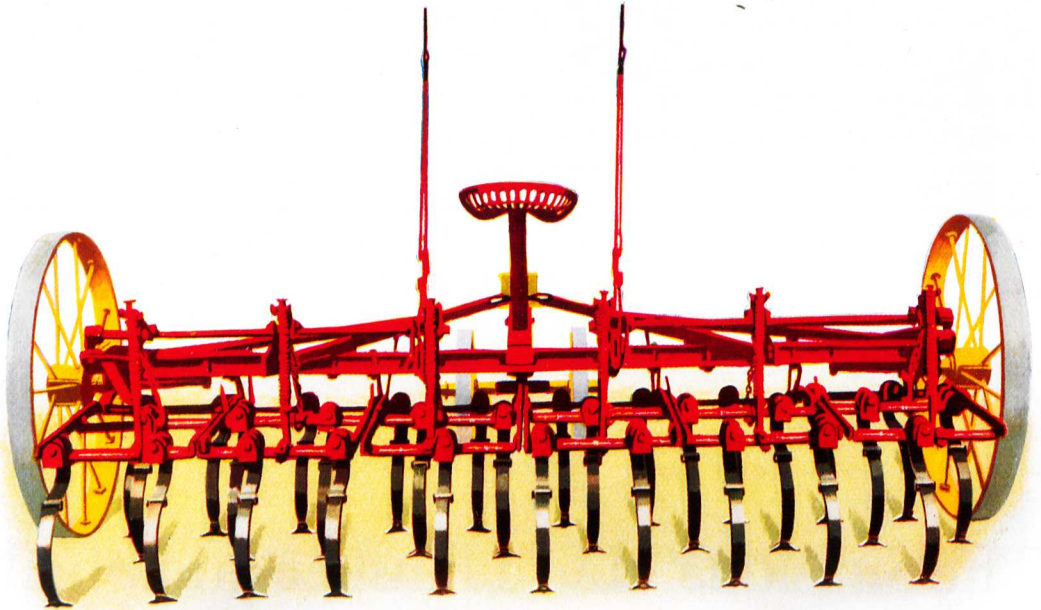
Special pamphlet, fully descriptive, will be sent post free on request.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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The Sunflex Spring Tyne Cultivator



Extraordinary strength of construction, permitting the great width of cut in the large sizes, and features of design herein described, mark the SUNFLEX as the most efficient tyne cultivating tool yet produced. Its clearance is much greater than heretofore, being 15 inches from rank to rank.

Strong stagger-spoked wheels, fitted on reversible stub axles, are mounted on the bed plate, which is of heavy section channel steel. This is connected to a forecarriage, the two heavy iron wheels of which are pivoted to permit of them adjusting to any irregularities of the ground. The forecarriage is rigidly braced to the bed-plate by six strong angle steel sections spreading fan-wise right across the implement, and supporting at their extremities the rods and compression springs which raise and depress the tynes.

To the bed-plate and angle steel supports are securely bolted the malleable steel arms that hold the tyne bearing floats. **These floats are jointed just behind the first row of tynes.** This feature represents the greatest advance yet made with this class of implement, for should an obstacle be encountered, the front tynes rise to clear it instead of taking the full strain, and the two back ranks are not affected until they in their turn rise to surmount the obstacle. The saving in wear of the tynes, and in fact of the entire cultivator, brought about by this notable feature, cannot be over estimated. A further result of the jointed float is that every tyne cultivates to an absolutely uniform depth.

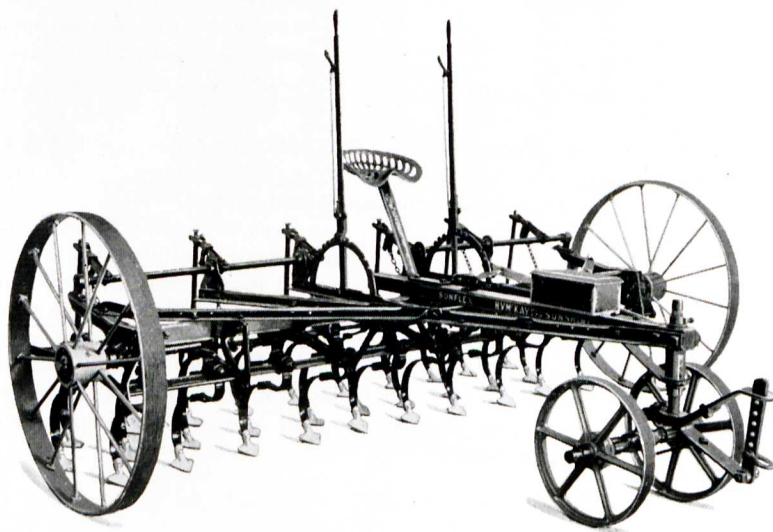
H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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Powerful lever pressure is provided, operating on the floats through long spiral springs and the tynes can be raised to a good clearance. The levers are pulled towards the driver when applying pressure, an arrangement which is approved of by all users. The depth of cultivation may be varied by shifting the bolt along a range of teeth in a steel bar connecting each lever to the swivel bar on which is mounted the rods and compression springs. The springs may be compressed and pinned at various points along the rods if it is desired to increase the pressure on the tynes. The implement has an exceptionally low draught, resulting in splendid balance.

The Spring Tynes are made of tempered steel, and each one is subjected to a severe test before being passed for use. They are securely fixed in three ranks, by adjustable clamps, to cambered cross bars of spring steel that span each float. These clamps may be shifted along the bar, should altered spacing be desired. Centre to centre, and taking in the three ranks, the tynes space 4 inches apart. This ensures that all the land is thoroughly pulverised with the ordinary $2\frac{1}{2}$ inch points. When specially ordered, for weed cutting, a set of 4 inch or 6 inch points can be supplied. On page 44 illustrations are given of the various points that may be used on this implement. A spring steel helper gives added strength to the tyne at point of greatest strain.



The comfort of the driver has not been neglected, for a shaped iron seat and foot-rest are provided, and a handy tool box is bolted to the forecarriage beam.

SIZES SUPPLIED:

15	tynes	(3 floats)	cultivating	5ft.
20	„	4 „	„	$6\frac{1}{4}$ ft.
25	„	5 „	„	$8\frac{1}{4}$ ft.
30	„	6 „	„	10ft.
35	„	7 „	„	$11\frac{3}{4}$ ft.

For well cleared country the implement may be fitted with Rigid Tynes in lieu of Spring Tynes.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sundigger

A Tyne Cultivator of Special Merit

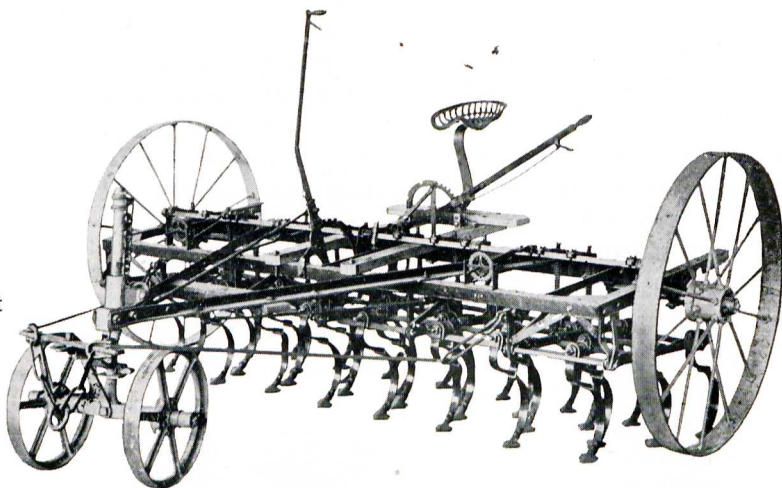
The Sundigger excels in respect of:—

Cutting out all the soil.

Killing all the weeds.

Great clearance between ranks.

Easy lift and depth regulation.



MADE IN FIVE SIZES:

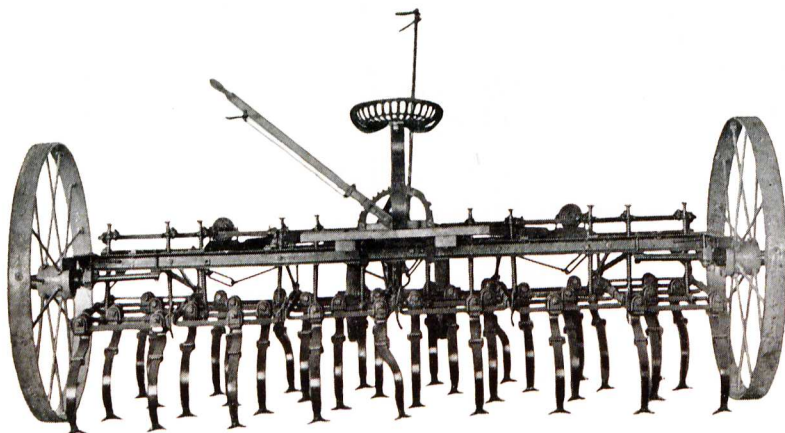
25 Tyne cultivates	7½ ft.
29 Tyne cultivates	8½ ft.
33 Tyne cultivates	9½ ft.
41 Tyne cultivates	12 ft.
49 Tyne cultivates	14 ft.

May be fitted with spring tynes, as illustrated, or with rigid tynes.

May be equipped with any of the Sunshine tyne points, as illustrated on Page 44, viz.: 1¼, 1½, 2½, 4, 5, or 6 inch. (1¼ and 2½ inch are reversible points.)

The Sundigger is the cultivating portion of the famous Suntyne Combined Drill and Cultivator. In wheat-growing practice it is largely used for maintaining the compacted sub-surface and well-pulverised top mulch which is so necessary for moisture conservation.

The tynes are in 4 ranks, and the clearance both from tyne to tyne and rank to rank is such as to enable the work in weeds or trash to be carried out most successfully. The lines of cultivation are only 3½ inches apart (centre to centre) so that the cultivation is most thorough, and when 4 inch or wider points are used no soil whatever is missed. The floats which carry the tynes are jointed, as on the Suntyne, for jumping over roots or stones. The rear lever pressure is ample for holding the tynes to their work in hard soil or for deep tillage, and the front lever is used to get uniform depth of work either deep or shallow. The SERRATIONS on the top of the spring tynes entirely prevent any slippage at the clamps. The rigid tynes are of V-shaped hard spring steel, and make splendid work in soil free of stumps or stones.



H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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The Sunglow Low Wheel Tyne Cultivator



Illustrating 13 Spring Tyne Size with Pole

A strong yet light two-horse Cultivator for Orchard, Vineyard and Farm. Works splendidly in land that is quite hard. Cuts out weed growth. When fitted with rigid tynes it renovates lucerne to perfection.

SIZES SUPPLIED:

7 tynes cutting 3ft.

11 tynes cutting 5ft. 4in.

9 tynes cutting 4ft. 4in.

13 tynes cutting 6ft. 4in.

The very best spring steel is embodied in the construction of the SUNGLOW, which has been built to withstand rigorous usage. Mounted on two strong wheels with stub axles, is the frame of stout angle steel, and rigidly braced to this frame is a solid steel bar one inch square, running the whole width of the frame. Four double angle malleable arms, each four inches long, clamp on to this steel bar, and to these are hinged the two floats that carry the tynes.

The hinged floats represent the greatest advance yet made with this type of implement, for by pressure of a single lever the tynes may be raised to a good clearance; also the pole may be raised to any angle, without affecting a perfectly uniform depth of cultivation. Two double strap iron pieces connecting the main float bar to the lever bar are equipped with a range of bolt holes to allow of the cultivating depth being varied.

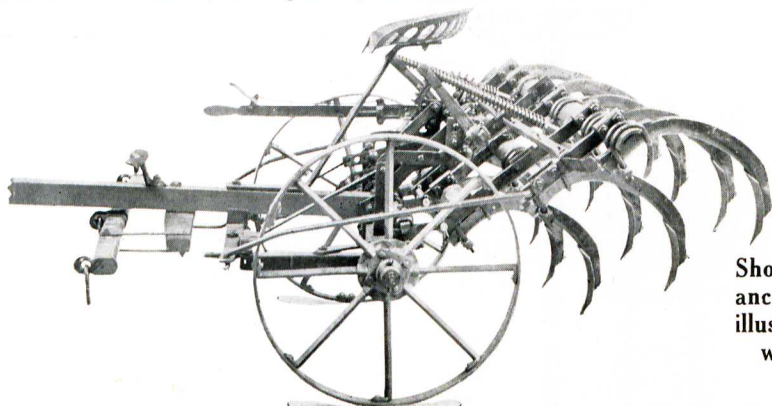
To the lever bar, which is of steel one inch square, are bolted the rods and pressure springs by which the tynes are lowered or raised. Attention is drawn to two strong braces of latticed steel that hold the lever bar firmly to the main frame. The springs may be compressed and pinned at various points along the rods if it is desired to increase the pressure on the tynes.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Spring Tynes are made of tempered steel, and each one is subjected to a severe test before being passed for use. Spaced six inches apart, they are securely fixed in three ranks by adjustable clamps to cambered cross bars of spring steel that span each float. The clamps may be shifted along the bar should altered spacing be desired, and by taking off the centre tynes, the implement may be used as a straddle cultivator. A spring steel helper gives added strength to the tynes at point of greatest strain. On the 11 and 13 tynes Sunglows, a round iron bar, running from front of the frame to the outside tynes on either side, acts as a guard, fending off branches and vines when the cultivator is at work in the orchard or vineyard.

The points usually supplied are $2\frac{1}{2}$ inches wide, which penetrate well and are good weed cutters. If desired, and specially ordered, points $1\frac{1}{4}$, 4, 5, or 6 inches wide can be furnished,

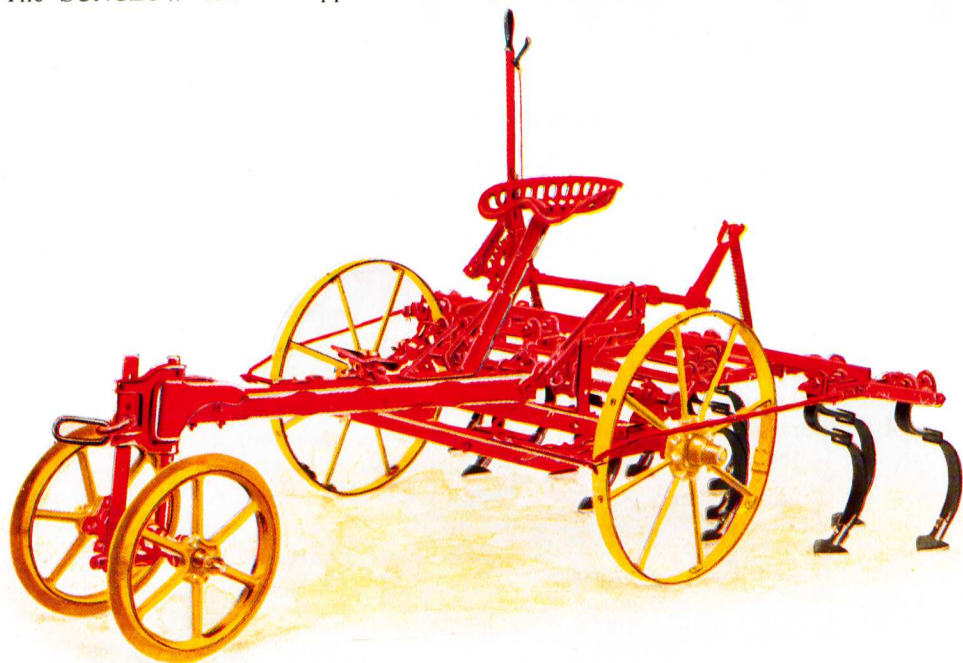
according to the nature of the soil to be stirred. See Page 44 for illustrations of the points.



Showing the exceptional clearance when tynes are raised, also illustrating implement equipped with Rigid Tynes and $1\frac{1}{4}$ in. points

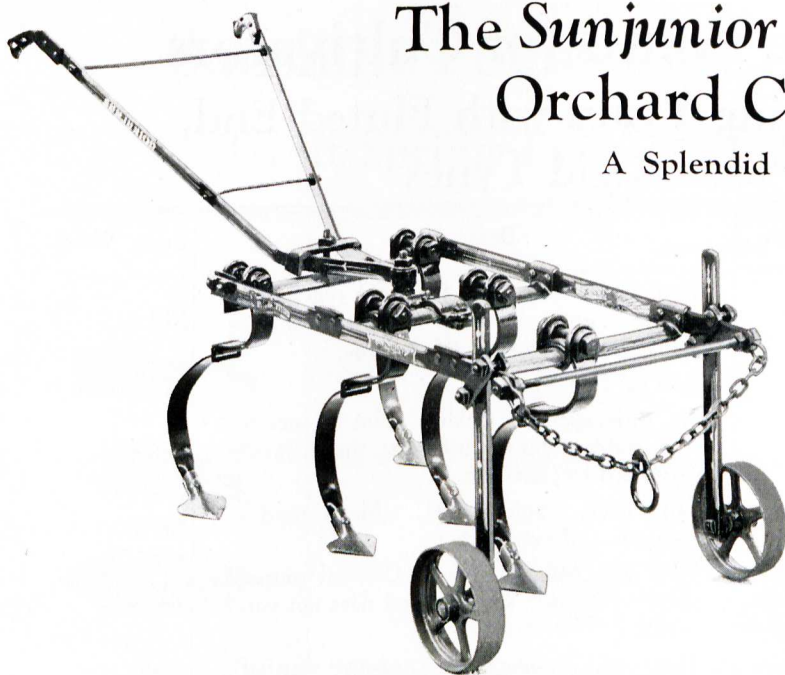
Standard equipment covers pole and swings for two horses, but either a forecarriage or swings for three horses can be supplied at a small extra cost if desired.

The SUNGLOW can be supplied with Rigid Tynes, as illustrated above, when so ordered.



Illustrating 13 Spring Tyne size equipped with Forecarriage

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



The Sunjunior One Horse Orchard Cultivator

A Splendid Single-horse Cultivator,
Weeder & Grubber
with Movable Handles

Has five spring tynes and cuts 30 inches wide when equipped with 6 inch points. May also be equipped with 1½, 2½, or 4 inch points, see Page 44.

Has two wheels which regulate the depth of the work to a nicety. The set of the spring tynes gives the best entering angle to the points, so that they will work in medium soil

without any pressure. With pressure on the handles they will cultivate very hard ground. Rigid tynes are supplied in lieu of spring tynes when so desired.

The tyne clamps are adjustable, and the tynes may be spaced at any distance apart according to the wish of the operator. By removing the central tynes, a row of plants may be straddled and cultivated each side. This implement has ample strength for two-horse work when working in hard or heavy soil.

Duplicate Parts

Duplicate Repair Parts must be available to the farmer at short notice, and to provide for this the Sunshine Harvester Works place full supplies not only at all Branch Houses, but at hundreds of Agencies throughout Australia, so that any part needed for a repair job can be obtained with a minimum of delay.

Expert Service

The Sunshine Harvester Works employ a very large number of factory-trained experts, who are stationed at each Branch House, and are at the farmers' call to demonstrate that all Sunshine Machines and Implements will do all that is claimed for them in actual work. These men may also be engaged for repair work at a reasonable charge.

Special Notice









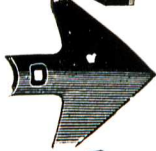

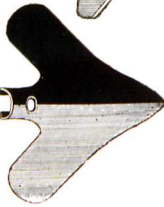

If a Price List is not enclosed with this Book, any farmer may obtain a copy of same by sending a post-card to one of the following addresses:—

H. V. McKAY Pty. Ltd.	.. .. .	SUNSHINE, Victoria
H. V. McKAY Pty. Ltd.	.. .. .	27-39 George Street West, SYDNEY, N.S.W.
H. V. McKAY Pty. Ltd.	.. .. .	102-105 North Terrace, ADELAIDE, S.A.
H. V. McKAY Pty. Ltd.	.. .. .	Cor. Murray and King Streets, PERTH, W.A.
H. V. McKAY (Queensland) Ltd.	.. .. .	Stanley Street, SOUTH BRISBANE, Qld.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Points for Cultivators









To fit Spring Tynes with Fluted End, also Rigid Tynes

	Number	Description	Code Word
	N513	1½ in. wide, reversible, for rigid tynes only, for renovating lucerne. Kills the surface weeds, but invigorates the lucerne.	NELAC
	N517	Bolt for N513 point.	NELEG
	N852	¾ in. wide, special "Tickler" point for lucerne. A desirable point for use when the surface is very hard to penetrate.	NIBAD
	N535	1½ in. wide, single ended. Much used in orchards and vineyards.	NEMKO
	N533	2½ in. wide, single ended. General purpose point. Fits flush on tyne and does not carry weeds.	NEMGK
	N842	2½ in. wide, reversible (narrow waisted). Gives double wear (being two-ended). Very largely used in general farm work, particularly for stirring fallow.	NIANO
	N532	4 in. wide. The famous point of the Suntyne Drill. Makes the compacted sub-surface on which seed and manure is dropped.	NEMEI
	N853	4 in. wide. Dutch Hoe style. Presents a 4 in. edge, and is very efficient for weed-cutting.	NIBBE
	N536	5 in. wide. Same purpose as N532, but gives more overlap cultivation for weed-cutting.	NEMNS
	N848	6 in. wide. Same purpose as N532, but gives still more overlap cultivation, and gets all the weeds.	NIAWX
	N851	8 in. wide, for rigid tynes only. A wide point used for scarifying.	NIAZA
	N534	Bolt for points N532, N533, N535, N536, N842, N848, N851, N852, N853.	NEMIM

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Points for Cultivators

To fit Spring Tynes with Flat Ends

	Number	Description	Code Word
	N525	$\frac{3}{8}$ in. wide, special "Tickler" point for lucerne, etc. Kills surface weeds. Invigorates the lucerne.	NELPS
	N524	1 $\frac{1}{2}$ in. wide, for garden and vineyard work.	NELOR
	N529	2 $\frac{1}{2}$ in. wide, reversible, giving double wear. Has flat face for fallow stirring. Used on several other Cultivators as well as Sunshine.	NELYA
	N528	Bolt for N524 and N529, when used on tynes with round hole.	NELWY
	N530	Bolt for N524 and N529, when used on tynes with square hole.	NEMAE
	N507	4 in. wide, for weed-cutting.	NEJUS
	N508	6 in. wide, for weed-cutting.	NEJVT
	N519	Bolt for points N507 and N508.	NELGI

The manufacture of these amounts to hundreds of thousands per annum. They are made of tough spring steel, and an extensive plant has been installed for the processes of shaping, sharpening, tempering, and polishing. They duplicate perfectly, and are noted for long wear, even in gritty soils. The 2 $\frac{1}{2}$ in. reversible is the most popular for general work on fallow, while the 4 in., 5 in. and 6 in. have much vogue for weedy conditions. The 1 $\frac{1}{2}$ in. single-ended is in demand for use in Closer Settlement areas, and is noted for dropping off the weeds readily when the tynes are raised. The 1 $\frac{1}{4}$ in. reversible is mostly used on the rigid tynes for cultivation in lucerne, etc.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



Note serrations at top of Spring Tyne, which prevent slipping in the clamp.



Spring Tyne and Helper Spring, complete with Clamp and 4in. point.



Rigid Tyne with Clamp and 1 1/4 in. reversible lucerne point.

Tynes for Sunshine Cultivators

Sunshine Spring Tynes

Are renowned throughout Australia for their famous temper. Not one is allowed to leave the Works until it has withstood a test that is **more severe** than can be given to it under working conditions. **Farmers visiting the Works are invited to view the testing.** Sunshine Cultivators have been known to work over thousands of acres of Mallee paddocks without a single broken tyne. The helper spring takes up the rebound and deadens the shock. The "fluted" lower end gives added strength at the bolt hole—just where strength is needed. The device for clamping the top of the tyne to the crossbar of the float is adjustable, so that the tynes may be set back to ease their work in stumpy or stony paddocks. Or they may be set forward, to give the best angle of penetration in hard soil. On the light garden and orchard Cultivators these tynes last a lifetime. In the heavy work required of them on the big-team machines, they stand the work longer than any other tyne made.

Sunshine Rigid Tynes

Are also made of spring steel. They are forged to a V section, which gives them enormous strength. No other tyne will stand up as well to the heavy work of cultivating a lucerne paddock or similar job in hard soil. Because of the V shape less surface is opposed to the passage through the soil, and thus the draught is lightened. Also, it permits of the effective use of the very narrow point (1 1/4 in.), which is greatly esteemed for lucerne renovation. This rigid tyne is the same as is used on the very successful Sundelve Combined Drill. **Any of the Sunshine Cultivators may be equipped with either the spring tynes or the rigid tynes, but spring tynes are recommended for all paddocks where roots, stumps, or fixed stones are encountered.**

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunpearl Disc Harrow or Cultivator

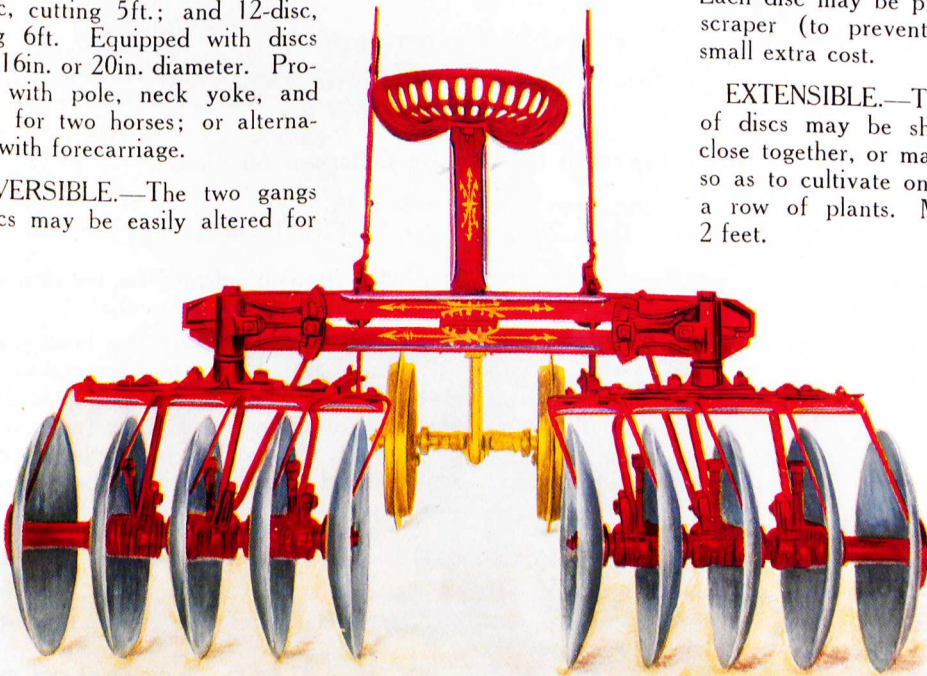
A Light-Draught Implement for Orchard, Vineyard and Farm Work

Three sizes—8-disc, cutting 4ft.; 10-disc, cutting 5ft.; and 12-disc, cutting 6ft. Equipped with discs either 16in. or 20in. diameter. Provided with pole, neck yoke, and swings for two horses; or alternatively with forecarriage.

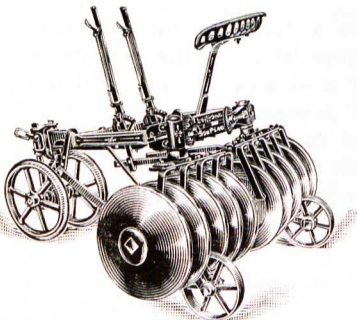
REVERSIBLE.—The two gangs of discs may be easily altered for

in-throw or out-throw of the soil. Each disc may be provided with a scraper (to prevent clogging) at small extra cost.

EXTENSIBLE.—The two gangs of discs may be shifted to work close together, or may be set apart so as to cultivate on either side of a row of plants. Maximum gap, 2 feet.

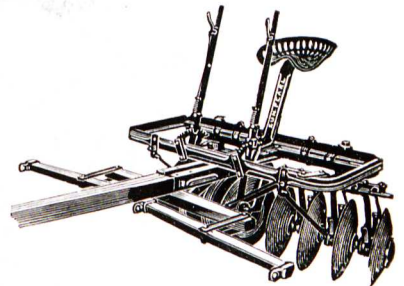


Rear view, showing 10 Disc Size, with Forecarriage



Sunpearl mounted on Transport Wheels

Very extensively used for bringing ploughed land to a fine tilth preparatory to sowing. A splendid tool for cultivating between rows of plants or in orchards and vineyards. Oil-saturated red-gum bearings are used, reducing friction, and making light draught. The scrapers (supplied if specially ordered) keep the discs clean in sticky soil. The Frame is of angle steel. All adjustments are easily made.



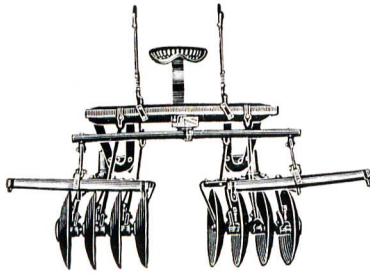
Front view of 8 disc size, with Pole and Swings

Transport wheels are available at small cost. These save the discs from damage when moving from place to place.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



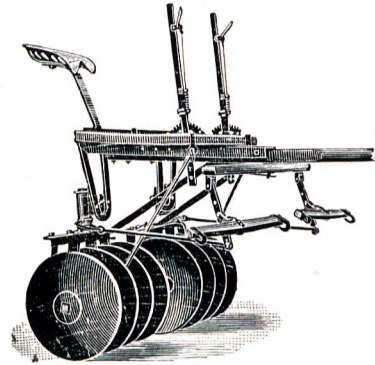
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Front view

The Sunking Straddle Disc Harrow and Cultivator

The Maize, Cotton, and
Sugar Cane Implement



Side view

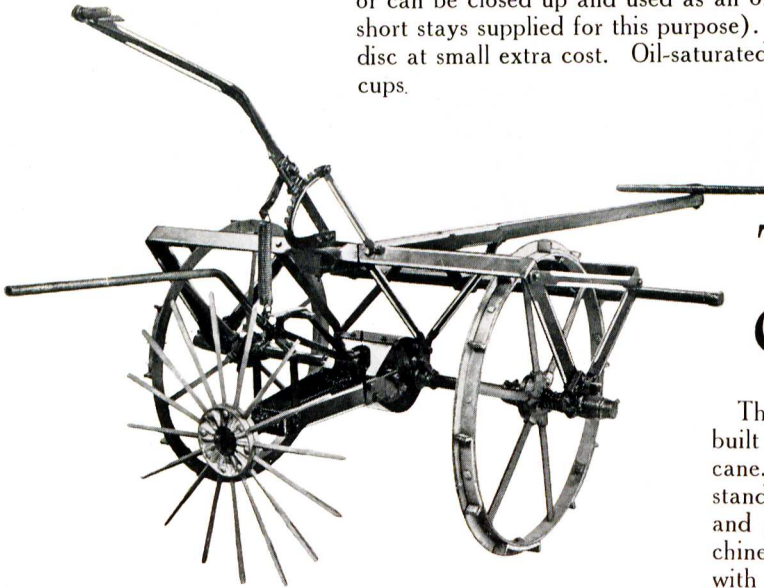
A Very Suitable Implement for Intensive Culture of All Kinds

Will Straddle Rows 2ft. 6in. wide x 3ft. high.

SIZE—8-discs, cutting 4ft. Discs, 20in. diameter. WEIGHT—4cwt. 2qrs.

This implement can be used for ordinary cultivation, but is specially adapted for use in maize, cotton, and sugar cane plantations, where the straddling of rows and fine tilth is essential.

Equipped with pole, wide neck yoke, and swings for two horses. The very low hitch makes easy draught. Cuts 2ft. each side of row. Vertical clearance, 3ft. Levers to alter cut to any workable angle. Gangs reversible for in-throw or out-throw. Extensible for any gap up to $2\frac{1}{2}$ ft., or can be closed up and used as an ordinary Disc Harrow (extra set of short stays supplied for this purpose). Scraper can be supplied on each disc at small extra cost. Oil-saturated red-gum bearings. Screw grease cups.



The Sunrotor Cane Weeder

This is a rotary weeder specially built to save labour in the weeding of cane. It is of great strength and will stand the severest test in both ratoon and plant cane. It is a straddle machine built on 3ft. wheels, and worked with two horses, although it requires

only the draught of about one. The operator walking behind has full control of the machine and can regulate the depth to a nicety with a lever attached for that purpose.

The rotary spider has tynes of the proper shape, set to clean all the weeds without damaging the cane, and so geared that it can be reversed to cut two ways.

The wheels are built on extension axles to suit the various width of rows, and the spider being suspended by a spring there is no likelihood of damaging the cane as with other rotary or tyne implements.

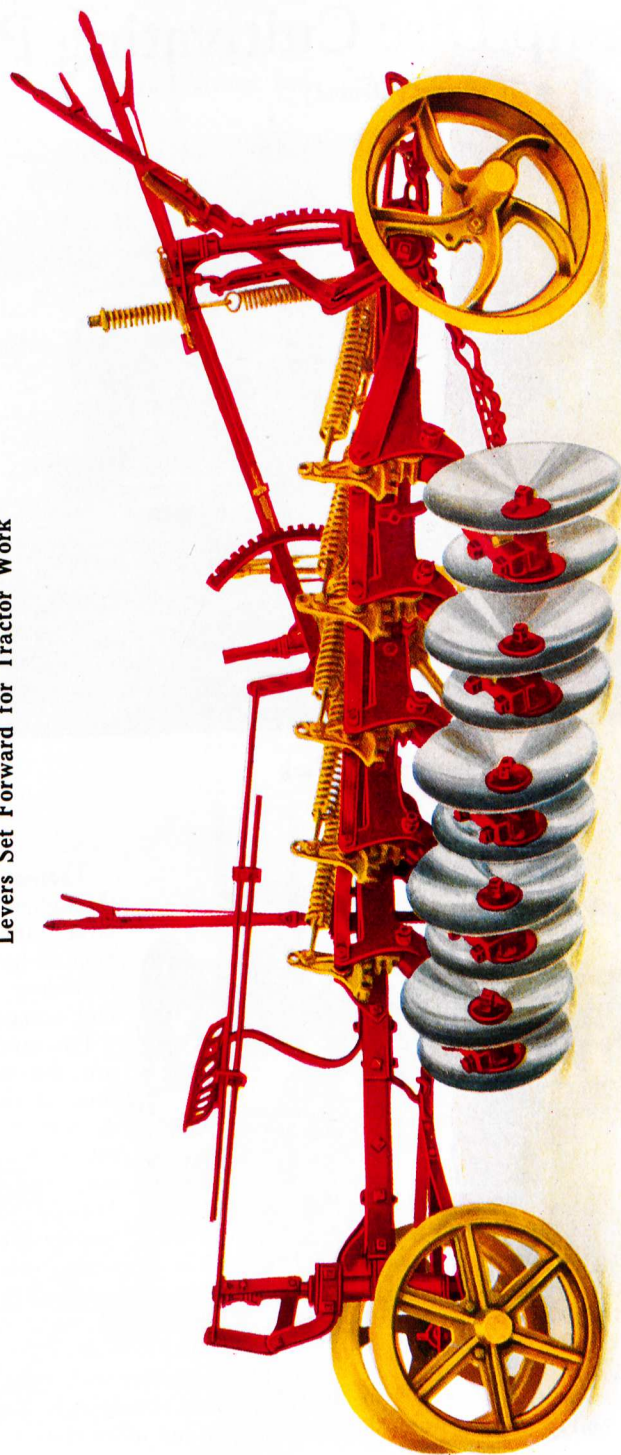
The Sunrotor will effectively clean with one man and two horses as much cane per day as six or more men can do with the hoe.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

THE SUNDERCUT STUMP-JUMP DISC CULTIVATING PLOUGH

(Patented)

Levers Set Forward for Tractor Work



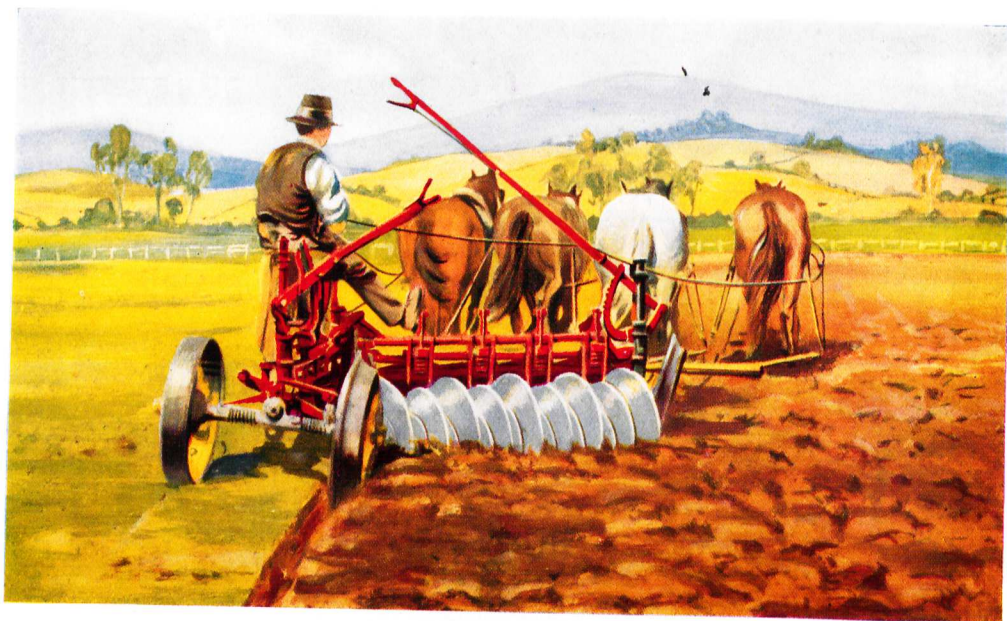
Two Sizes—10 Disc and 14 Disc

Turns More Soil per Horse-Power Used than any Other Disc Implement

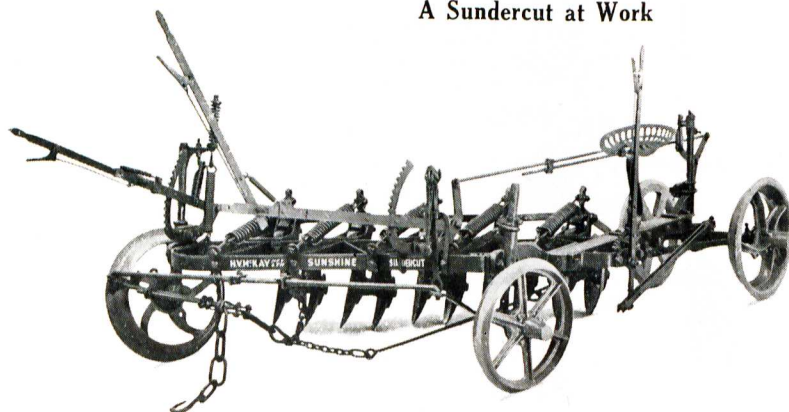
Levers can be Fitted for either Team or Tractor Work

The Sundercut Stump-Jump Disc Cultivating Plough

(Patented)



A Sundercut at Work



Front view. Levers Set for Tractor Pull

Thousands are in use throughout Australia, and large numbers of testimonials have been received regarding their effective and economical work.

Two outstanding features are the use of alternate discs of different diameter so that the discs may be set with sufficient undercut; and the use of the famous differential cog jump, which allows of a

high jump without increase of draught. This implement is made in two sizes respectively—10-disc, cutting 5 feet; and 14-disc, cutting 7 feet. It is adapted for rough country, or work amongst stumps or stones, which it will pass over without difficulty. The two discs on one jump are alternately 20 inch and 18 inch diameter, set with considerable undercut, to reduce the draught. Both discs cut to the same depth, but the varying throw of the two diameters leaves the surface in that granular state wherein most benefit is derived from the rainfall and atmospheric conditions. All the ground is cut out, and more soil is cultivated per horse than with any other disc.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The latest improvement is the use of two REAR WHEELS pivotally mounted to accommodate themselves to work at any "dip," as one runs in the furrow and the other on the land. A lever is provided to angle these wheels for more or less "bite," and in this way a very fine control and variation of the work of the discs is obtained, and straight furrows can be ensured.

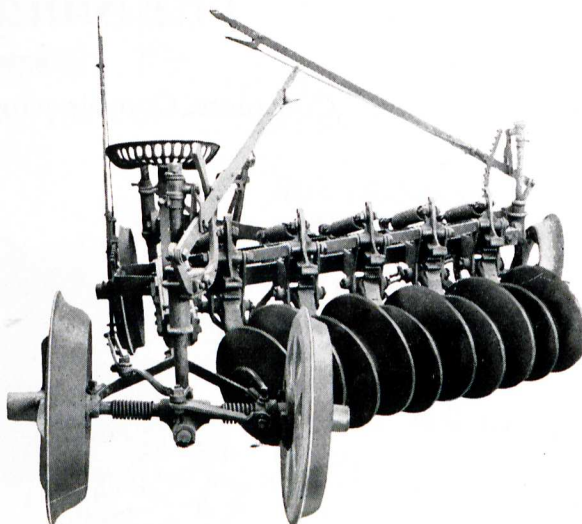
The Sundercut is unequalled for summer fallowing and ploughing in stubble.

Makes a splendid job cultivating hard set fallow, or fallow covered with heavy weed growths, such as paddy melon, stink wort, thistles, etc.

Does good work in virgin soil in Mallee districts.

Gives a more lumpy tilth than that of the old-style one-way discs.

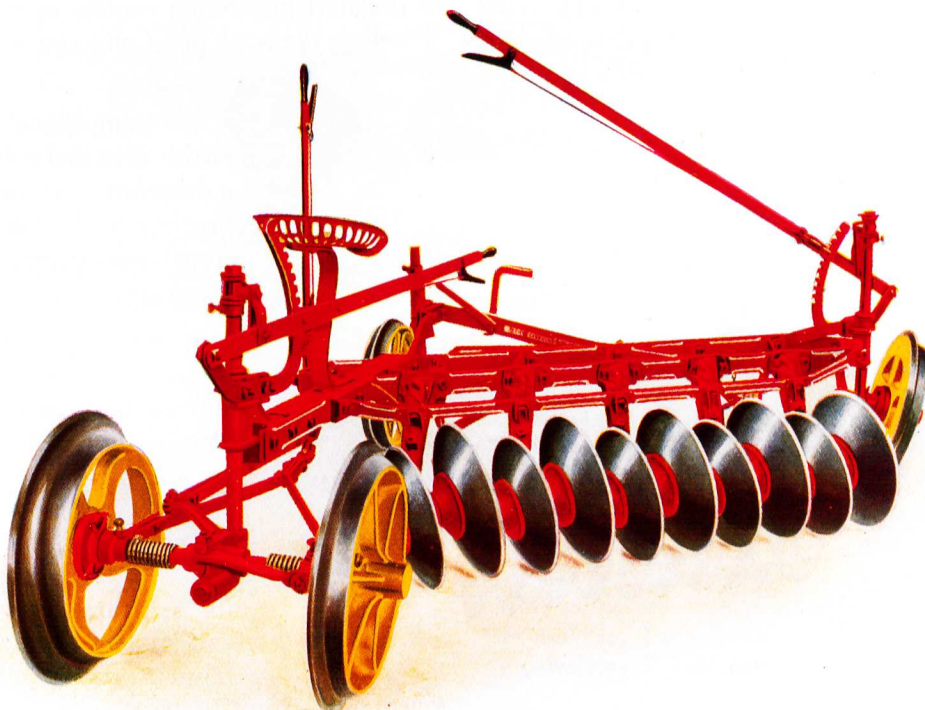
Its stump-jumping device is close to perfection.



Rear view. Levers Set for Team Pull

For work in thoroughly cleared country the implement is manufactured with set discs, as depicted below, and it is then known as—

The Sundercleave One-way Disc Cultivating Plough



The Sunderseeder

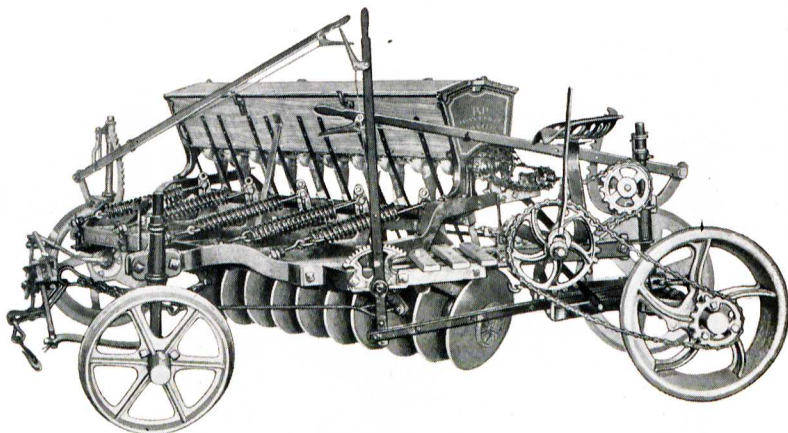
(Patented)

The Complete Combination for the Wheat-Grower

ONE IMPLEMENT FOR MANY PURPOSES

A combination of the Sundercut Stump - Jump Disc Cultivating Plough and the Sun Grain and Fertilizer Drill.

Has 10 discs, cultivating 5 feet wide (6 inch furrows). Sows the seed and fertilizer in 10 rows, 6 inches apart.



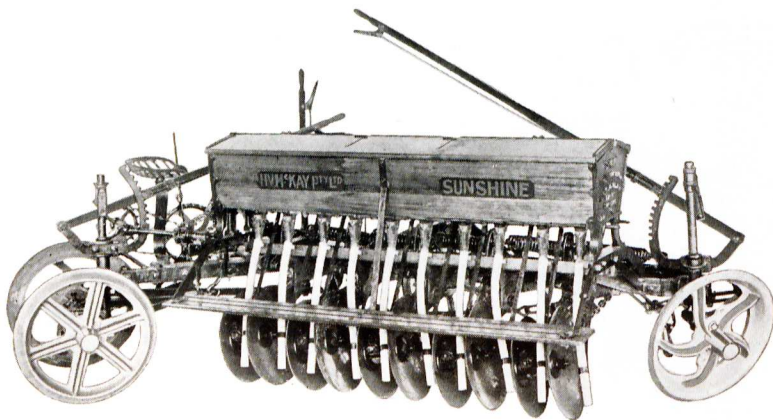
Nearside—Front view

Depth of sowing of the seed is adjustable for as shallow or as deep as may be desired, and the covering of the seed is perfect. The quantities of seed and fertilizer sown are variable to a very wide range, and the uniformity of sowing is assured.

This implement works perfectly under the roughest pioneering conditions in Mallee or Yankee-grubbed country or scrub lands. It will do the work of a Cultivator or Plough alone, or as a combination of Plough and Drill.

Its stump-jump devices enable it to make thorough cultivation in paddocks bristling with stumps and stones with a minimum of breakage.

It will also sow the seed in ground so covered with surface trash as to be unsowable with any other implement. Its work amongst Mallee shoots is unrivalled, and it is, in effect, a complete outfit for cultivating, ploughing, and seeding for the Mallee farmer.



Offside—Rear view

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

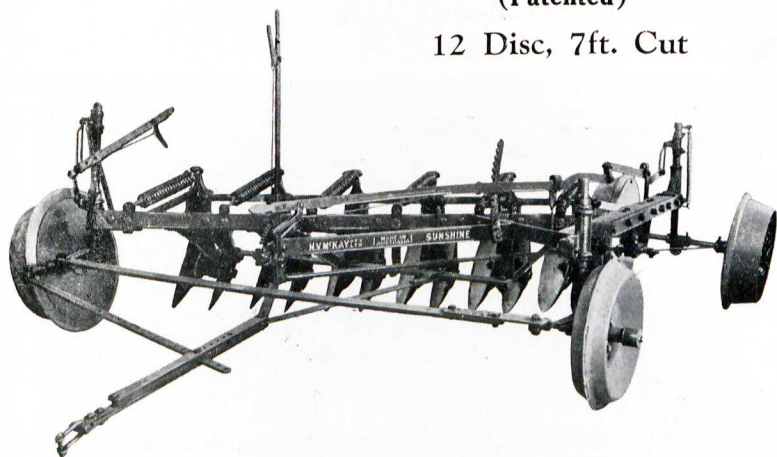


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The Sunshine Scrub Plough

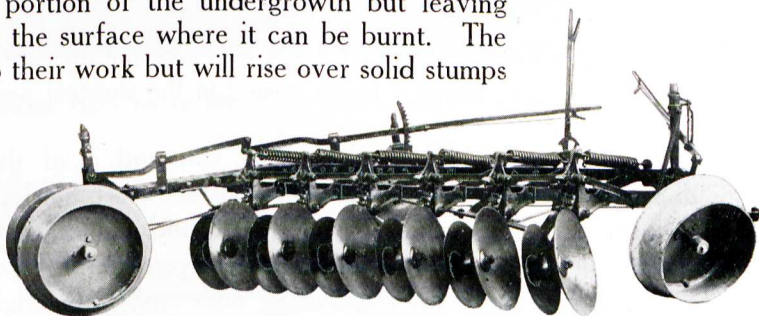
(Patented)

12 Disc, 7ft. Cut

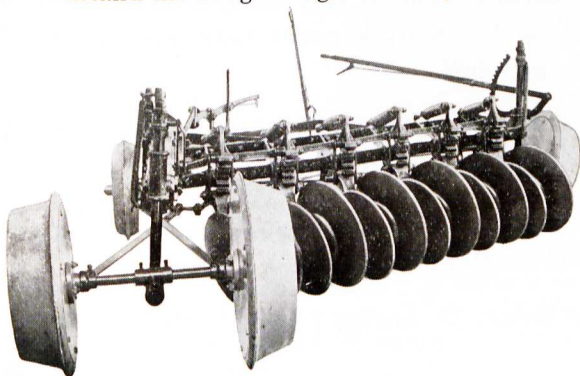


In parts of the great Australian wheat belt, particularly in Western Australia, there exist vast tracks of scrub country that would require the expenditure of considerable capital and an immense amount of labour before the land could be cleared and brought under cultivation by ordinary methods. To bring this

scrub country under cultivation without delay a powerful implement has been designed and built, the SUNSHINE SCRUB PLOUGH. This implement, drawn by a tractor of medium power, will tear its way through the tangled mass of roots and shrubbery, the heavy frame bearing down the scrub and the sharp discs cutting through trunks up to two inches diameter; burying portion of the undergrowth but leaving quite 90 per cent. of it on the surface where it can be burnt. The discs are held well down to their work but will rise over solid stumps and stones, the differential cog jump allowing of a high jump without increase of draught. Over 24 acres may be ploughed per day and furrows may be cut from 3 to 7 inches deep.



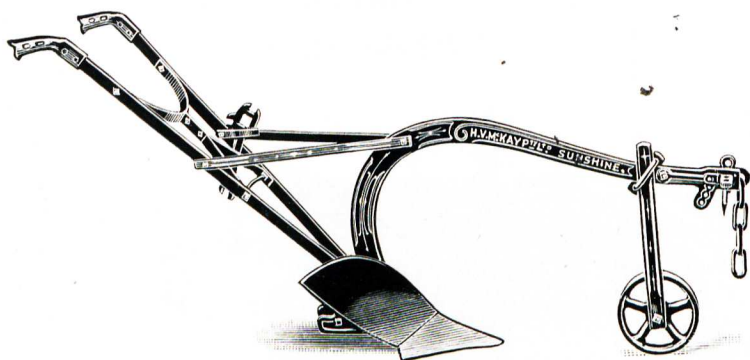
The Sunshine Scrub Plough is constructed on the same principle as the famous Sundercut Cultivating Plough, but is of heavier build, all the parts being of such strength as to withstand the rough usage that they are subjected to by the severe nature of the work.



The discs are larger than those on the Sundercut, being alternately 23 inch and 20 inch on each jump arm. There is thus plenty of clearance for the flow of scrub trash. For ordinary ploughing the plough may be drawn by a medium powered tractor or by a team of eight draught or ten average light horses. By tightening or loosening the governor steerage on rear wheels, the width of cut may be reduced to 6ft. 6in. or increased to 7ft. 4in.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunkid—the Pony Plough



THE SUNKID PONY PLOUGH is designed for hilling up to and cutting away from all classes of crops, from potatoes to maize, cotton, and cane, and also for garden work or any use where a small, handy Plough is required.

The beam is made of the very best high carbon steel, being of ample strength, with a minimum of weight, to do effective work.

The handles are set at a correct angle to give the operator full control of the Plough, and at the same time allow it to be turned in the shortest possible space.

The share, marked P319, gives a 7in. cut, and is of the best cast steel, and the mouldboard of the highest quality hard surface steel, hard as glass, and nicely polished. Will clean under all conditions, as the share and mouldboard are so arranged that there is no pushing of the soil, it having a clean sweep from the point of the share to the rear of the board, and the board is specially high and of the right set to properly turn the soil and give the lightest possible draught.

The landside is of good length (with a wide, removable wearing piece at heel) coming back beyond the line of the mouldboard. This is very essential, as it gives the Plough a perfect balance, and holds it well up to its work under varying conditions of soil.

The draught is so arranged that the horse can either walk in the furrow or on the land, and there is also ample adjustment for raising or lowering.

A depth-regulating wheel can be supplied, the wheel being of 2in. face, which has an advantage over the narrow-faced wheel when working in loose ground.

Overall length, 6 feet. Clearance at throat, 21 inches. Weight, 78 lbs.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunbird Single-Furrow Plough

A Short-Bodied, One-horse Plough, specially adapted
for Orchard or Small Farm Work.



A Young Ploughman working right up to the Vines with a Single Furrow Sunbird Plough



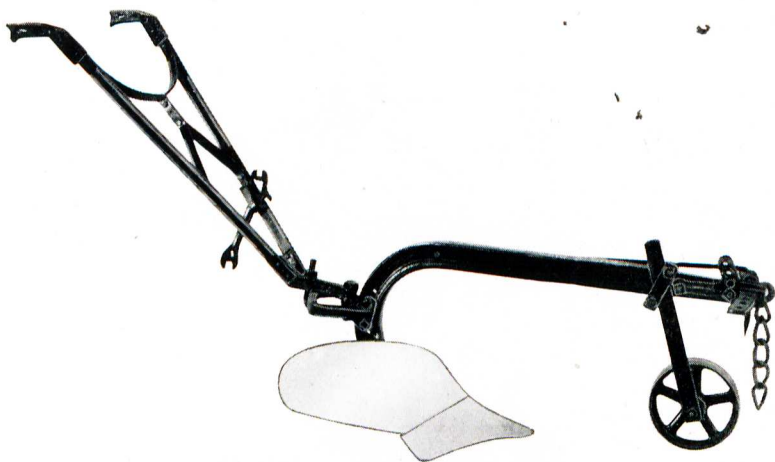
With Fixed Handles

Although a light Plough, weighing only 98 lbs., it has the strength for use with a large team or a tractor. This is because of the enormous strength of the bobbin section steel beam used in its construction. The end of this beam is forged to give solid support to a stout body plate, to which the landside and share are bolted. The landside is shaped with large bearing surface to give long wear. It is cheaply renewable.

The share, mark P. 198, is of cast steel, hardened and polished. It is firmly secured by two countersunk bolts. The mouldboard, 18 inches long, is chilled, ground, and polished to a hardness that enables it to scour in practically all conditions of soil. Its shape ensures good turning and burying, and it is much used for turning in green manure or weeds in orchard work. Its clearance at the throat is 16 inches.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

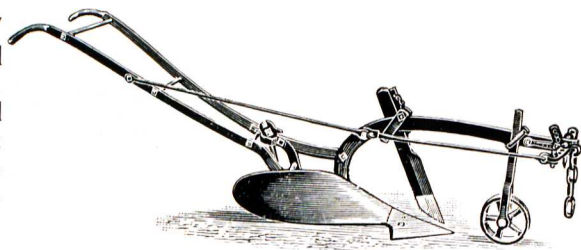
A vertical as well as horizontal rack is provided for draught adjustment, giving wide ranges. The rack stay is movable to either side of the beam. These devices permit of ploughing close up to trees with the horse well clear. The handles are well braced, and give ample control of the Plough, which is 6ft. long overall. For orchard work shifting handles are supplied. It can be equipped with a depth-regulating wheel, and a knife coulter or circular coulter.



With Shifting Handles

The Sunstar Single-Furrow Ploughs

THE SUNSTAR SINGLE - FURROW PLOUGHS are constructed entirely of steel, and are built on lines that will be admired by all good ploughmen. They are perfectly balanced and easily held. The mouldboard is of the best hard-surface steel, and is correctly designed to turn the sod completely over, burying the weeds and setting up a good comb. Special attention is called to the construction of the beam and foot, which are bent and forged from one piece of steel in such a manner as to make them practically unbreakable. The hitch is reversible, and gives wide adjustment for draught. Both sizes take D pattern shares, which are procurable at all stores—a feature which all farmers will recognize as a great advantage (see pages 68 and 69). They are light but strong, and do good work in any class of soil.



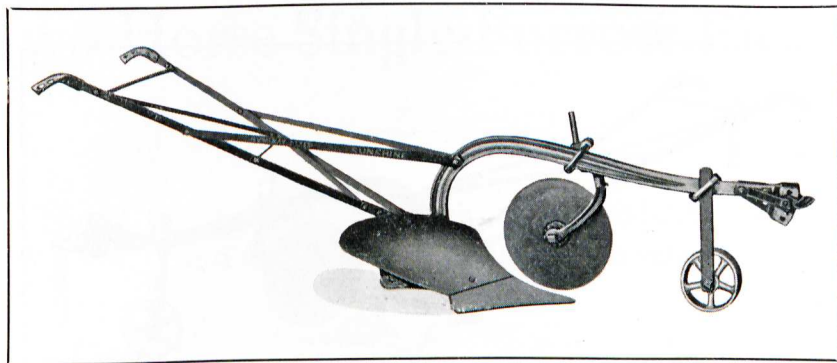
SUNSTAR No. 1 (as per illustration).—A one-horse Plough for orchard or garden. Mouldboard, 27in. long. Cuts furrows up to 5in. deep x 8in. wide. Weight, 128lbs. Length, 8ft.

SUNSTAR No. 1 M.H. (as above), but with movable handles for working close to trees in orchards, vineyards, etc.

SUNSTAR No. 2.—A two-horse general-purpose Plough. Mouldboards, 30 inches long (No. 1 Australian pattern). Cuts furrows up to 6in. deep x 9in. wide. Weight, 163lbs. Length, 10 feet. Knife coulter, depth-regulating wheel, or circular coulter can be fitted.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunglint Single-Furrow Plough



This Plough is designed for all classes of work where a single-furrow mouldboard Plough can be used. It is of special value to sugar-planters, maize and potato-growers, and others who have need for deep furrows in rich, loamy soil.

The Sunglint has a strong, high arch beam of bobbin section steel, with ample clearance for all classes and conditions of soil and trash. The handles are of ample length to give the ploughman absolute control of the Plough under all conditions. They are also attached to the main beam of the Plough (not to the mouldboard), and the mouldboard can easily be detached for skeleton ploughing. This is a great advantage in the sugar districts, as this Plough can be used as a Skeleton Plough or a Sub-Soiler if necessary. The mouldboard is shaped so as to give easy draught, and at the same time perfectly turn the furrow. The share is of perfect design, and shaped so that the soil will slip from the share along the board without pushing the soil, which fault is common in many makes of Ploughs where the mouldboard and share are not correctly designed. The share is also simple to remove and replace. It may be fitted with a knife coulter, or a circular coulter with blade of large diameter. The coulter and depth regulating wheel are supplied at small extra cost.

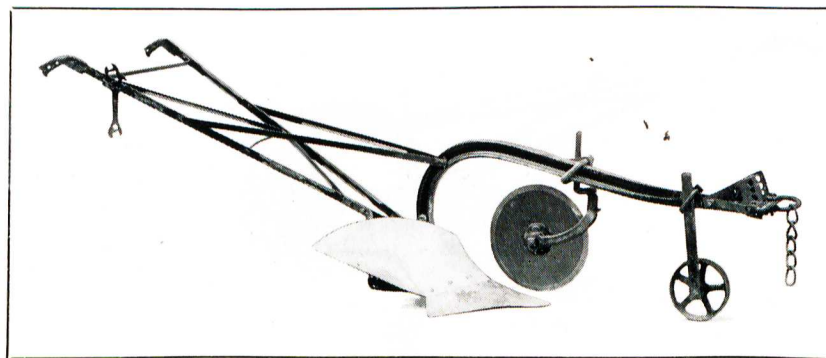
SPECIFICATION:

Steel handles; bobbin section steel beam of enormous strength; polished steel mouldboard, 25½ inches long; share, secured by one ½ inch eye bolt and clip; clearance at throat, 20 inches; turns furrow up to 10 inches deep by 12 inches wide; overall length, 8 feet 10 inches; weight, 149 lbs.

Strongly built of the best materials obtainable, this Plough gives many years of satisfactory and efficient service.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The *Suncrescent* Single-Furrow Plough



Unequalled for Deep Furrow Work in Heavy Soils

Of similar construction to the Sunlint (described on previous page), the *Suncrescent* has a high arch beam of bobbin section steel, with ample clearance (20 inches at the throat) for soil and trash. The steel handles, which are attached to the main beam of the plough, are of good length, giving the ploughman absolute control over the implement under all conditions. The mouldboard can easily be detached for skeleton ploughing or sub-soiling.

The turn in the mouldboard has been designed for work in heavy soils where much clearance is desirable. The board has a gentle sweep which results in perfect scouring, and is polished to a glassy surface. The sod is completely turned and all trash buried. As a result of the splendid design and set of the board it sets down to its work without any effort on the part of the ploughman.

The share is of efficient design, so shaped that the soil slips from the share along the board without resistance. The share is easily removed and replaced. A circular coulter of ample diameter and a depth-regulating wheel can be supplied.

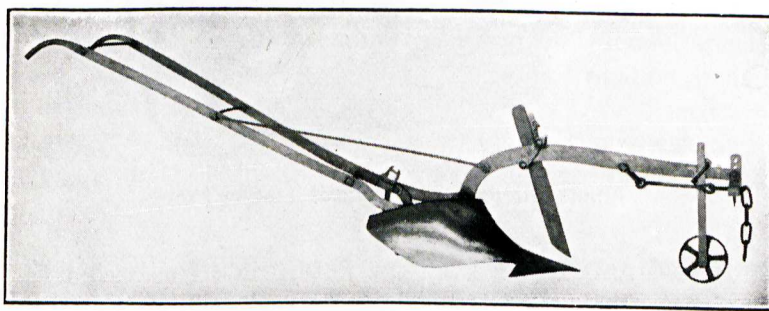
The *Suncrescent* will turn furrows up to 10 inches deep by 12 inches wide. Its overall length is 8 ft. 10in.; mouldboard, 25½ inches long; total weight, 149 lbs, and it may be drawn by two horses.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunwrest

Two-Horse Single-Furrow Plough

Noted for its Great Strength and its Ability to Cut
and Bury Heavy Surface Growths



The beam and body are forged from one piece of high carbon steel, giving the greatest possible strength. The mouldboard, which is 27 inches long by 12 inches deep, is chilled and polished almost to the hardness of glass, and will scour in practically any condition of soil. It ploughs furrows up to 9 inches wide and up to 10 inches deep, and as it has 18 inches clearance at the throat it is famous for cutting and burying heavy weed growths.

The forged foot takes a socket share marked S.V., and either wrought steel or chilled cast shares can be fitted. These S.V. shares have greater dip (both ways) than ordinary patterns, and this facilitates entering and holding in hard ground. For particulars re shares, see pages 68 and 69.

The overall length is 10ft. 2in., and the long steel handles give wonderful control even in rough lands. The draught rack has a wide range of adjustments to suit the team and the work. The pull, from the middle of the beam, lightens the draught. This Plough can be fitted with depth-regulating wheel and knife coulter, or circular coulter. Weight of Plough, 1½ cwt.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



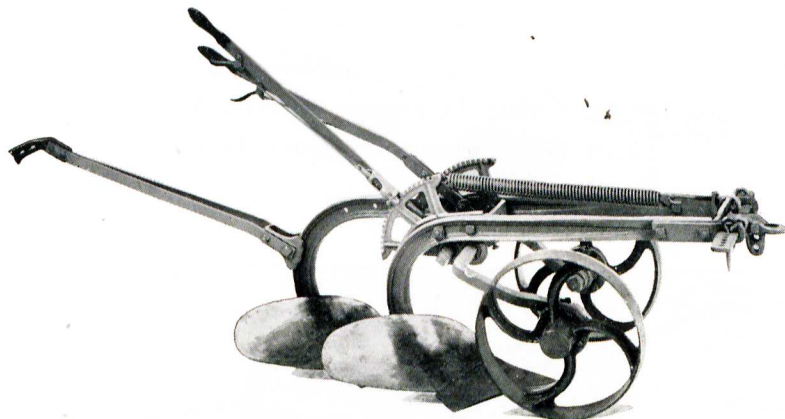
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The Sunbird Mouldboard Plough

Two and Three Furrow Sizes

For Orchard, Vineyard and Farm

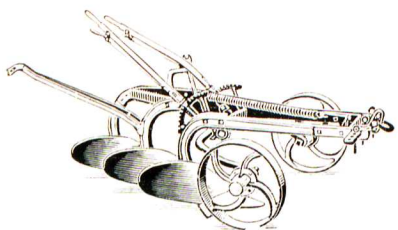


Ample Strength for Team or Tractor Pull

THE SUNBIRD TWO AND THREE FURROW PLOUGHS are unexcelled for "ploughing in" green manural crops and weeds. They are also splendid implements for general work in small-area farming.

The beams are of hard bobbin section steel, giving all the strength needed for either team or tractor pull. The body plate is anchored firmly to the forged bottom end of each beam, and to this the landside, share, and sole plate are attached. The sole plate, of heavy design is designed to give long wear, and is cheaply renewable. The share (marked P 198) is of hardened cast steel, and is secured by two countersunk bolts. The mouldboard is 18in. long, and its curve is such as to ensure good turning and burying. It is of tough steel, case hardened and polished, and will keep clean even in sticky soils.

Splendid clearance is provided in the lead from body to body. The wheels are equipped with oil-retaining dust-excluding boxes. Each wheel is raised and lowered by an independent lever, that for the furrow wheel being assisted by a helper spring. The levers are amply powerful and provide for perfect setting and depth regulation. **The Levers are down when the Plough is at work**, so presenting but little obstruction to the passage of the implement under low branches. A handle is fitted for the convenience of the driver in manipulating the plough.



A feature is the draught rack which permits of a wide range of adjustment, and which may be easily moved further out on either side in order to still further extend the range of draught adjustment. The comfortable working of the team is thus provided for, and the plough is enabled to work close in to trees or vines. The wheel axles may be set further in if it is desired to plough close up to trees or vines.

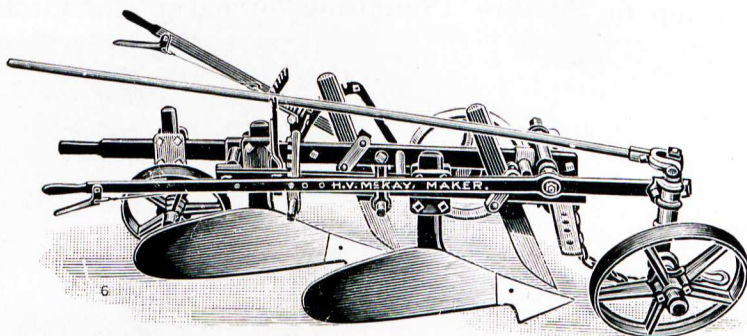
The plough is often worked without coulter, but knife or circular coulter can be supplied. Cuts furrows up to 8ins. wide and to 6ins. deep. Clearance at throat, 16ins.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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The *Sunstar* Double-Furrow Plough



SUNSTAR No. 14 is a light-weight Double-Furrow Plough, specially suitable for orchard and vineyard work, but is also largely used on irrigation areas and on ordinary farms in light-soil districts. It cuts furrows either 7, $7\frac{1}{2}$, or 8 inches wide, to a depth of up to 6 inches. As it leaves factory it is set on the 8 inch cut, and the reduction in the width of furrow is simply made by removing a distance piece from the centre of the spacing bars.

It is supplied with a shifting bridle of great range, giving the means of keeping the team well away from trees or vines on either side.

Another special feature of this Plough is the construction of the lifting levers, which are "down" when the Plough is in its working position, and the highest part of the Plough is then not more than 2 feet above the ground. This feature is specially appreciated by orchardists who desire to plough close up to the trees.

It is manufactured with spring steel frames, and its strength must not be judged by its lightness. In light soil it is easy work for two horses, but it is amply strong for a three-horse team when used in heavier soils. The mouldboards are chilled, ground, and polished, and the finish of the whole Plough is such as to take the eye of a keen ploughman. Removable axles and chilled axle boxes are standard.

In the ordinary way it is equipped with knife coulters and wrought steel shares, D pattern, mark B, but cast shares can also be supplied if preferred (see pages 68 and 69). It is direct steered by rod and rack, and is a Plough which can be handled with ease by a boy. Weight, only 4 cwt.

The land wheel carrying bar is made of extra length, enabling the wheels to be let out in rough country, thus steadying the Plough. When working close to trees the land wheel can be reversed to run under the frame. 11 in. disc coulters, in lieu of knife coulters, can be fitted at slight additional cost.

For constant work on an orchard or mixed farm, this Plough will give a long life of excellent service.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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The Sunwrest Double-Furrow Plough

For Deep or Shallow Ploughing on Farm and Orchard



The Sunwrest ploughs furrows 8, 9, 10, or 11 inches wide, up to 8 inches deep. The mouldboards are of special steel, with a glass-hard surface, and will clean in any soil. They are 27 inches long and 11 inches deep—turn well and cover splendidly.

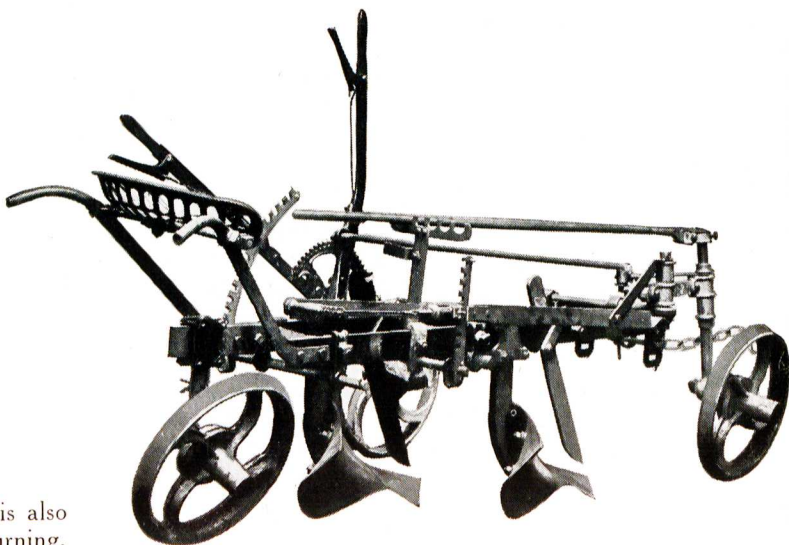
The bodies and beams are of wrought steel, and the 4-bolt clamps hold the bodies in place without any possibility of shifting. Governor steering is provided, so that one furrow may be wholly or partly cut out for straightening and finishing.

Rod and rack steering gear is also provided for convenience in turning.

A special feature of this Plough is its splendid clearance between body and body, allowing a free flow of the soil and trash between them.

The foot and share are shaped to lead the soil to the mouldboard in an even sweep to facilitate turning and burying.

The shares, marked S.V., are supplied either in wrought steel or in chilled cast (see pages 68 and 69). This share has extra dip and slope, making it enter and hold well in hard soil. The Plough is equipped with a seat as well as with handles, and may be fitted with knife coulters or with circular coulters.



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The Sunlock Mouldboard Plough

A Plough for the Ploughman who takes pride in Clean, Even Furrows. Its Polished Mouldboards are Glass Hard on the Face, and Clean in the Stickiest Soil



It is a favourite in the Riverina and in all parts where the sticky nature of the soil demands a self-cleaning board. The greatest care is bestowed on the shaping, tempering, and polishing of its mouldboards, which are renowned for non-clogging, even under the most difficult conditions. The width of furrow may be altered at will from $7\frac{1}{2}$ inches to 9 inches, or to any intermediate width. This is accomplished in the simplest fashion by sliding the body beam clamps along the diagonal frames. The adjustment is effected in a few moments, and is a very great convenience. The compound lever governor steering device enables the ploughman to vary the width of the front furrow instantly, and to keep the work even and straight. When finishing, the front furrow can be cut out entirely if necessary. When it is desired to reduce the number of furrows, either the front or back body may be detached from the Plough, but for work in hard ground it is preferable to remove the front body.

The frame is made of warranted spring steel, and will resist very severe strains. The body and foot are forged from one piece of toughest steel, and are wrought to an accurate fit for mouldboard and share. The D pattern feet take B shares (see pages 68 and 69), and one set of wrought steel shares is supplied with each Plough. A strong adjustable rear-stay is fitted to each mouldboard.

A set of knife coulters is provided with each Plough; but circular coulters are supplied instead when so ordered, at a small extra charge. Each Plough is equipped with a seat for the driver.

The differential cog lift on the lever of this Plough makes it so light to lift out at the headlands that a youth can work it without effort. Every practical farmer will appreciate this feature, and also the ease with which the depth can be regulated while the Plough is in motion.

The three cast-iron wheels are fitted with removable boxes with chilled wearing surfaces. They are dustproof and retain the oil.

The Sunlock Plough is made in 2, 3, 4, and 5-furrow sizes, and each Plough is fitted and finished by skilled workmen under the best expert supervision obtainable.

Three-furrow and larger are fitted with swivelling land wheel, giving great facility for turning at the headlands.

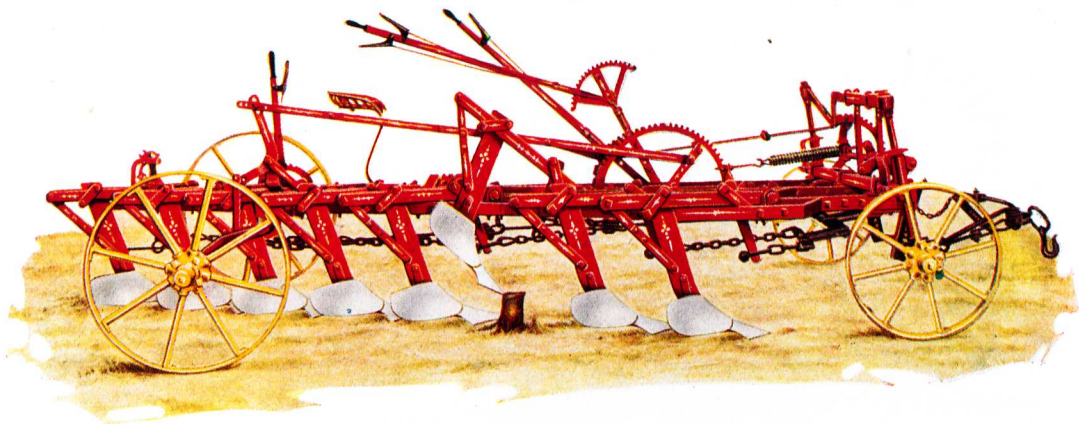
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The Sunprince Stump-Jump Mouldboard Plough

8 Furrow. For Skimming or Fallow Ploughing



In the design and construction of the Sunprince Plough no considerations of economy were permitted to interfere with the production of an implement that would do its work to perfection and stand up to its job for a very lengthy period of years.

The Sunprince is a two-purpose Plough. It is unexcelled for shallow skimming work, and it is also greatly used for fallow ploughing to a depth of four inches. The bodies have a **lead** of 16 inches from one to the next, and this gives fine clearance for the passage of the soil. The width per furrow is $7\frac{1}{2}$ inches, giving a total cut of 5 feet wide.

THE FRAME, of high carbon spring steel, is so strong and so rigidly braced that it successfully resists all strains put upon it in normal work, even in the roughest Mallee paddocks.

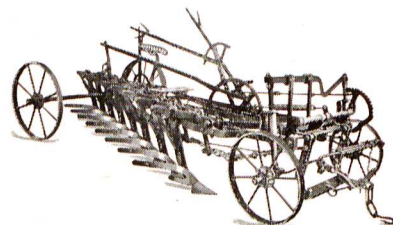
THE FOUR WHEELS have steel tyres and spokes, and have an ample margin of strength. They are fitted with renewable axle boxes, and each one has a large force grease cap which provides for perfect lubrication.

A **CRANKED AXLE** carries the two rear wheels. It is of $2\frac{1}{4}$ inch steel, giving very ample strength. A **Sideling Lever** is fitted for adjusting the inclination of the rear wheels to overcome the tendency to slip in hillside work.

THE JUMP BEAMS, which carry the Plough bodies, are of finest spring steel. They are of one-piece folded construction, and at their fore-ends are keyed to a spindle which is mounted on long bearings clamped to the frame beams. These bearings are renewable, but if kept lubricated will last indefinitely.

THE PLOUGH BODIES are also of finest spring steel, being the best material procurable for this work. The body and foot are forged from one piece, the toe being pressed to an exact fitting for the mark "P" socket shares with which the Plough is equipped. The top of the body is clamped to the jump beam, and a separate diagonal strengthening member is bolted from rear of the jump beams and to the middle of the body. This construction permits of a very simple and effective method of altering the "dip" of the foot. When three nuts are slackened a "scissor" movement is obtainable, so that the desired set for dip may be achieved.

THE MOULDBOARDS are case-hardened and ground and polished to a glass like surface, which will clean in almost

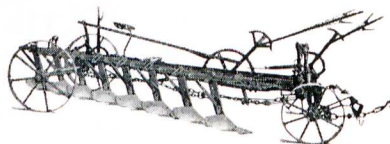


The Sunprince with Skeleton
Boards—Levers set for Team Work

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

any condition of soil. They are 19 inches long by $8\frac{1}{2}$ inches deep, and are firmly attached by a heavy stay which is double-bolted, both to the body and the board. This stay is so arranged as not to interfere with the clearance in the slightest degree. **Skeleton Mouldboards** may be fitted in lieu of the above. These will work in the cloggiest soil, and they make a notable reduction in the draught of the Plough. They are preferred by some users for work in any class of soil.

THE SHARES fitted to this Plough are the mark "P" pattern, always popular in stump-jump country. They are of the "Pivot Clip" design, and are flush on top, having no break in the surface to cause the soil to bank up. Like the boards, they scour well. They are of wrought steel, and have a 7 inch wing. When specially ordered, this plough is fitted with special bodies taking plate shares, and these are esteemed for shallow skim work. For particulars of shares, see pages 68—70.



The Sunprince with Standard Boards—Levers set for Tractor Pull

THE JUMPING DEVICE permits of any foot rising 24 inches to clear an obstacle. It is controlled by the team draught through steel equalising bars, rods and chains connecting to the drop hitches on the jump beams. The roller connection at the drop hitch assists quick movement, and also eases the jar on the team when a stump is struck. This feature prevents straining of the frame of the Plough, and saves breakages that might otherwise occur.



The Sunprince Breaking Up Hard Set fallow

THE FRONT of the Sunprince is of immense strength and takes the strain from the team without fear of damage. From it is suspended the draught gear, which has ample provision for adjustment both laterally and vertically.

T E A M STEERING GEAR is provided, the two front wheels being coupled by adjustable rods, to work in unison.

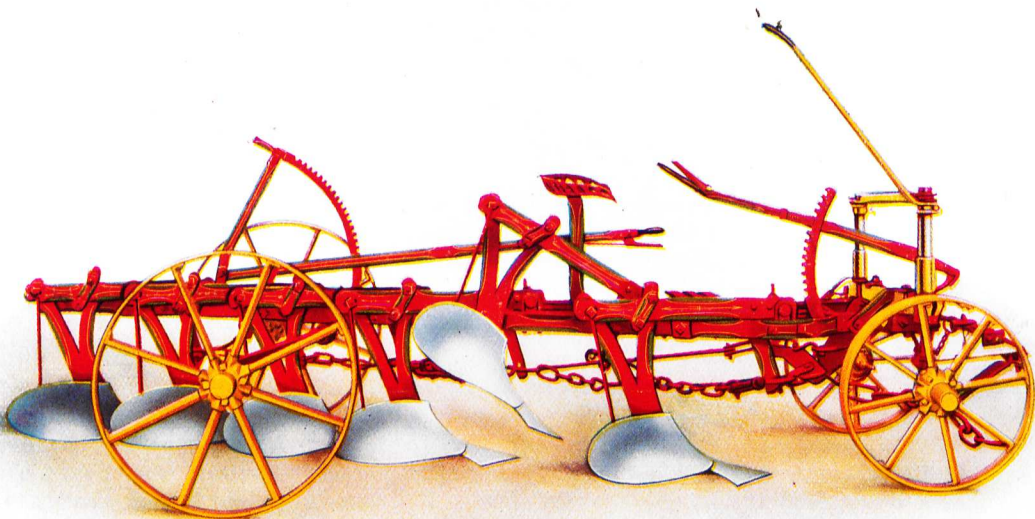
TWO LIFTING LEVERS are fitted, both of which are placed conveniently for use from the driver's seat. One lever lifts the rear and the other the front of the Plough. The leverage is ample to enable the driver,

with a minimum of effort, to regulate the depth of the work, or to lift the bodies clear of the ground for transport. **For working behind a Tractor** the levers are so arranged that they may be reversed and placed in a forward position to bring them within the grasp of the Tractor driver. One great convenience on these levers is the positioning device, so that they may be placed convenient to the driver's hand, whether he is on a high or a low Tractor. This is accomplished by using a jointed lever, and an additional rack.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunrise Stump-Jump Mouldboard Plough

The Mallee Farmers' Plough
A Necessity in all Roughly-cleared Districts



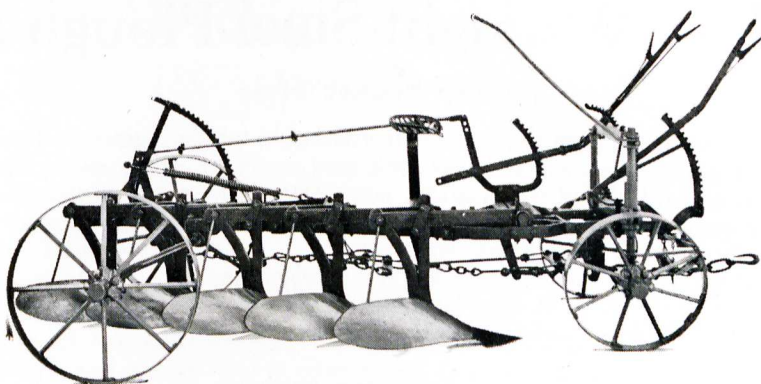
The Sunrise Stump-Jump Mouldboard Plough is known all over Australia for its first-class work in stumpy and stony ground. By its use many thousand acres of roughly-cleared land have been tilled years before they were fit for cultivation by any ordinary "set" Plough.

The frames are made of best spring steel. They are solidly and rigidly braced to give ample strength to the foundation of the Plough. The four wheels have wrought iron rims and spokes, and removable boxes which retain the oil and are dustproof. The front wheels (coupled) are swivel, and respond automatically to the steering control of the team, and a hand-steering lever is also provided, and is of great assistance in straightening the furrow and in turning at the headland.

The rear of the Plough, even in the largest sizes, is easily raised by the long compound pressure lever, which also has an adjustment to give a specially high lift when travelling on the road. The front of the Plough is also raised and lowered by a conveniently placed lever and rack. The jump beams and bodies are made of spring steel, and special attention is directed to the superior construction of the jump hinge, which is composed of an accurately fitting turned steel spindle working freely in a pair of bearings clamped to the frames.

Mouldboards are of hard-surface steel of most approved curve and shape for stump-jump work. The jump control gear has compound adjustments to provide for easy jumping where stumps and stones abound, or to hold the shares firmly to their work in hard soil. The roller release on the drop hitch ensures jumping without jerking. It relieves the jar on the horses. An ingenious device provides for giving more or less "dip" to the shares; this consists of an adjustable slotted connection between the jump arm and the rear member of the Plough body, and by varying the position of the bolt in the slot an extra half-inch of "dip" may be applied to the shares when necessary, or, vice-versa, the amount of "dip" may be reduced. For particulars re shares see pages 68 and 69.

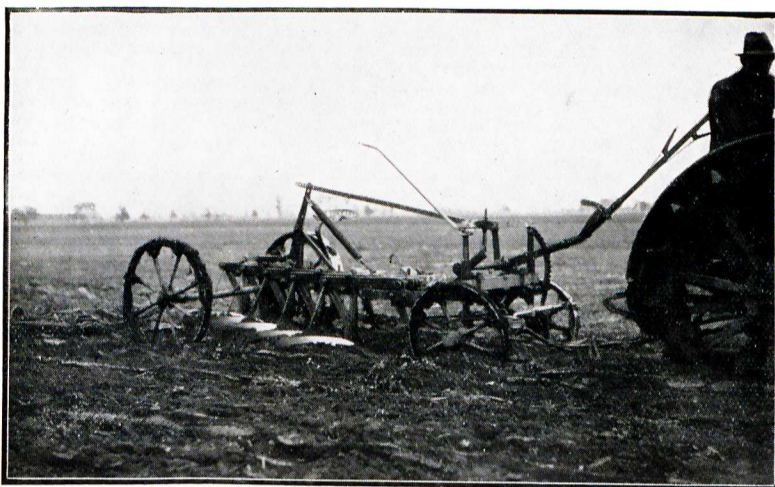
H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



The Long Board Plough Fitted with Levers for Tractor Work

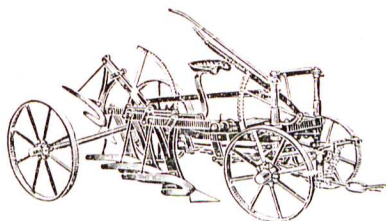
The whole construction of this Plough makes it easy of management, and its shares and boards ensure first-class work in all kinds of soil. Width of furrow, $8\frac{1}{2}$ inches. The short-board Plough takes P or LP shares, and is made in 3, 4, 5, and 6-furrow sizes. The long-board Plough takes B or LB shares, and is made in 3, 4, 5, and 6 furrows.

The implement can be supplied with levers set forward for tractor work as illustrated above.



A Sunrise Working in Sticky Soil

The small illustration shows this famous Plough fitted with skeleton boards. The use of these makes lighter work for the team or tractor, and in sticky soil they are invaluable, as they scour and keep clean better than any other type of board.



H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

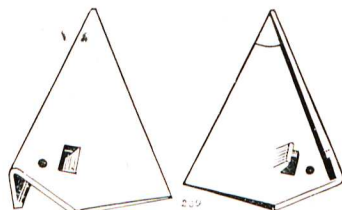
Sunshine Wrought-Steel Plough Shares

Lip Socket Style

These Shares are made from the finest steel procurable for the purpose. The cutting edge is hardened by a special process, and will give long wear, even on gritty soils. The underpoint is dressed with special hard chilled metal, giving much extra resistance at the point—where wear is greatest. Being made with automatic machinery, every Share is an exact duplicate and a good fit. They can be easily relaid by a blacksmith when worn.

The lip, cut in the solid metal, forms the socket which has sufficient "give" to enable it to fit the Plough foot, even when the latter varies to a moderate extent from the makers' original template.

The lip socket style is made on the best-known Australian pattern, and is well and favourably regarded throughout the Commonwealth for durability and strength. Their hardness is not equalled by any other make. They are made with diamond points only.



Lip Socket Style

LIP SOCKET SHARES

Mark on Share	Width of Wing	To Fit Plough Foot	May be used in place of
P	7 inch	Howard PN	Shearer's P, Howard's PN1, and on Shearer's Ploughs with convex boards. Used on Sunrise S.J.M.B. Ploughs with short boards.
LP	8 ..	Howard PN	Shearer's LP, Meadowbank MX, Hudson's Paragon and Paragon New. Howard's P and PN; used on Sunrise S.J.M.B. Ploughs with short boards.
B	7 ..	Hornsby D	Hornsby D (small sizes), Shearer's 0-1; used on numerous makes of ploughs with D foot. Used on Sunlock and Sunstar Ploughs, also on Sunrise S.J.M.B. Ploughs with long boards.
LB	8 ..	Hornsby D	Hornsby D (large sizes), Shearer's O, Meadowbank MB, Hudson's V Fish GFD, Reid & Gray's O, used on numerous makes of ploughs with D foot, including Sunlock, Sunstar, and Sunrise S.J.M.B., with long boards.
O	7 ..	Hornsby C	Hornsby C (small sizes), Shearer's 10-1, and on various makes of ploughs with C foot.
LO	8 ..	Hornsby C	Hornsby C (large sizes) Shearer's 10, and on various makes of ploughs with C foot.
SV	7 ..	Meadowbank	Shearer's V, Meadowbank MV (Victory Plough), Sunwrest Ploughs.

Sunshine Chilled Cast Plough Shares

Unrivalled for Fit and Finish

The Quality and Chilling of the Metal is Unexcelled

Mark on Share	Same Fitting as	Width of Wing	Used on Sunshine Ploughs
B 0	Hornsby D 0	6½ inch	Sunlock
B 1	" D 1	6½ ..	Sunstar Single
B 8	" D 8	7 ..	Sunstar Double
B 20	" D 20	6½ ..	Sunrise, with Long Boards
B 21	" D 21	6½ ..	—
O 0	" C 0	7 ..	—
O 1	" C 1	6½ ..	—
O 21	" C 21	6½ ..	—
P	Howard PN	6½ ..	Sunrise, with Short Boards
SV	Meadowbank MV	7 ..	(Sunwrest Single
BFI 3	Ransome's BFI 3	6½ ..	(Sunwrest Double
YOH 2	" YOH 2	6½ ..	—
YOH 5	" YOH 5	6½ ..	—
YFL 2	" YFL 2	7½ ..	—
HL 2	Lennon's HL 2	6½ ..	—
KID	American KID	6½ ..	—



H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Wrought-Steel Plough Shares

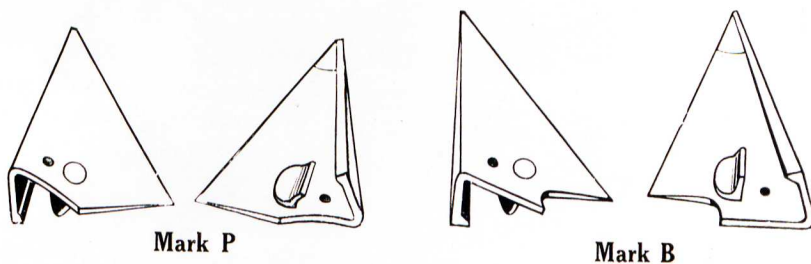
Pivot Clip Style

These Shares are made from the finest steel procurable for the purpose. The cutting edge is hardened by a special process, and will give long wear even in gritty soils. The underpoint is dressed with special hard chilled metal, giving much extra resistance at the point—where wear is greatest. Being made with automatic machinery, every Share is an exact duplicate and a good fit. They can be relaid by a blacksmith when worn.

Special attention is called to the simplicity and durability of the pivot clip construction. Observe that the top of the wing is flush, and offers no obstruction to the passage of the soil—a feature **not to be found in other wrought Shares**. The solid forged landside heel is more symmetrical, and gives greater strength and rigidity than in other makes in which the heel is made by merely bending the plate. The clip and rivet are one solid forged piece, and the pivoting permits the socket to adjust itself to differing tapers in the Plough feet—a feature of great value to the farmer.

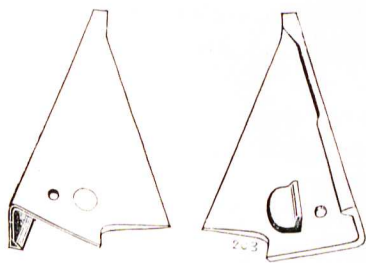
The pivot clip Shares are made in two styles, viz., with chisel points, and also with diamond points. The chisel points are preferred on Set Ploughs, as they give better entry into hard soils and increase the length of wear of the Share. The diamond-pointed Shares are recommended for Stump-Jump Ploughs, as they clear obstacles better than chisel points in this class of work.

Sunshine Pivot Clip Wrought-Steel Plough Shares WITH DIAMOND POINTS, FOR STUMP-JUMP PLOUGHS



Mark on Share	Width of Wing	To Fit Plough Foot	Same Fitting as
P	7 inch	Howard PN	Shearer's P
B	7 inch	Hornsby D	Shearer's OI

WITH CHISEL POINTS FOR SET PLOUGHS



Mark on Share	Width of Wing	To Fit Plough Foot	Same Fitting as
B	7 inch	Hornsby D	Shearer's 0-1
O	7 ..	Hornsby C	Shearer's 10-1
S.V.	7 ..	Meadowbank	Shearer's V
			Meadowbank MV }

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Wrought-Steel Plough Shares

PLATE SHARES FOR STUMP-JUMP AND PARING PLOUGHS



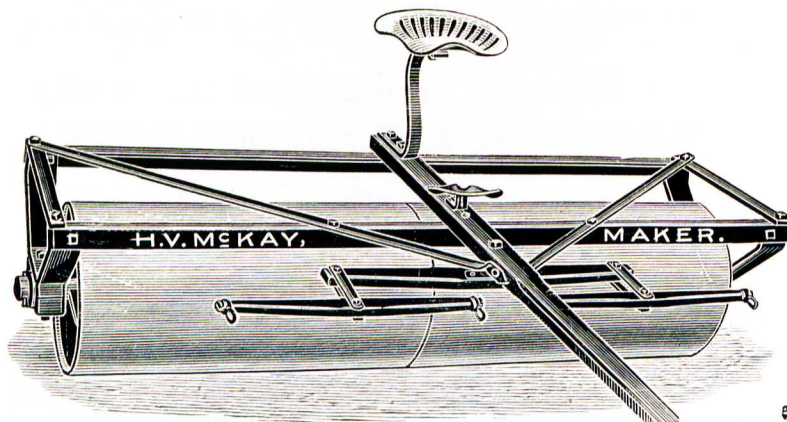
Mark SS2—same fitting as Shearer's S2



Mark SS1—same fitting as Shearer's S1

NOTE: These Shares fit the Sunprince Plough when same is ordered to take plate shares

The Sunshine Field Roller



Every farmer realises the value of a Roller for working down a cloddy fallow or rolling a growing crop to encourage tillering and growth.

This Roller has been carefully designed with the strength to give long service. For example, the rollers themselves are made of $\frac{3}{16}$ in. mild steel plate, as against much thinner plate sometimes used. The Roller is 8ft. wide, and is made in two sections running on a steel axle, $2\frac{1}{4}$ in. diameter. The sections, or cylinders, run freely on the axle, which in turn runs in oil-saturated red-gum bearings. This ensures ease of running, and enables the implement to be turned in its own length. The total weight of the 2 Section Roller is 1,166 lbs., and the diameter is 23 inches. Seat and footrest are provided.

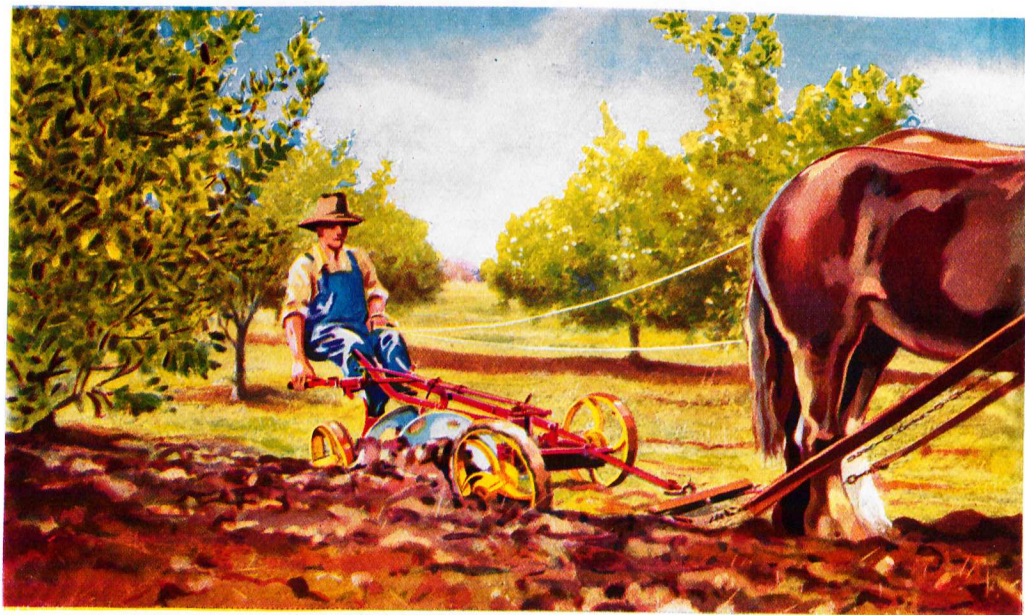
The framework is strongly made and rigidly braced. The main members are $2\frac{1}{4}$ in. x $2\frac{1}{2}$ in. angle steel beams, the bearing brackets being made of 4 in. x $\frac{3}{4}$ in. high quality steel. A well-seasoned hardwood pole and two-horse swings are supplied. With attention to lubrication, wear is practically nil, and the farmer may rest assured that he is getting an implement that will give him many years of satisfactory service.

This Roller is also manufactured in three section size, covering 12ft. In this size it is equipped with pole, neck-yoke and swings for three horses.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunleaf Disc Plough

The Disc Plough for the Orchardist



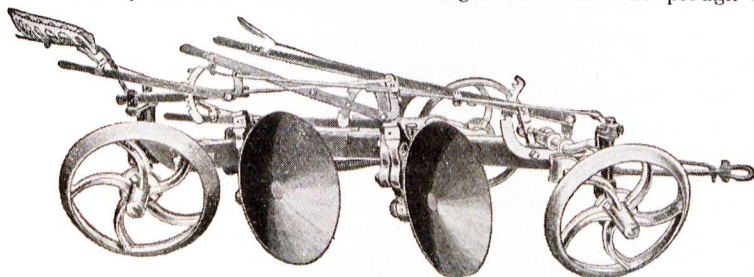
In many districts, where the soil is hard, the orchardist must be provided with a Disc Plough, and the Sunleaf fills this demand most satisfactorily. It is of comparatively light weight for a Disc Plough, scaling only $6\frac{1}{2}$ cwt., but it is amply strong for its work. The frame is of spring steel, strongly reinforced, and making a rigid foundation for the implement. The three wheels are of cast iron, and have renewable bearings which are oil-retaining and dust-excluding. The disc brackets are provided with the patent ball and socket device, giving provision for setting the discs with any desirable breast cut or undercut. The discs themselves are 23 inch diameter, with $3\frac{1}{2}$ inch "dish," and are of the hard, tough steel necessary to give good penetration and long wear. The brackets may be shifted to provide for either 7 inch or 9 inch furrows, and the lead or clearance is sufficient in all conditions. A lifting lever is provided each at the land wheel and the front furrow wheel, so that the working set and the depth regulation may be perfectly controlled. The implement is team steered, and in addition, both the front furrow wheel and the rear wheel may be turned by hand levers from the driving seat. Thus the plough may be hand steered close up to

trees or vines, and by operation of the rear wheel lever a perfect turn at the headlands is assured. When ploughing "away," the land wheel may be **set in** so as to plough within 12 inches of the trunks.

A wide draught rack is provided, also an adjustable bridle for offsetting the team either

way. When at work, the levers are "down" to give clear passage under low branches.

This is a fine Plough for **turning in** green manurial crops in orchard practice. The front disc may be removed **when it is desired** to work it as a **Single-Furrow Plough**.

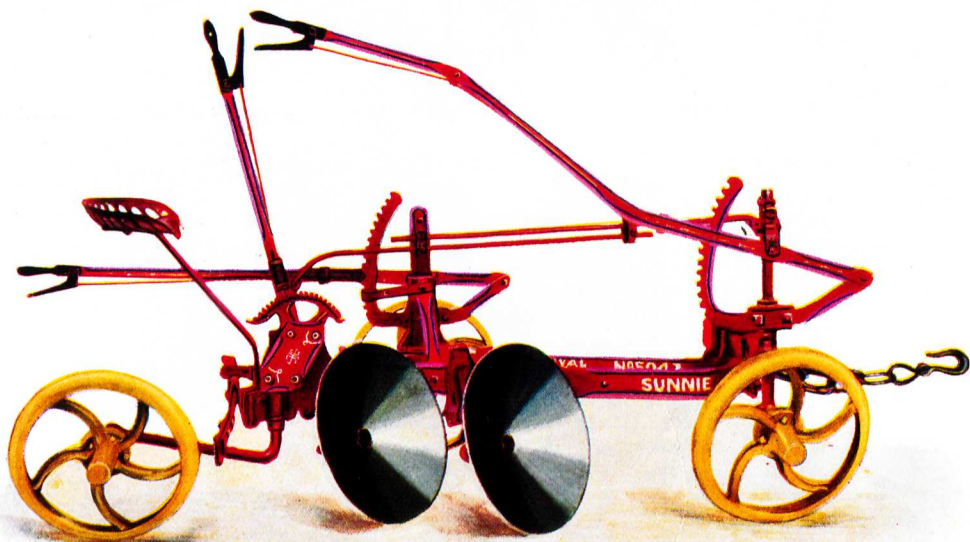


H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunnie Disc Plough

(PATENTED)

Recommended for Deep or Shallow Discing in Light to Medium Soils



This Plough is built with that solidity and strength which characterise Australian-made implements, and yet it is sold as cheaply as the lightly constructed Disc Ploughs of foreign manufacture. It is largely used in maize-growing districts, and in all parts where loamy lands require deep tilling and thorough pulverisation. It has great clearance between the discs, and consequently will work well in rank weed growths and bury them satisfactorily. It is light in draught, convenient to handle, and invariably gives satisfaction to those who use it.

It is made in 1, 2, and 3-furrow sizes. The discs are 23 inches in diameter, and the width of furrow is adjustable for either 7 or 9 inches. By a patented device the set of the discs may be simply and quickly altered for more or less breast, or more or less undercut, as desired. This is effected by the use of a semi-ball and socket connection on the disc carriers, and by manipulating the clamp bolts the desired set is obtained without loss of time.

The frame is of best spring steel, braced in such a manner as to give rigidity and strength. The three cast iron wheels have rims of ample tread, and are set at the angle which gives most grip. Each wheel has a removable box, which has a large chilled wearing surface, and is dustproof and oil-retaining. The axles of the furrow wheels may be quickly removed and replaced when worn. The front wheel is adjustable to regulate the width of furrow, and is solidly supported in all positions. The rear wheel is free swivel when the stop is lifted (by foot pressure), and enables the Plough to turn to near or off in its own length. This stop is adjustable to give the rear wheel more or less inclination to land as desired. The levers are admirably placed for convenience in steering and for raising the discs clear of the ground in travelling, and for adjusting the depth of the work. The discs are made of the best steel, and are tough and strong to give good wear and prevent breakages. The disc bearings have large chilled surfaces; they are oil-retaining and have dustproof caps. Disc scrapers can be supplied at a small extra charge, also a hillside attachment for the rear axle, to facilitate working on sidelings.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



A 3-Furrow Sunnie Disc Plough at Work

Discs For Sunshine Ploughs and Cultivators

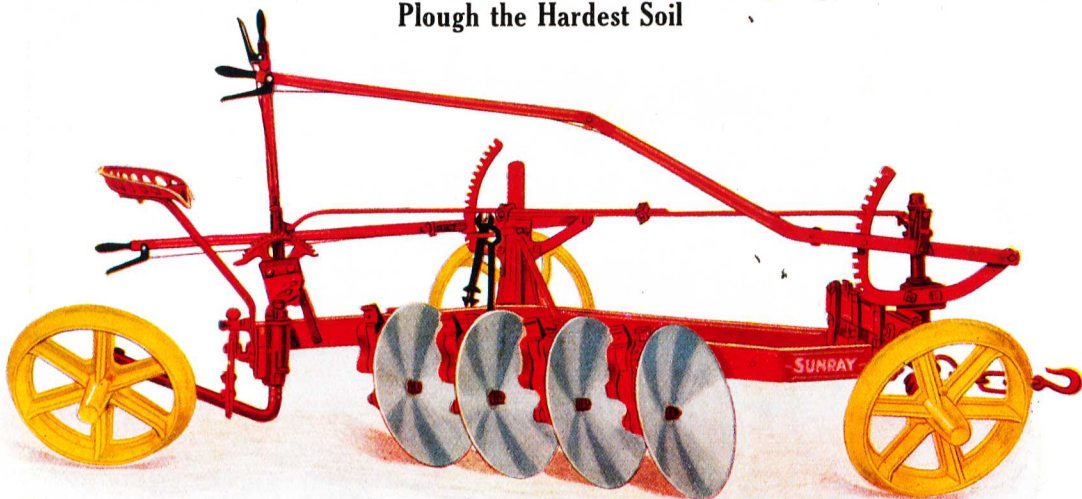
Code	Size	Description
Covo	Plough Disc—28 inch ..	1-1/16in. square centre hole, 5/8in. pin hole, 4 1/2in. from centre, 4 1/4in. dish.
Coya	.. .. 26 inch ..	1-1/16in. square centre hole, 1/2in. countersunk bolt hole, 4 1/2in. from centre, 4 1/2in. dish.
Coze	.. .. 23 inch ..	1-1/16in. round centre hole, 3 1/2in. dish.
	.. .. 23 inch ..	1-1/16in. round centre hole, 1/2in. countersunk bolt hole, 4 1/2in. from centre, 3 1/2in. dish.
Cuax	.. .. 23 inch ..	1-1/16in. square centre hole, 1/2in. countersunk bolt hole, 4 1/2in. from centre, 3 1/2in. dish.
Cuza	Cultivator Disc—20 inch .	15/16in. square centre hole, 2 3/4in. dish.
	.. .. 20 inch .	1-1/16in. square centre hole, 2 3/4in. dish.
Cuer	.. .. 20 inch .	1-5/16in. square centre hole, 2 3/4in. dish.
	.. .. 18 inch .	1-1/16in. square centre hole, 2 3/4in. dish.
Cuon	.. .. 18 inch .	1-5/16in. square centre hole, 2 1/4in. dish.
Cuwo	Harrow Disc—16 inch ..	15/16in. square centre hole, 2in. dish.

Supplies of **best quality** Discs, to fit all Sunshine Disc Implements, can always be obtained promptly through all Sunshine Agents

The Sunray Disc Plough

(PATENTED)

With this Plough there is no need to Wait for Rain before Ploughing; it is Guaranteed to Plough the Hardest Soil



Farming conditions in Australia have made it necessary that a Plough be available which will penetrate and turn over the soil when it is baked stone dry and almost brick hard. The Sunray will do this work, and hence is largely used for fallowing. It will work successfully where the Mould-board Plough is useless. In ti-tree, grass tree, or in tussocks, it does surprisingly well, and in all cases it thoroughly pulverises the soil to any reasonable depth, and buries grass or weeds.

The sizes made are 2, 3, 4, 5, and 6 furrows; the discs are 23 inch diameter; and the width of furrow is adjustable to $6\frac{1}{2}$ or 8 inches. In all sizes the front disc may be removed, and the number of furrows reduced by one. Hand steering gear is provided, but for bullocks or tractor work automatic steering gear is also fitted on the larger sizes.

A special patented feature of this Plough is the adjustability of the discs for more or less undercut and more or less angle to land. This is accomplished by the aid of a semi-ball and socket device on the disc carrier. Any adjustment is quickly and rigidly made by merely slackening or tightening the clamp bolts.

The strength of this Plough is enormous, and is obtained by using spring steel of heavy section for the frames, which are cross-braced to meet great strains. It is mounted on three cast-iron wheels of ample weight, provided with renewable boxes, which are dustproof and retain the oil. These boxes have large chilled surfaces, ensuring long service and free running.

The levers (three in number) for steering, and for raising and lowering, are all placed handy to the driver's seat, and have the most ample leverage for their work. 5 and 6 furrow sizes are equipped with both hand and team steering gear. Team steering gear can be fitted to smaller sizes at extra cost. The rear wheel is free swivel as soon as the driver's foot is applied to the stop lever, and the Plough may then be turned to the near or the off in its own length. The rear wheel stop is adjustable to allow more or less angle on this wheel as desired. The front furrow wheel may be set in or out to suit either width of furrow, and its carrying arm is strongly supported. The disc arms are of great strength, and are warranted to be equal to all reasonable strain, and to them are clamped the disc carriers. Scrapers for the discs are rarely required, but can be supplied at a small extra charge when specially ordered.

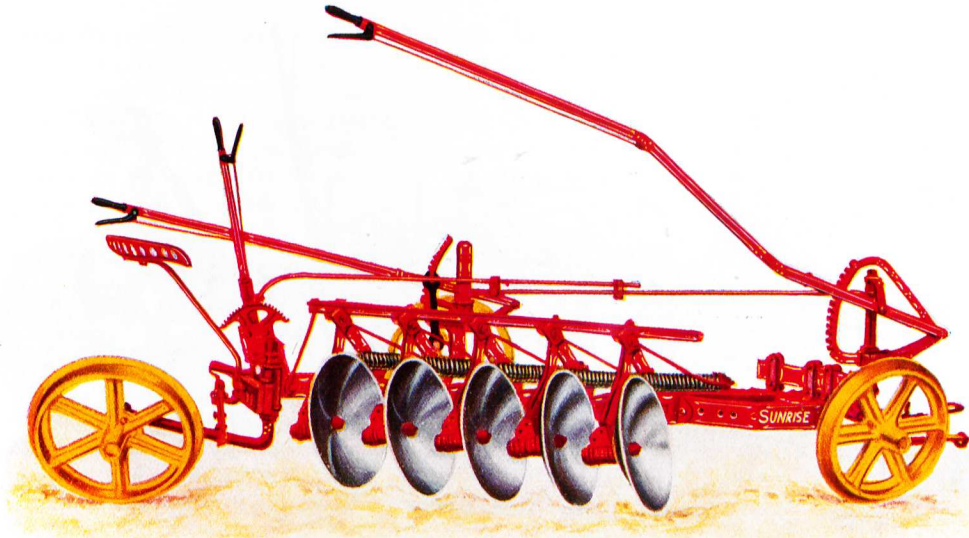
The sizes from 3-furrow upwards can be fitted with reversed lever for tractor work, at small extra cost.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunrise Stump-Jump Disc Plough

(PATENTED)

THE PLOUGH OF THE PIONEER—Enables him to plough his paddocks before they are completely cleared of stumps, stones, roots, etc.



This implement is absolutely necessary for the cultivation of stumpy or stony ground. Thousands of acres of land are being cleared of stumps and being brought into thorough cultivation by using this implement. It is made of first-class materials, and is so constructed that it will break up virgin soil of the hardest nature, and will do splendid work in loose mellow soil. It is a splendid tractor Plough.

The discs are set with just that amount of breast and undercut which long experience has proved to be the best. Automatic steering gear is sent with each Plough. It is easily handled, and may be turned to right or left in its own length. The jumping device is almost perfect. The resistance of the heavy spiral spring is adjustable by nut and thread to suit the condition of the land. The spring pressure is conveyed to the discs by means of a toggle joint in such a way that it receives the greatest pressure when in the working position.

The frame is made of the best spring steel, rigidly cross-braced. The three cast-iron wheels are fitted with renewable oil-retaining, dustproof boxes, which have chilled wearing surfaces, ensuring long life. The axles of the furrow wheels are removable, which greatly reduces the cost of replacement when worn. The front wheel is adjustable in position to regulate the width of cut of the front furrow. Powerful, convenient levers provide for depth regulation, steering, and for lifting the discs clear for travelling. An adjustable stop on the rear furrow wheel axle regulates this wheel for more or less inclination to land. The disc bearings have large chilled wearing surfaces, and are provided with caps which retain the oil and exclude dust and grit. Mouldboard scrapers, which clean the discs, and also assist to turn the soil and bury weeds, can be supplied when specially ordered.

The sizes are 1, 2, 3, 4, 5, and 6 furrows, and the width of furrow may be set to either $6\frac{1}{2}$ or 8 inches. A 7-furrow Plough can also be supplied, cutting $6\frac{1}{2}$ in. only. The discs are 23 in. diameter.

The implement is strong and well built, and will give splendid service with ordinary care and attention to oiling, etc. The sizes from 3 furrows upwards can be fitted with reversed lever for tractor work at small extra cost.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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The Sunbow Stump-Jump Disc Plough

(PATENTED)

The Big Clearance High Jump Disc Plough



4 Furrow size with Tractor Levers—nearside view

The **Sunbow** Plough meets the demand for a Disc Plough with great lead or clearance between the Discs, and with provision that permits any disc to rise high when necessary to ride over a big stump or stone. It has $14\frac{1}{2}$ inches lead, and the discs will rise 10 inches when called upon to do so. This puts the Sunbow in a class of its own among disc implements.

Such a specification can be carried out only by putting great strength into the construction of the frame and other parts, and strength is the outstanding feature of the Sunbow.

The Frame of hard spring steel, is heavily and rigidly trussed and braced, and the rear portion, which takes the greatest strain, is reinforced by a stout hardwood beam bolted between the steel members. This construction provides a frame which is an absolutely safe foundation for a plough designed to last a generation.

The great length of the plough made 3 wheel construction unsatisfactory, and consequently 4 wheels are provided. Thus there are two land wheels and two furrow wheels, and every ploughman will realise what a gain this is, not only as regards strength and rigidity, but in the giving of perfect control when the plough is at work.

The Wheels, of heavy pattern, are fitted with chilled, oil retaining, dust excluding boxes, which are cheaply renewable when worn. Each wheel is provided with a capacious screw grease cup giving effective lubrication. The front wheels are mounted on tapered steel axles, also cheaply renewable. These two front wheels are coupled, and steer in unison with the movements of the team steering gear.

The two rear wheels (one in the furrow and one on the land) are both mounted on one straight axle, which takes the weight of the rear portion of the plough. This is provided with

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

shock springs, which take the jar when the wheels are jolted to land or to furrow by obstacles met with in the work. This double rear wheel construction makes it practically impossible for the tail of the plough to swing away from its work under any conditions. The rear axle is mounted on a swivel and a hand lever is provided so that the running angle of both rear wheels may be varied. This enables the driver to instantly alter the line of draught and the width of cut, so that he may narrow down in a hard patch or widen out in easy soil. Also it provides a semi-governor steerage and may be used for straightening out a kink in the furrows. This is a feature greatly esteemed by users.

Strong Heavy Jump Arms are provided, and these are hinged on steel brackets bolted to the frame. The pressure on each disc is provided by two vertical coil springs attached to the outer end of the "bow." By screw pressure, these springs may be given more or less tension. The inner end of the "bow" is attached to a prolongation of the inner end of the jump arm by a cross spindle on which a chilled roller is mounted. The movement of the curved portion of the bow around this roller varies the leverage. As the disc rises, the leverage of the bow reduces and becomes almost nil at the top position. After clearing an obstacle, the disc snaps back to its work. This device gives a 10 inch jump to each disc, and the easing off of the pressure as the disc rises is ideal for reducing wear and tear, and for diminishing jar on the team when surmounting stump or stone.

The Discs are 23in. diameter, made of crucible steel of a toughness and hardness to suit the rough usage to which they are subjected on stump jump ploughs. Provision is made to vary the breast cut on the discs by slotted bolt holes and set screws.

The Raising and Lowering is effected by two Powerful Levers operating respectively at the front furrow wheel and the front land wheel. These make it easy to regulate the working set of the plough, to regulate the depth of the work and to raise the discs clear of the ground for transport. Levers may be fitted for tractor work (see illustration on previous page) or for team work (see photograph below). The former at small extra cost.

The **Sunbow** is made in 4, 5, and 6 furrow sizes and has our recommendation as the best stump jump disc plough for all big area work. (Either of the larger sizes may be reduced one furrow by removing the front disc and sliding the front wheel inwards.

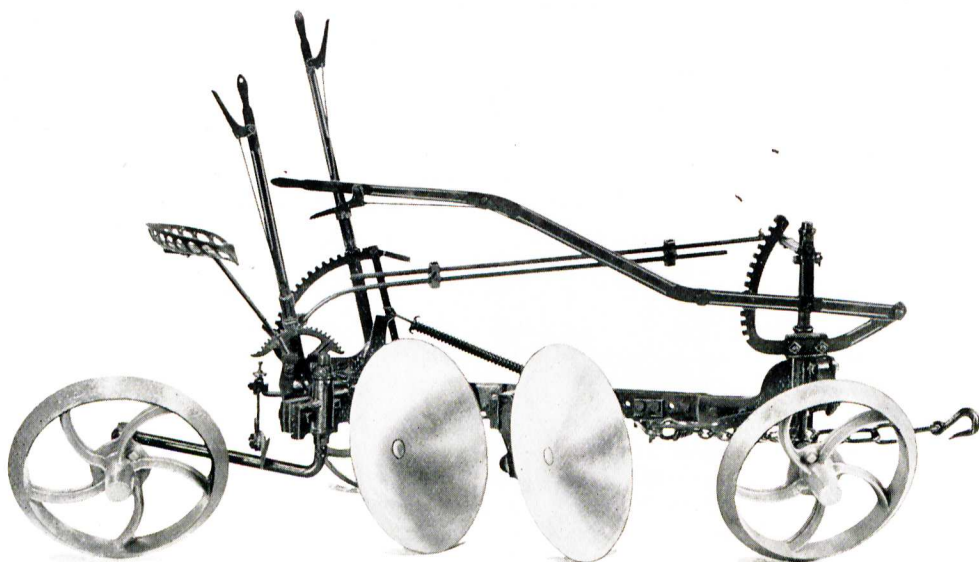


Sunbow, equipped with Team Levers, at work

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sunshine No. 40 Disc Plough

Highly esteemed in Queensland and elsewhere for deep ploughing in sugar cane and other plantations



These Ploughs are made in 1, 2, and 3 furrow sizes, and as the discs are 28 inch diameter, with a $4\frac{1}{4}$ inch dish, they will, in mellow soil, plough to a depth of 14 inches. They thus suit admirably for work in sugar cane, cotton, maize, etc. The one and two furrow sizes may be adjusted to cut furrows 8, 9, 10, 11, or 12 inches wide. The three furrow size will cut furrows 8, 9, or 10 inches wide. The one furrow Plough may, by using additional parts, be built up to a two or three furrow size; and, vice-versa, the three furrow may be reduced to a two or one furrow size. The capacity of this Plough to cut and bury heavy weed growths is appreciated by all users.

Heavy sections of spring steel are used for the frame of this Plough, giving it great rigidity and strength. The disc brackets are of very stout design, and ample provision is made for lubrication and dust exclusion for the disc bearings. The set of the discs for undercut and breast cut is such as is most effective in plantation work.

The furrow wheels are raked to give good grip, and all three wheels are provided with chilled axle boxes—oil-retaining and dust-excluding. The adjustable stop on the rear wheel axle provides for regulation to suit soil conditions, and when this stop is released at the headlands the Plough will turn to right or left practically in its own length.

Powerful levers control the steering, lowering, and raising of the discs, and all can be operated from the seat of the Plough. The land lever is aided by a powerful and effective coil spring.

For use behind a tractor, these Ploughs can be fitted with a forward lifting lever; also with a special draw-bar and steering attachment.

For tractor work an efficient automatic cog lift can be fitted. This is located on the front furrow wheel and has few wearing parts. To lower the discs into the ground, the operator on the tractor gives a slight pull to a cord, which releases the trip mechanism and sets the gearing in motion; the discs descending into the ground to the set depth of cultivation. The action of the gearing is planetary and by setting it into motion again the discs are brought up out of the ground. The implement can be set to any working depth, without impairing the efficiency of the lift.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Harrowing

Every farmer realises the value of harrowing, and includes a complete set in his farming equipment.

Harrowing the Stubble.—Some farmers make a practice of running the harrows over the land immediately after the stubble burn. This stirs the soil, holds the ashes from blowing away, encourages a germination of weed seeds, and breaks the surface of the ground, enabling easy penetration of summer showers.

Harrowing after the Plough.—In some districts, farmers harrow immediately after ploughing. This pulls the comb off the furrows, making future working down of the soil easier. It also breaks up the sod, and provides a makeshift mulch to prevent the rapid escape of moisture from the soil.

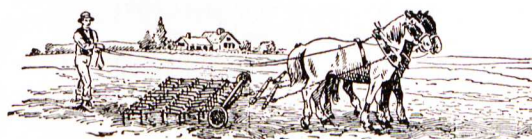
Harrowing the Fallow.—The newly-ploughed ground may be worked down with the Springtooth or Disc, and a final stroke of the Harrows will level the surface off. If sheep are kept on the fallow, a stroke of the Harrows will renew the dust mulch. After every heavy shower of rain, the dust mulch will tend to run together, and unless the mulch is broken up, this valuable moisture will be lost. Harrows will do the job quickly and effectively.

Harrows after the Drill or Combine.—A light set of Harrows, such as the Suntrail or Suntow, will leave the seed-bed smooth and even, will ensure that the seed is evenly covered, and will leave a workmanlike job.

Harrowing the Growing Crop.—If the crop comes away strongly and tends to grow rankly, a stroke of the Harrows will check the growth and encourage stooling.

Harrowing the Pastures.—The use of Tripod Harrows on the pastures, gives fresh life to the succulent grasses, and increases the carrying capacity of the paddocks. Their use is strongly recommended prior to the application of top dressing.

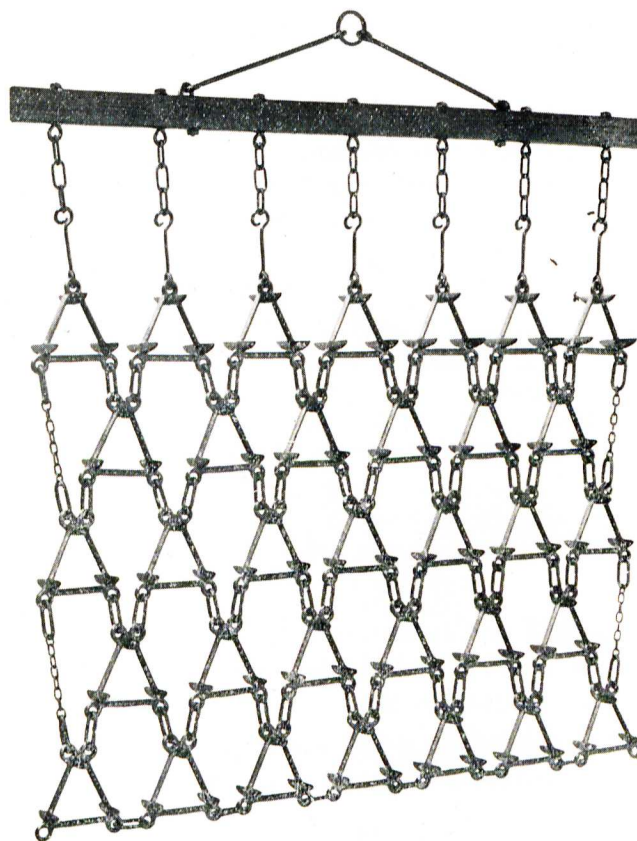
Sunshine Harrows give the farmer the implement which is light in draught, covers much width per stroke, and gives the land just that tickle which conserves the moisture and increases the yield per acre. Harrows used often and judiciously become the most valuable implement which the farmer possesses. The Stump-Jump type should be used wherever the soil is not completely cleared of stumps, roots, stones, etc.



H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Sun-tripod Pasture Dressing Harrows

One Horse
Set,
6ft.
wide
by
4ft. deep



Two Horse
Set,
8 feet
wide
by
5ft. deep

Lines of Cultivation, $1\frac{1}{2}$ in. apart

FOR HARROWING PASTURE LANDS

Their use is strongly recommended prior to the application of fertilizer.

The solid metal tripod is of triangular shape, incorporating three teeth, one at each corner. The teeth project above and below the tripod to a length of $2\frac{1}{2}$ in., enabling the harrows to be turned over and used on the reverse side when the teeth on one side become worn.

The tripods are coupled together by heavy mild steel links. These links effectively withstand any tendency to widen out.

The teeth of the front row of tripods are of greater length than those following, viz., $3\frac{1}{8}$ inches, the effect being to give a greater grip, and to hold the harrows well down to their work.

A bar of selected, well-seasoned hardwood, complete with steel pull rods, is attached by links to the harrows.



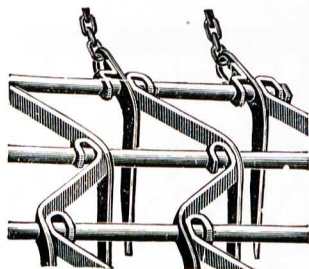
The Tripod

Ask for Special Leaflet on Pasture Dressing

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Stump-Jump Harrows

Stump-Jump Harrows have been manufactured at Sunshine (formerly Braybrook) continuously since the year 1889



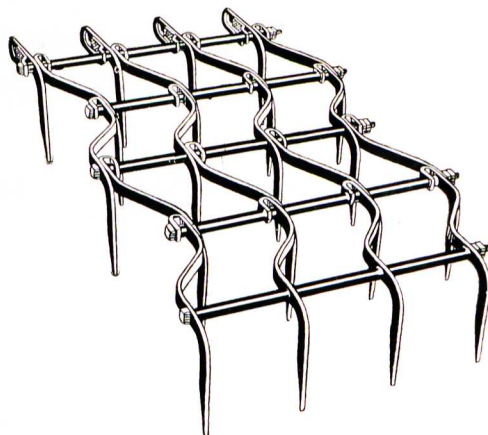
Showing the "Double Bearing Teeth"

between the teeth are of stout steel tube, and these are threaded on to cross bolts which are double-nutted. Thus every joint is a flexible joint, and any row of teeth can rise to ride over stump or stone.

As the following illustrations indicate, Sunshine Stump-Jump Harrows are made in two types, called respectively Sunbury and Sunjump.



Sunbury Harrows, 16 teeth per section
Lines of Cut, $2\frac{1}{4}$ inches apart



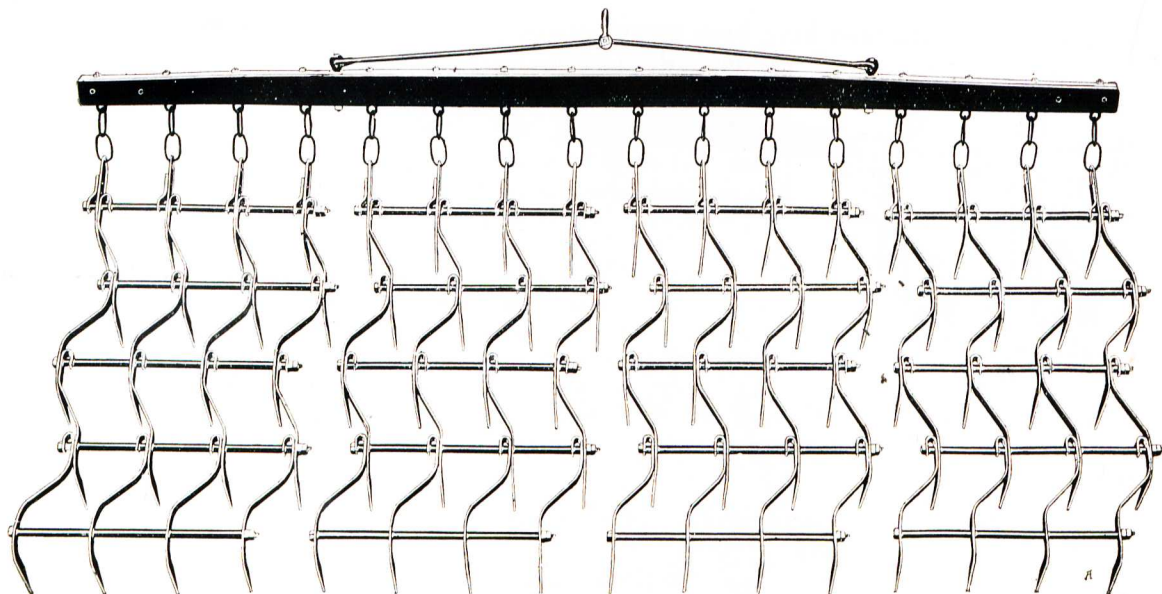
Sunjump Harrows, 20 teeth per section
Lines of Cut, $1\frac{3}{4}$ inches apart

The SUNBURY has 4 rows of 4 teeth, giving 16 teeth per section, and the spacing between the lines of cultivation is $2\frac{1}{4}$ inches. The SUNJUMP gives closer cultivation, as its lines of cut are only $1\frac{3}{4}$ inches apart. It has 5 rows of 4 teeth, or a total of 20 teeth per section.

These Harrows are used on small and large areas, and consequently a great variety of different-sized sets are provided, viz.: from 2-section up to 10-section. Small-sized sets are usually worked without any wheels on the draught bar. Medium-sized sets can be equipped with 2 wheels—viz.: one on each end of the bar; while larger sets are usually supplied with 3 wheels—a 2-piece bar being used, with an arch in the centre to accommodate the centre wheel. In these cases the centre joint is hinged, giving a desirable flexibility to the set.

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Sunshine Stump-Jump Harrows — (Continued).



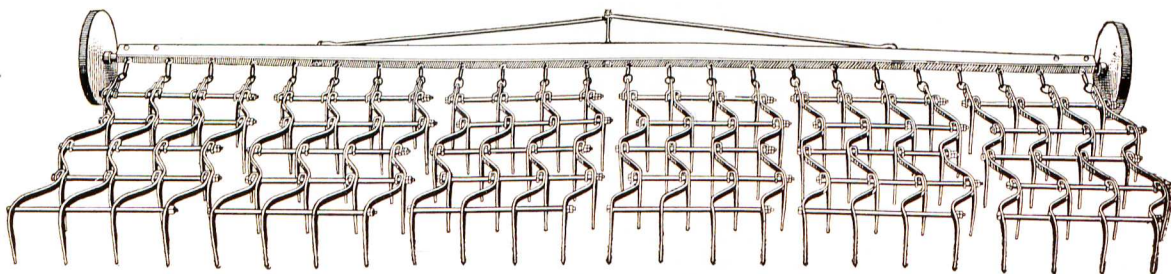
A 4-Section Set Sunjump Type, without Wheels

The sizes supplied with one-piece bar, without any wheels, are as follow:—

					If Sunbury Type has		If Sunjump Type has
2-section set covers	5ft. 2in.	..	..	..	32 teeth	..	40 teeth
3-section set covers	7ft. 10in.	..	..	..	48 teeth	..	60 teeth
4-section set covers	10ft. 6in.	..	..	..	64 teeth	..	80 teeth
5-section set covers	13ft. 2in.	..	..	..	80 teeth	..	100 teeth
6-section set covers	15ft. 10in.	..	..	..	96 teeth	..	120 teeth

NOTE.—Stump-Jump Harrows are nitted up tightly for convenience in transport. Users should loosen nuts, then re-tighten enough to permit the rows of teeth to jump.

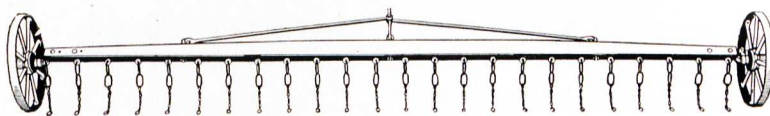
The same sizes as above are also supplied with one-piece bars, with two wheels. The wheels may be either 20 inch or 28 inch diameter. In the illustration hereunder the 20 inch wheels are shown:—



Six-Section Set Sunjump Type, with One-piece Bar and 2 wheels, 20 inches diameter

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Stump-Jump Harrows—(Continued).

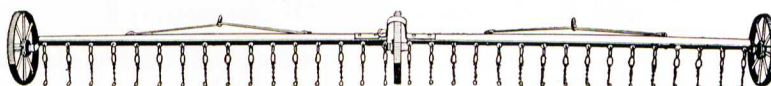


A One-Piece Bar for a 6-Section Set, with 2 wheels, 28 inch diameter

The 8 and 10-section sets (and frequently the 6-section set also) are equipped with a two-piece jointed bar and 3 wheels, as shown hereunder:—



Two-Piece Jointed Bar, with 3 Wheels 20 inch diameter, for 6, 8 or 10-Section Sets



Two-Piece Jointed Bar, with 3 Wheels 28 inch diameter for 6, 8 or 10-Section Sets



Tractor Bar with Central Pull in sizes for 6, 8, and 10-Section Sets

Dimensions of Large Sets:				If Sunbury Type		If Sunjump Type	
				has		has	
6-section set covers 15ft. 10in.	..	..	..	96 teeth	..	120 teeth	
8-section set covers 21ft. 2in.	..	..	..	128 teeth	..	160 teeth	
10-section set covers 26ft. 6in.	..	..	..	160 teeth	..	200 teeth	

For undulating country a third bar is introduced into the rig, with a view to preventing sagging of either half of the 6, 8, or 10-section set. This front bar is mounted on skids as illustrated hereunder:—

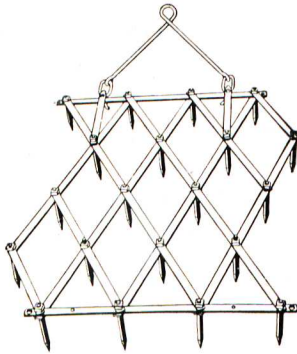


Two-Piece Jointed Bar, with 3 wheels and with Front Equalising Bar on Skids

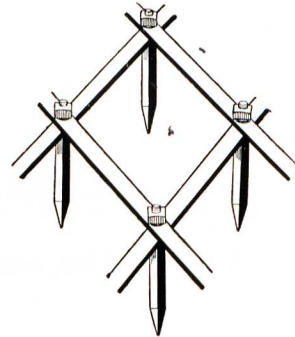
H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Diamond Harrows

These Harrows are used in large numbers throughout Australia, and are also exported overseas. They are desirable for use in all countrysides wherein the paddocks are well cleared of stumps, roots, stones, etc.

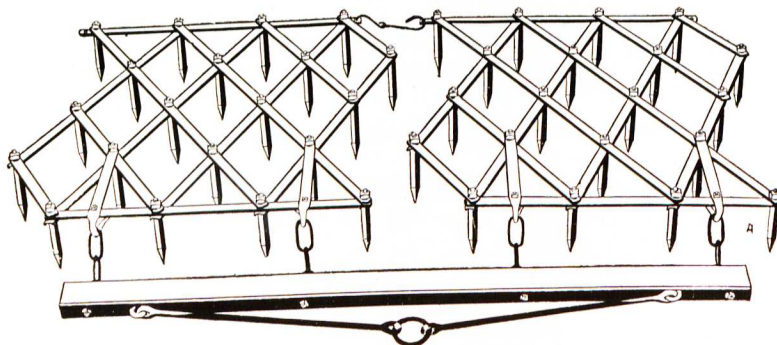


For the Orchardist. One Section complete with Steel Pull Rod and Links



Note the Sturdy Teeth of $\frac{5}{8}$ in. Square Steel

The frame bars are made of channelled steel, a section which gives very great strength without undue weight. The teeth are made of $\frac{5}{8}$ in. square steel, shouldered into the channel, and forged at the points. Note that the two draught hooks on each section are forged on reinforcing straps, which further strengthen the section. Each section has 20 teeth, and covers a width of 3ft. 2in. Loops are supplied to couple the sections together at the rear to prevent spreading. Lines of cultivation, $1\frac{3}{4}$ in. apart.



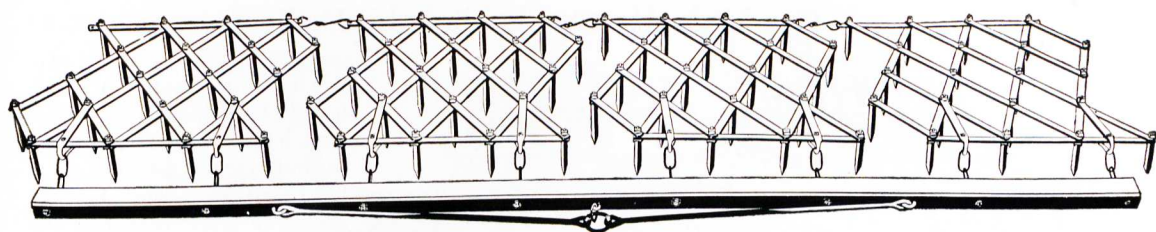
A 2-Section Set with Draught Bar

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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Sunshine Diamond Harrows



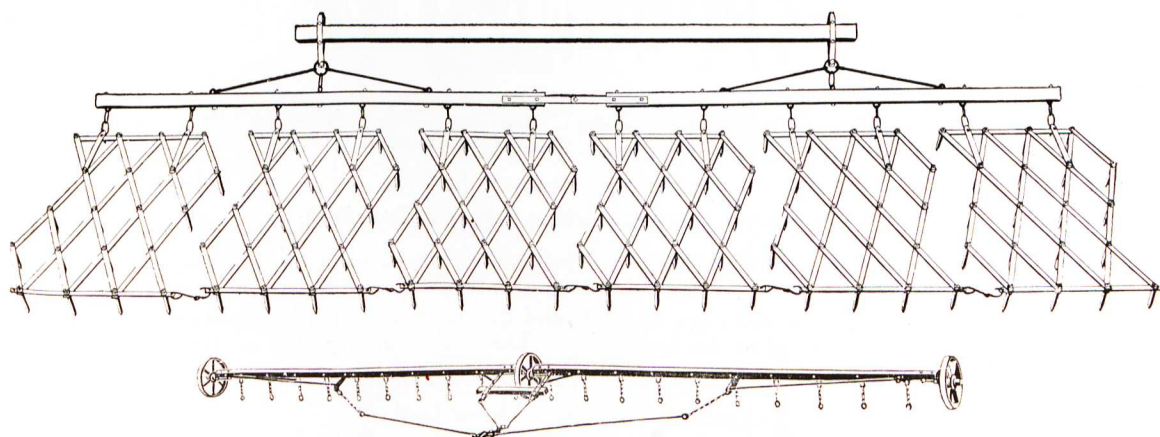
4-Section Set, complete with Draught Bar

SUNSHINE DIAMOND HARROWS are supplied with one-piece draught bars as per illustration above, in the following sizes:—

- 2-section set, 40 teeth, covering 6ft. 8in.
- 3-section set, 60 teeth, covering 10ft. 0in.
- 4-section set, 80 teeth, covering 13ft. 4in.
- 5-section set, 100 teeth, covering 16ft. 8in.
- 6-section set, 120 teeth, covering 20ft. 0in.

The larger sets are equipped with **three-piece** draught bars. Two of these bars are attached together by a jointed steel coupling to give flexibility, and the pull of the team is taken from two shackles on the front bar as shown in the illustration below. The sizes made in this way comprise:—

- 6-section set, 120 teeth, covering 20ft.
- 8-section set, 160 teeth, covering 27ft.
- 10-section set, 200 teeth, covering 33ft.

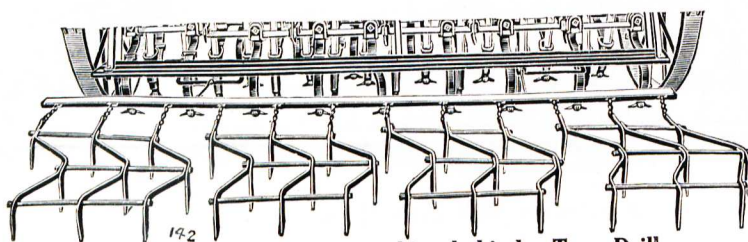


Tractor Bar with Central Pull for Diamond Harrows

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

The Suntrail Harrows (Stump-Jump)

The Little Harrow behind the Drill



The Suntrail Harrows, working behind a Tyne Drill

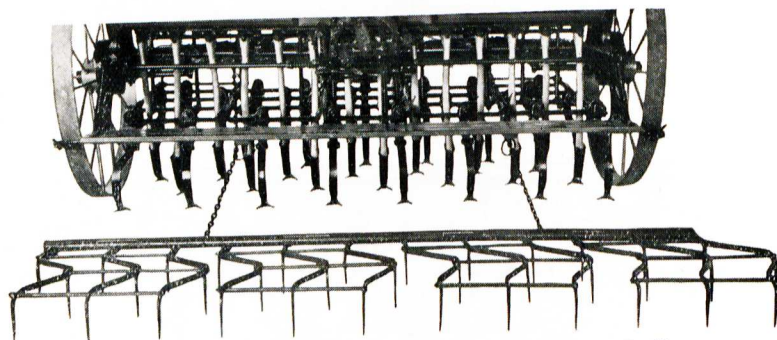
The Tyne Grain and Fertilizer Drills (now in universal use) leave ridges and furrows behind them, instead of a level surface. Most farmers prefer to level these off, and this work is effected with very little extra draught by the use of the Suntrail Harrows.

These are made of light section steel, but as they are constructed on the same principle as the heavier Sunshine Stump-Jump Harrows, they will work in rough conditions without suffering damage. They are supplied complete with draw-bar and with a pair of long D irons to attach to the footboard of the Drill. These facilitate positioning when turning.

The sizes made are:—

- 2-section set, to suit 8-row Drill.
- 3-section set, to suit 12-row Drill.
- 4-section set, to suit 14 or 16-row Drill.
- 5-section set, to suit 20-row Drill.

The Suntow Following Harrows (Stump-Jump)



The Suntow Harrows working behind a Tyne Drill

In rougher country, such as the Mallee, or other newly-cleared parts, it is found desirable to have a following Harrow drawn by chains from the axle bed of the Drill. For this purpose, the Suntow type is provided. The teeth are of steel, and the bar is attached **by chains** to the channel steel bed of the Drill (instead of to the footboard). The chains are supplied as part of the equipment of the Harrows. The Suntow type is manufactured in the following sizes:—

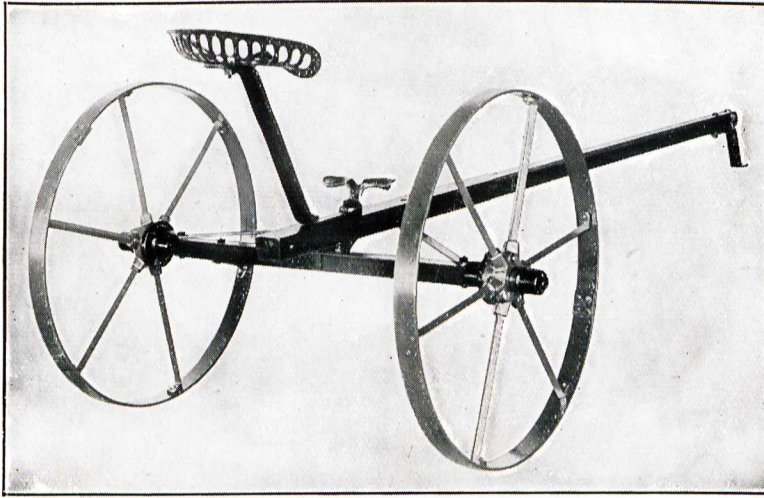
- 3-section set, to suit 12-row Drill.
- 4-section set, to suit 14 or 16-row Drill.
- 5-section set, to suit 20-row Drill.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.



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The Sunride Harrow Cart

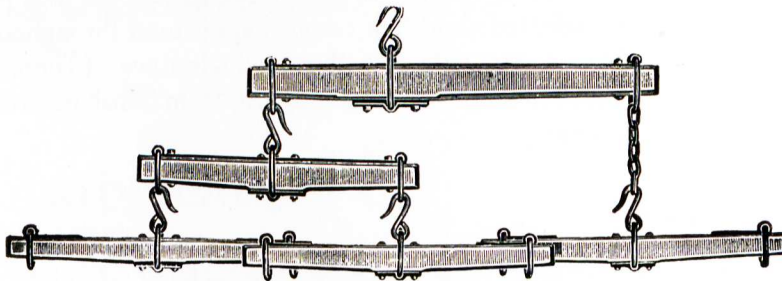


Sunshine Harrow Cart, to enable the operator to ride while driving the team

The labour incidental upon harrowing is rendered much more easy if the operator can ride on a comfortable seat instead of walking. This is effected by using the simple Sunshine Harrow Cart, as shown in the adjoining illustration. A connection is provided at the point of the pole to bolt to the bar of any Harrow. The use of these Carts results in many more acres per day being harrowed than when the operator has to walk in the dust behind the implement.

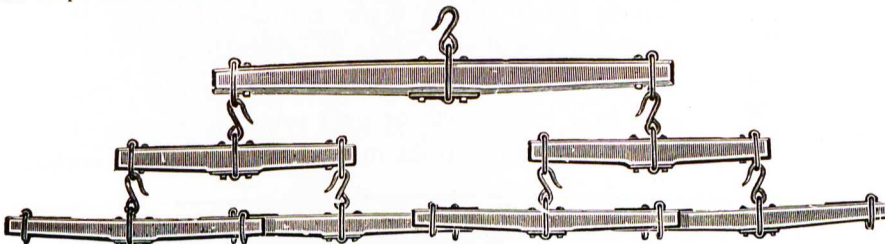
Sunshine Swingletrees for Ploughing, Etc.

Made in 2, 3, 4, 5 and 6-Horse Sets



3-Horse Set

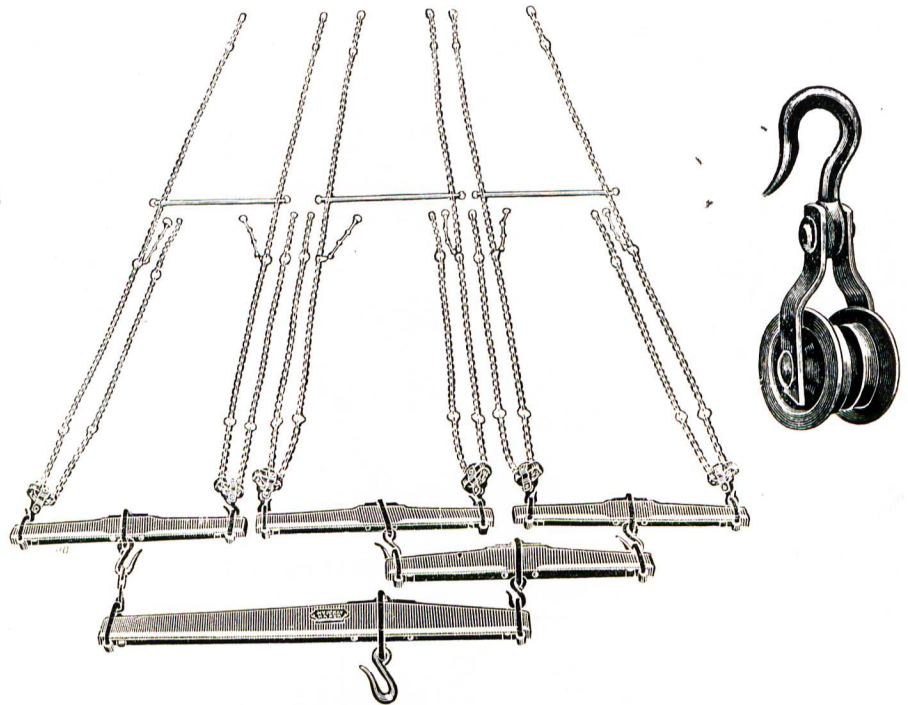
SUNSHINE SWINGLETREES are made of the best selected seasoned hardwood, neatly finished and painted. They are heavily strapped with steel bars, and the hitch centres are adjustable. All hooks and loops are best forged. For strength and service these Swingletrees are unexcelled.



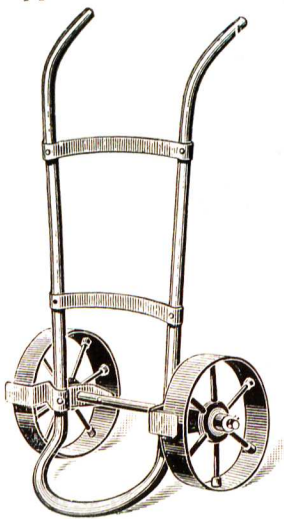
4-Horse Set

The Sunshine Equalising Horse Yokes

CHAIN AND
PULLEY YOKES



The advantages of using Tandem Equalizers for big teams are more fully recognised each year. For pulling large Ploughs and Cultivators this rig is specially recommended, and it is also frequently adopted for wide Harvesters. Great strength is provided in the bars, which are of hardwood with a backing of steel. The pulleys are neat in design, and of ample strength, and best selected short-link crane chain is used throughout. They are supplied in 4, 6, 8 and 10-horse sets, with or without swingle-trees. (These swingle-trees differ in length, also in strength, from Sunshine ordinary Plough swings.)

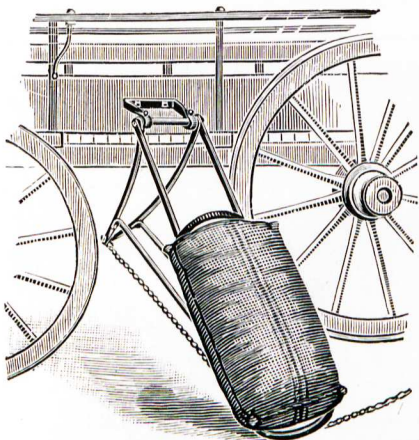


The Sunshine Sack Truck

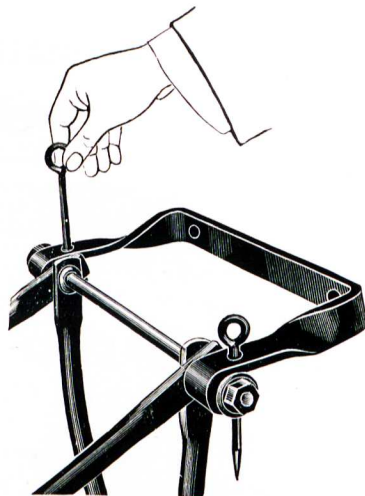
These are greatly used for moving bags of wheat and other produce in the barn, at the railway station, and even in the harvest field. Being made entirely of metal, they are most durable and will give years of satisfactory service. The wheels are 11 inches in diameter by $2\frac{1}{2}$ inches wide, enabling them to pass over loose earth or over rough roadways, etc. They are sold at such a low price that no farm should be without one.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

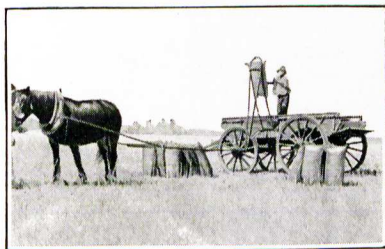
The Sunshine Bag Loader



MADE IN TWO
SIZES—5 FEET
AND 6 FEET



Easily detached from Waggon
Bracket when not in use



This is an exceedingly useful and popular invention for farmers' use. Many thousands have been sold throughout the Commonwealth, and everyone who is in possession of one of these labour-saving devices values it at ten times its original cost. It does away entirely with the back-ricking process of waggon-loading by manual labour. The horse, instead of the man is used to elevate the bag. It is simple and effective. Easily attached to or detached from the waggon. The cost is exceptionally low, and every farmer should own one or more. Handy for loading all sorts of cereals, potatoes, and artificial fertilizers in sacks.

Lubricating Oil

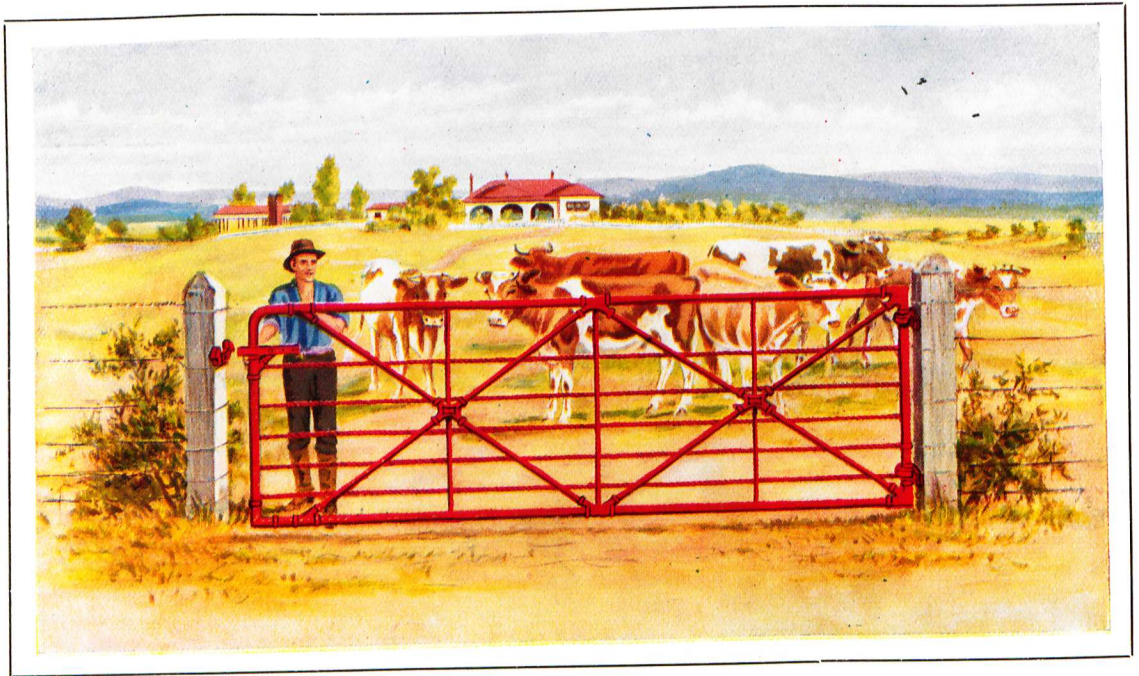
Farm Implements must be well lubricated at all bearings, and good Oil is cheapest in the long run. It is most undesirable to use **Crankcase Drainings** for this purpose, as they frequently cause increased friction and wear.

For a great many years Sunshine Harvester Oil has been supplied to users of Sunshine Machines and Implements with complete satisfaction. It is packed in one-gallon tins (8 in a case), or four-gallon tins (2 in a case). Although a high-grade Oil, it is offered at a very reasonable price.



H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Farm Gates



Impart an air of prosperity wherever used

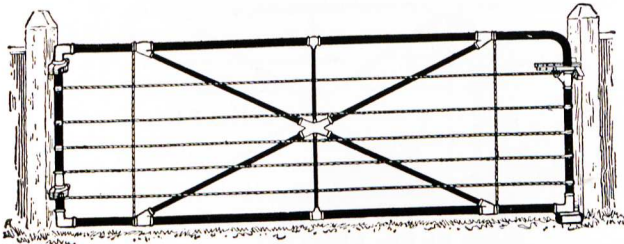
The manufacture of Metal Gates at Braybrook Junction (now Sunshine) dates back to the year 1890. In those times a few hundred were made annually, but the output is now many thousands each year, and they are used and liked in all States of the Commonwealth. They are made of best steel tubing, with chill-moulded joints. This is a form of jointing unexcelled for the purpose. There are no threads, no sockets, no bolts and nuts—nothing that can be injured by exposure to the weather, nothing that can shake loose during years of constant use. The moulded joint practically welds the whole frame into one solid piece, which will never twist or sag under any ordinary conditions of use.

Every Gate is supplied complete with hinges and fasteners, and the necessary bolts and coach screws for attachment to the posts. All Gates are dip-painted after manufacture, ensuring protection against rust.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine X Stay Gates

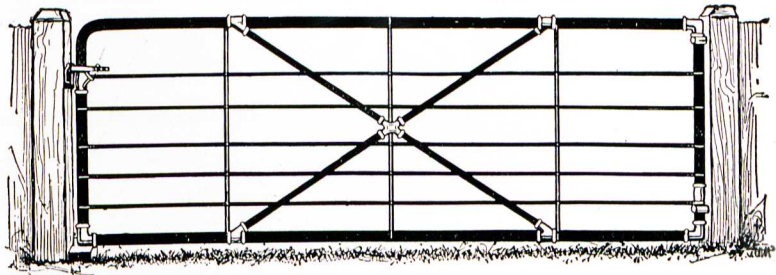
For Sheep and Wheat Country



Style No. 23—

The cheapest Gate on the market.
One size only, 10 feet.

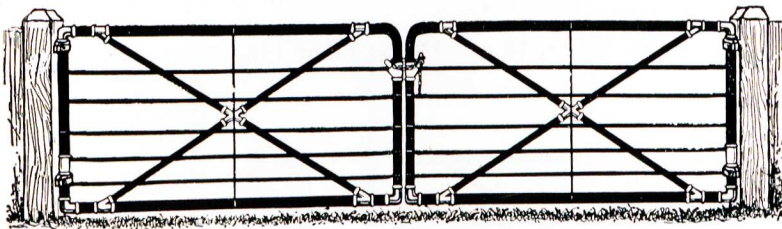
Style No. 23—10 feet only (Pipe 1 $\frac{1}{8}$ in. external)



Style No. 25—

8 feet, 10 feet, 12 feet.

Style No. 25—8 feet, 10 feet, and 12 feet (Pipe 1 $\frac{3}{8}$ in. external)



Style No. 25A—

Two-leaf Gate, with centre chain fastener.

16ft. (2 leaves, each 8ft.).

20ft. (2 leaves, each 10ft.).

Style No. 25A—16 feet and 20 feet (Pipe 1 $\frac{3}{8}$ in. external)

In all cases the price of the Gate includes hinges, latch, and catch, together with the necessary bolts and coach screws. Two hinge bolts, if so specified when ordering, will be supplied of any length needed to suit the size of the hanging post. The latch has adjustments to accommodate it to any shifting of the catch post. The catch (fastened to the post by coach screws) is suitable for opening the gate either way; the catch is also adaptable to use either on the face or the side of the post. In all cases the measurement given is the width of the opening—from post to post. All Sunshine Gates are 4 feet high. If desired, a chain fastener is supplied in lieu of the latch and catch.

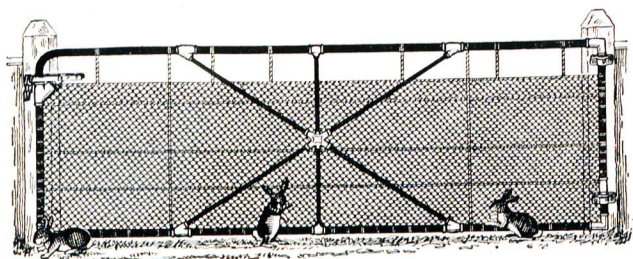
Split-pattern hinges are supplied with X Stay Gates. These are easy to attach, and are practically indestructible. In the latest pattern X Stay Gates the weight is carried on the bottom hinge, relieving the post of strain at the top.

Style No. 25A is always supplied with centre chain fastener. See page 96.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine X Stay Gates

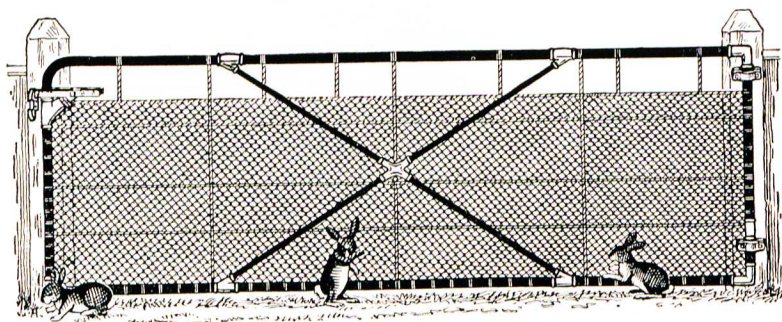
For Rabbit-infested Districts



Style No. 24—

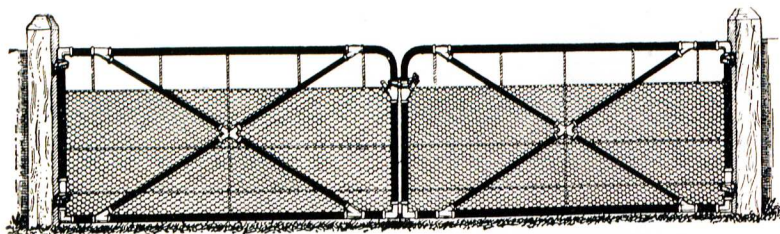
Rabbit netted. The cheapest netted Gate. 10 feet only.

Style No. 24—10 feet only (Pipe $1\frac{1}{8}$ in. external)



Style No. 26—
Rabbit netted. 8 feet,
10 feet, 12 feet.

Style No. 26—8, 10 and 12 feet (Pipe $1\frac{1}{8}$ in. external)



Style No. 26A—

Rabbit netted, in 2 leaves.
16ft. (2 leaves, each 8ft.)
20ft. (2 leaves, each 10ft.)

Style No. 26A—16 feet and 20 feet (Pipe $1\frac{1}{8}$ in. external)

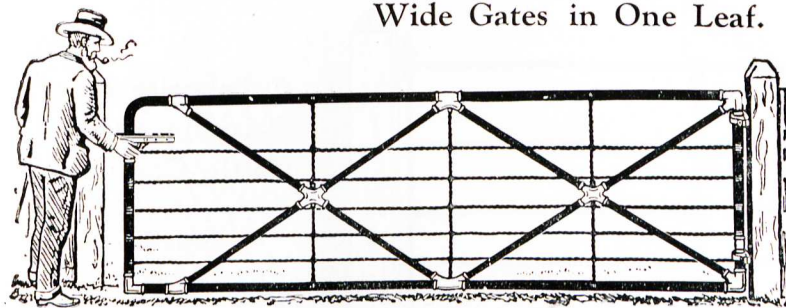
Hinges, latch, and catch are the same as described on previous page. Attention is called to the fact that all Sunshine Rabbit-Netted Gates have SQUARE BOTTOM CORNERS without extra charge. The netting is 3 feet high, with $1\frac{1}{4}$ inch mesh of 17-gauge galvanised wire (galvanised after manufacture), being the highest grade netting obtainable for rabbit-proofing.

As shown in the illustrations, the hinges and fasteners are such that the Gates may be hung on the FACE of the post, assuring additional security against the passage of young rabbits.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Double X Stay Gates

Wide Gates in One Leaf.



Style No. 27—10, 12, 14 and 16 feet (Pipe 1½ in. external)

Style No. 27—

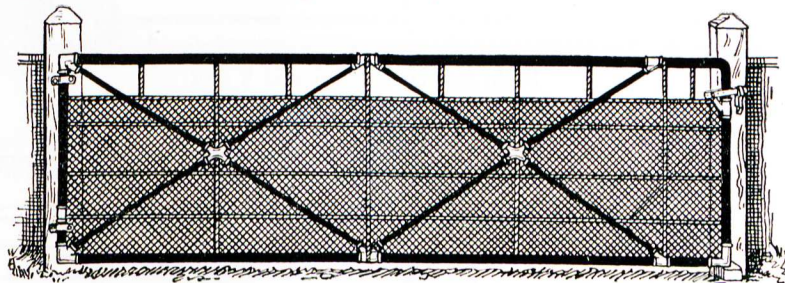
Sheep-proof.

10, 12, 14 and 16 feet.

Style No. 28—

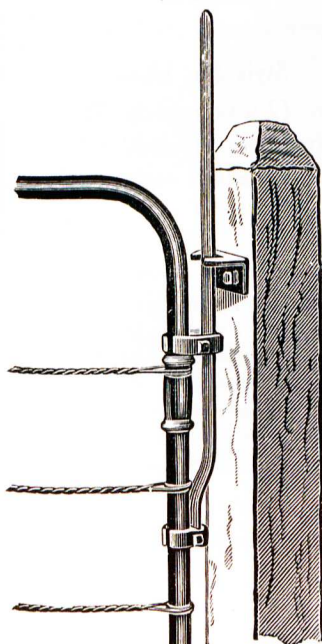
Rabbit-proof.

10, 12, 14 and 16 feet.



Style No. 28—10, 12, 14 and 16 feet (Pipe 1½ in. external)

The additional diagonal stays in the double X stay construction give a strength and rigidity not to be found in any other tubular Gate. This feature permits of the manufacture of Gates up to 16 feet wide in one leaf with satisfactory results. These wide Gates are specially useful for wheat farmers, who need large openings for the passage of harvesting machinery, etc. Hinges and fasteners are as stated on page 96. Note the square bottom corners of the netted Gates.

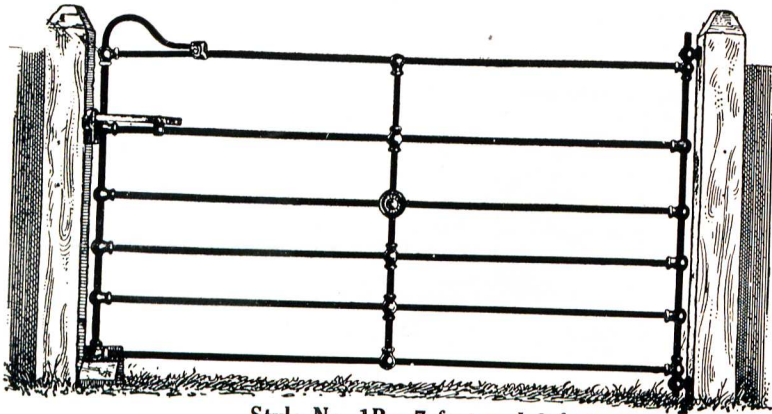


Spring Fastener for Sunshine Gates

Gates of styles Nos. 25, 26, 27, and 28 (only) can be fitted with a horseman spring catch—with latch, as illustrated—at a small extra charge (in lieu of the usual latch and catch). This catch is adjustable. It may be set higher up, or lower down, as desired. It is of great convenience for opening the gate from horseback. Also, it is self-latching when pushed shut.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

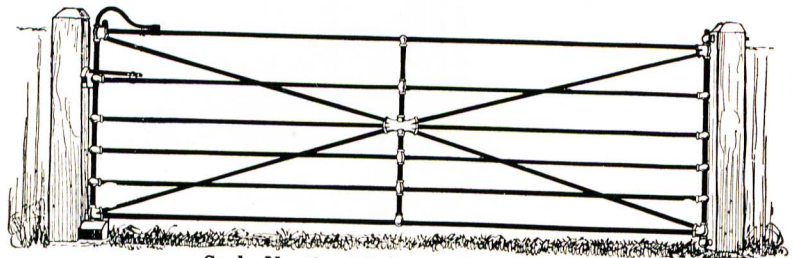
Sunshine Bar Gates



A Favorite in
Dairying and
Cattle Country

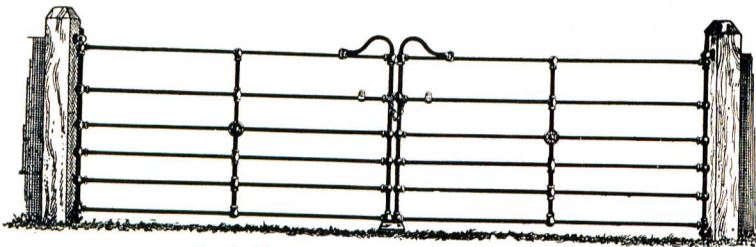
Style No. 1B—
7 feet, 8 feet.

Style No. 1B—7 feet and 8 feet



Style No. 1—
10 feet, 12 feet.

Style No. 1—10 feet and 12 feet



Style No. 1A—

14ft. (2 leaves, each 7ft.)
16ft. (2 leaves, each 8ft.)
20ft. (2 leaves, each 10ft.)

Style No. 1A—14, 16, and 20 feet

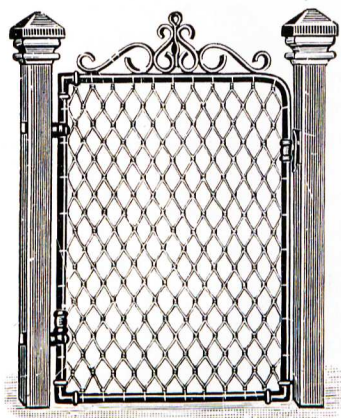
In all cases the price of the Gate includes hinges, latch and catch, together with the necessary bolts and coach screws. Hinge bolts, if so specified when ordering, will be supplied of any length needed to suit the size of the hanging post. The latch has adjustments to accommodate it to any shifting of the catch post. The catch (fastened to the post by coach screws) is suitable for opening the gate either way; the catch is also adaptable to use either on the face or the side of the post. In all cases the measurement given is the width of the opening—from post to post. All Sunshine Gates are 4 feet high.

The hinges supplied with the bar gates are of the simple socket type—the socket forming the head of the bolt which goes through the hanging post. Note that the whole of the weight of the Gate is supported on the bottom hinge, thus relieving the post of strain at the top.

Style No. 1A is supplied with centre chain fastener in lieu of latch and catch.

H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Garden Gates



Style No. 13—3 feet and 3½ feet (Pipe 1⅛ in. external)

Style No. 13—

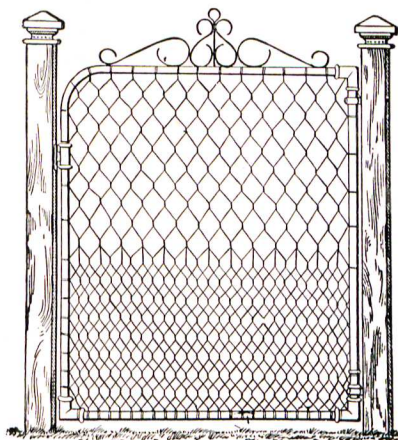
DOG AND FOWL-PROOF

3 feet, without Scroll	3 feet, with Scroll
3½ feet, without Scroll	3½ feet, with Scroll

Style No. 13A—

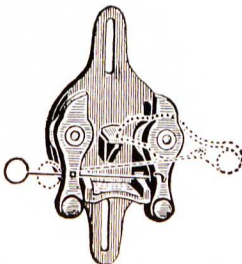
CHICKEN AND RABBIT-PROOF

3 feet, without Scroll	3 feet, with Scroll
3½ feet, without Scroll	3½ feet, with Scroll



Style No. 13A—3 feet and 3½ feet (Pipe 1⅛ in. external)

Style No. 13, as illustrated, is a light and handsome Gate for small openings to gardens, lawns, etc. It is filled with hand-woven, heavy galvanised wire mesh, 5 inches by 3 inches, and is dog and fowl-proof. Height, 4 feet; pipe, 1⅛ inch external.



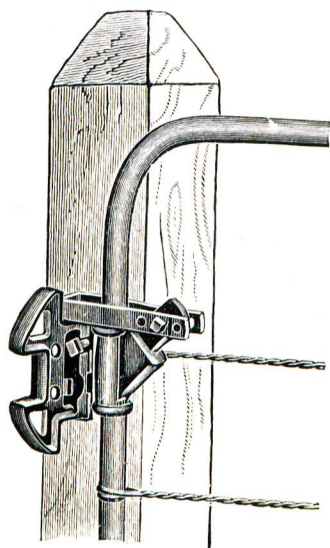
The automatic double-tumbler fastener supplied with each Gate is simple and secure. It may be set for opening the Gate any one way or both ways. Coach screws are included to attach the fastener to the post.

Style No. 13A differs from No. 13 in the weaving only, the lower portion being hand-woven to 1¼ in. mesh, thus making it chicken and rabbit-proof. Please note the square bottom corners on all Sunshine rabbit-proof Gates.

Styles Nos. 13 and 13A have split-pattern hinges, same as used on X stay Gates. Hinge bolts or coach screws are included in price. The latch is now made adjustable to allow for any slight shifting of the catch post.

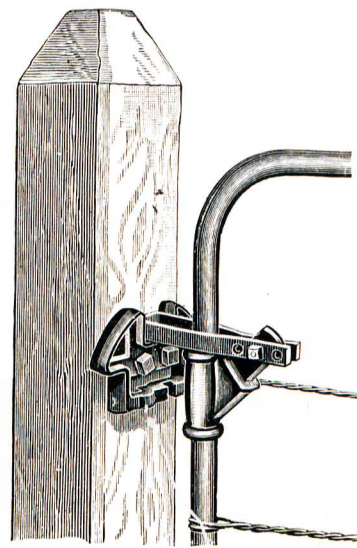
H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

Sunshine Gates for Security



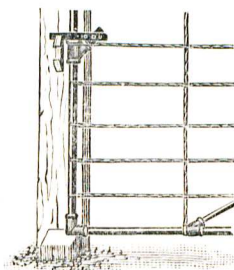
Showing catch on face of post

Horse and cattle paddocks need strong Gates, and the Sunshine X Stay and Bar Gates amply fill this need. All Sunshine Gates are 4 feet high, and the widths stated are the measurements from post to post (allowance having been made for the space occupied by hinges and fastenings). In the X Stay Sheep-Proof Gates there are five lateral and three vertical bracings of twisted galvanised wire, which add greatly to the strength as well as making them sheep-proof. All X Stay Gates are now made so that the weight of the Gate is carried on the bottom hinge. This removes most of the strain from the TOP of the hanging post. It also permits of the top hinge being placed lower down the post, or a shorter post may be used.



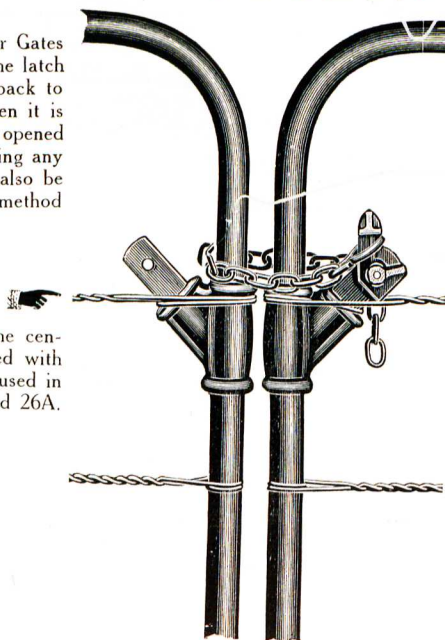
Showing catch on side of post

The illustrations show the latch and catch as used on Sunshine Bar Gates and X Stay Gates. The latch is movable and the catch is a fixture. The latch is adjustable, giving the advantage of being able to set it forward or back to suit the position of the catch post. The catch is so designed that when it is attached to the side of the post (the usual position) the Gate may be opened either way or both ways. It may also be sunk into the post, thus avoiding any projection. Another feature of the design of the catch is that it may also be placed on the FACE of the post, as shown in one of the sketches. This method is often adopted in hanging rabbit-netted Gates.

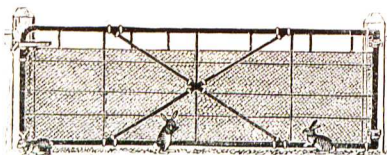


Weight of gate taken on tapered wooden foot

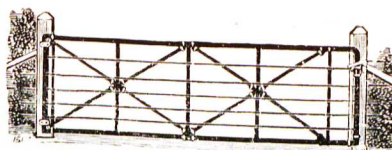
This illustration shows the centre chain fastener supplied with the X Stay Gates, when used in pairs as in styles 25A and 26A.



We call attention to this illustration wherein the closed Gate is shown resting on a tapered "foot." This takes the weight of the Gate, and greatly relieves the hanging post of strain. We recommend this device to all users of Sunshine Gates.



Sunshine Gates are supplied in large numbers to Railway and other Government Departments.



H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.

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H. V. McKay Pty. Ltd., Sunshine Harvester Works, Sunshine.





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