

Southern Cross Windmills

SPECIFICATION

SIZES:—6ft., 8ft., 10ft., 12ft., and 14ft. Diameter of Windwheel.

DESIGN:—Double-Geared, Fully-Enclosed, Automatic-Oiling.

GEARING:—Machine Moulded Gearwheels and Pinions, meshing accurately and running silently. Both gearwheels and Pinions run continuously in oil.

BEARINGS:—Of First Quality Babbit Metal. The Main Bearing extends the full length of the shaft between the Wheel Hub and Pinion. All Bearings are of ample dimensions.

OILING:—Continuous circulation from gear box through all bearings while mill is working. The gears pick up the oil from the bottom of the gear box and deposit it on the top of the bearings through which it circulates and returns to the gear box.

GOVERNOR:—By the Southern Cross "Gravity" Principle, without springs or adjustments. This Governor makes the mill safe in any wind.

TURNTABLE:—Is sensitive and durable. It is fitted outside the mast pipe. The Turntable needs no adjustment or attention and enables the mill to turn freely to face the lightest winds.

REEFING:—The whole reefing arrangement is outside the mast pipe and is extremely simple and effective.

STUB TOWER:—The Stub Tower is electrically welded to the fixed mast pipe making a rigid connection with the tower.

WINDWHEEL:—The Tension Arm Wheel built up like a bicycle wheel, combines great strength with lightness. It will start in the lightest wind and will not race.

THE "Z" PATTERN WINDMILL is a neat, well balanced machine, and all steel parts are heavily galvanised after manufacture.

"Z" Pattern Double-Geared

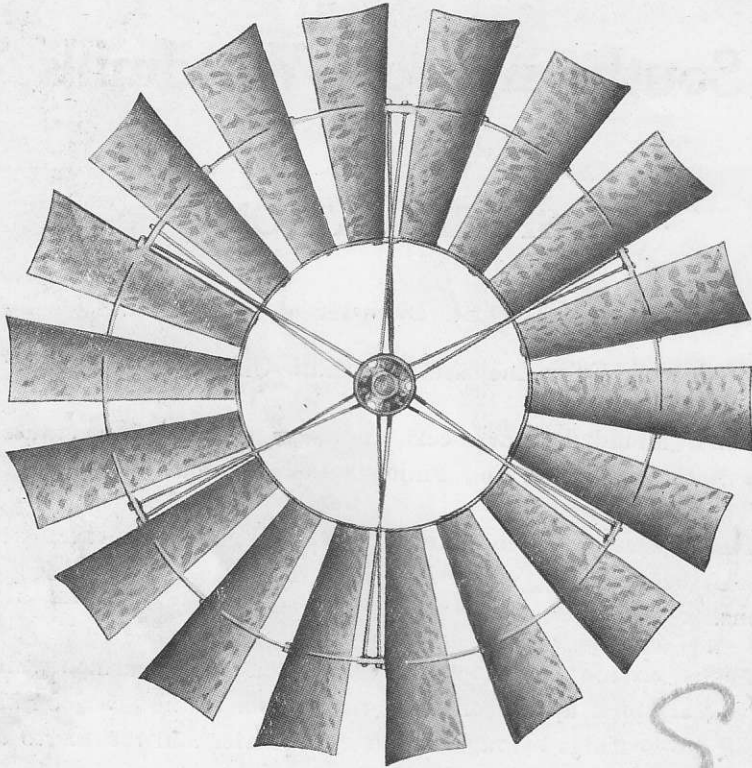


Fig No. 2135

THE WINDWHEEL

THE "Z" pattern windmill has a strong tension arm windwheel which is built up in the same manner as a bicycle wheel, combining lightness and great strength.

The fans are made from a special grade of spring steel curved to produce a rigid fan, which is set at the correct angle to give the greatest efficiency.

The whole windwheel is heavily galvanized. It is a strong, light and easy running wheel.

THE TOWER

A skilfully designed system of bracing, with special high tensile steel rods, heavier leg angles, and an electrically welded steel stub tower have produced in the Southern Cross "Z" pattern tower a tower which has been proved by actual destruction tests to be 20% stronger than previous designs.

The three-post tower is scientifically and mechanically correct.

There is no stronger windmill tower than the Southern Cross.

"Z" pattern towers are supplied standard for concrete foundations and are measured by their height above ground, i.e. a 30 feet tower is 30 feet above the ground with 3 feet 6 inches to 4 feet for bedding in concrete.

Southern Cross Windmills

All Southern Cross Windmills and Towers are Warranted for THREE YEARS. See inside Front Cover

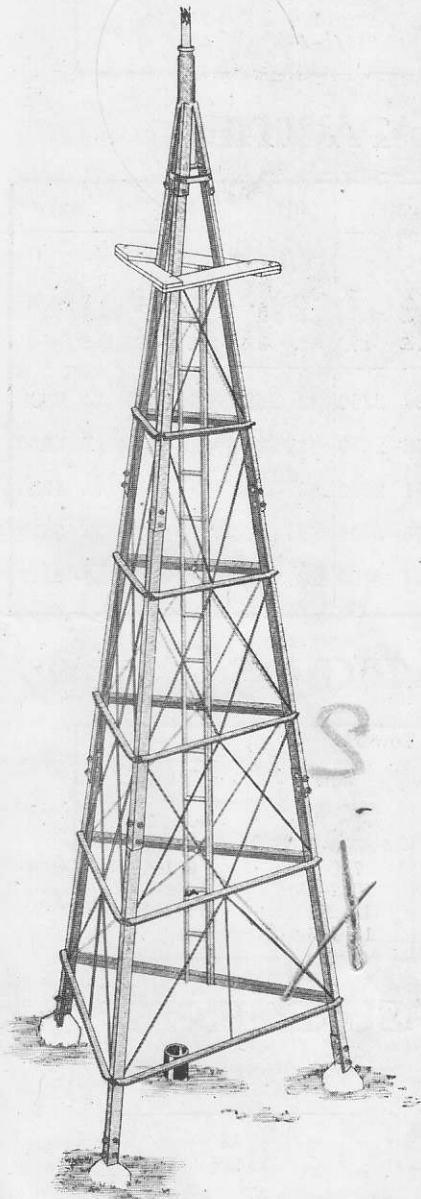
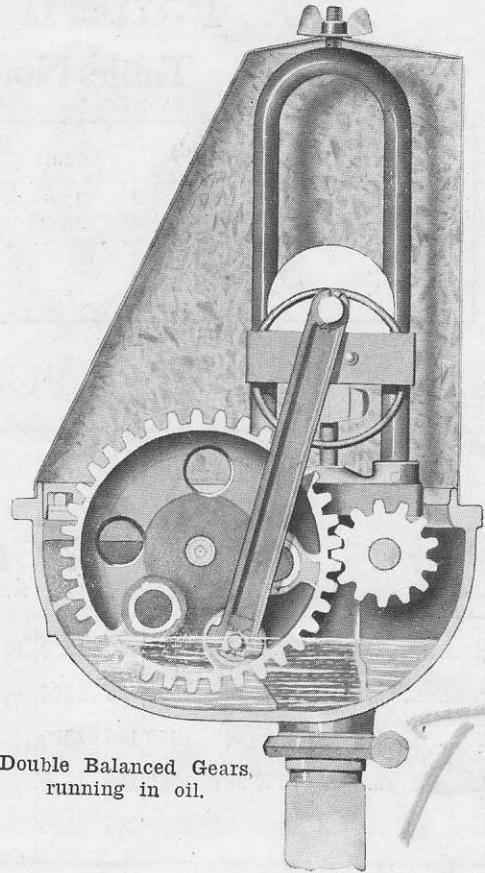


Fig. No 2121



Double Balanced Gears,
running in oil.

Fig. No. 2122

THE ENGINE

THE illustration above is a sectional view of the "Z" pattern mill engine.

Two gearwheels and pinions, in which the tough skin of the metal is preserved, being machine moulded, divide the work equally, and transfer the power to the connecting rods, which lift the pumprods with a direct central lift.

All parts of the engine are enclosed in an oil bath, and all bearings are constantly flooded with oil.

A galvanised helmet fits tightly on to the top of the oil bath, keeping the oil in and the rain and dust out.

"Z" Pattern Double-Geared

Table No. 1 — PRICES

Size Mill	Mill only	With Towers			
		20ft.	25ft.	30ft.	40ft.
6ft.	£8/12/6	£13/ -/-	£14/ 2/6	£15/ 7/6	£17/17/6
8ft.	£11/ 5/-	£16/15/-	£18/ -/-	£19/10/-	£22/ 7/6
10ft.	£15/15/-	£22/15/-	£24/ 5/-	£26/ -/-	£29/ 5/-
12ft.	£21/ -/-	£28/10/-	£30/ 5/-	£32/ 7/6	£37/10/-
14ft.	£31/ 5/-	—	£39/10/-	£43/ -/-	£50/ -/-

Table No. 2 — PUMPING CAPACITIES

Diameter of Pump	1½in.		2in.		2½in.		3in.		3½in.		4in.							
	Max. depth in feet	Av'ge Gals. per day	Max. depth in feet	Av'ge Gals. per day	Max. depth in feet	Av'ge Gals. per day	Max. depth in feet	Av'ge Gals. per day	Max. depth in feet	Av'ge Gals. per day	Max. depth in feet	Av'ge Gals. per day						
6ft.	—	—	50	1040	40	1310	32	1640	25	1970	20	2350	18	2636	16	3200	14	3990
8ft.	—	—	106	1090	85	1360	68	1700	56	2060	46	2470	41	2850	35	3330	27	4300
10ft.	238	950	182	1240	145	1560	117	1930	97	2320	81	2780	69	3260	59	3780	46	4940
12ft.	311	1050	237	1380	187	1740	151	2150	127	2570	105	3100	89	3640	77	4220	59	5510
14ft.	423	1050	322	1380	255	1740	205	2150	173	2570	143	3100	122	3640	105	4220	80	5510

Table No. 3 — PACKED WEIGHTS

Size Mill	Mill Only	With Towers			
		20ft.	25ft.	30ft.	40ft.
	c. q. lbs.	c. q. lbs.	c. q. lbs.	c. q. lbs.	c. q. lbs.
6ft.	1-3-21	4-0-17	4-2-20	5-0-21	6-1-8
8ft.	3-1-3	5-3-16	6-2-0	7-0-12	8-1-19
10ft.	5-3-11	9-0-24	9-3-25	10-2-25	12-1-11
12ft.	7-3-20	11-3-5	12-2-16	13-2-1	15-1-10
14ft.	10-3-0	—	16-1-2	17-1-5	19-1-22

Table No. 4 — SHIPPING MEASUREMENTS

Size Mill	Cubic Feet	Size Mill	Cubic Feet
6ft.	4½	12ft.	18
8ft.	8	14ft.	22½
10ft.	13½		