CHAPTER XXIV

MOWING

The Effect of Mowing—Roller Machines, 12 to 24 inch Cut—Side Wheel Machines, 13 to 19 inch Cut—Motor Power Attachments—Motor Mowers—How to Choose a Machine—The Width of Cut—Motor Mowers, 16 to 22 inch Cut—Motor Mowers, 24 to 30 inch Cut—Motor Mowers, 36 to 42 inch Cut—Horse Machines, Roller Type, 24 to 42 inch Cut—High Side Wheel Type, 32 to 36 inch Cut—The Triple Gang, 84 inch Cut—The Quintuple Motor, 138 inch Cut—An Explanation—How to Clean Mowing Machines.

The Effect of Mowing

It is simply extraordinary the beneficial effect close and regular mowing has on turf, and the truth of this is very apparent to the observant.

If fields are examined that are regularly cropped for hay, grazed by cattle, sheep or rabbits, the evolution of turf is fully exposed; the hay field being the first step, the loosely cattle-grazed the second, that closely fed by sheep the third, and the very closely rabbit-nibbled the last. It may seem idle to point out such an obvious truth, but there are two points to be established, the one being that close mowing is essential to the formation of close turf, and the other, which is equally important, that it must be persisted in all the year round.

Some people are under the impression that Winter-mown turf is liable to be cut by frost, whilst others think that it is beneficial to rest it from the mowing machine during the Winter. As a matter of fact it is only possible to damage turf by mowing when it is actually frozen, a condition in which no sane man would touch it, but even should he do so damage will not always result. As for resting it, well, this is simply an excuse for the lazy. Putting Greens are mown all the year round, so are the Tennis Courts at Wimbledon, and I have yet to learn that rabbit warrens are rested, and yet these are the places where one finds the very best turf.

If grasses are allowed to grow to maturity and seed, the plants are actually exhausted, many die, and the growth

of the rest for the remainder of the year is negligible, unless the season happens to be warm and wet. If, on the other hand, it is regularly grazed or mown short, the strength of the plant is thrown back to the roots, which form a dense mat and throw up a multitude of blades in place of relatively a few, such continue to grow as long as moisture and temperature permit, and so form what we know as turf. If grass is not cut, the tall varieties submerge those of a dwarfer character, but if it is mown exactly the opposite happens, for the dwarf creeping grasses expand and crowd and starve their more robust relatives.

The change in the condition of turf from coarse to fine has led to much controversy, and it has actually been stated that the variety and nature of grasses can be changed by close mowing. This is only half true, one obviously cannot change the variety of grasses by mowing, but their nature can be changed. Some broad-leaved grasses can be forced to produce finer herbage by close and constant mowing, but the moment they are allowed to grow freely they immediately revert back to their original condition.

The average lawn that is abandoned during the Winter assumes a coarse, dingy, ragged appearance, which is not wholly eliminated until it has been mown several times in the Spring. This clearly proves the importance of close mowing all the year round if a fine, close, durable turf is required.

Roller Machines, 12 to 24 inch Cut

Until quite recently Mowing Machines had developed to a pitch which became practically fixed, and little or no improvement was made in them.

They all suffered from the same faults, but this is not surprising, because they were all made more or less to the same pattern.

The Roller Machine as a general rule gives the best finish, but at the same time it is a heart-breaker to push, whilst the Side Wheel Machine, which is relatively easy to use, lacks the finish.

A new machine has been put on the market by the J. P. Super Lawnmower Company, which embodies many novel and valuable features. They are made in two sizes, 12 and 16 inch, their mechanism is both dirt and dust proof, and runs in oil with the consequent reduction of friction.

Ball bearings are fixed to the back axle and rotary cutting cylinders, which makes them very easy to push. The adjustments for setting the cutter and the front roller are effected by means of two hand wheels which eliminate spanners, and all parts are interchangeable.

Taking the machine at its face value, it is undoubtedly a great advance, but I am yet to be convinced that it gives the same faithful service as a Ransomes' "Automaton" or a Shanks's "Caledonia." Both of these makes are offered with gear and chain drive with many different widths of cut.

They are machines of excellent worth and so well known as to need no special description.

The gear-driven type requires fewer adjustments than those driven by chains, but the latter type is easier to work and gives the best results.

Ransomes' "Marquis" with a 12 or 14 inch cut is another of the modern type and claims to be the only machine on the market with ball bearings fitted at every journal; that is to say, they are fitted to the Cutting Cylinder, Land, and Wood Rolls and are of a self-aligning type, protected in dust-proof housings and simple in adjustment. This is Ransomes' very latest, and incorporates every conceivable improvement necessary to ensure exceptional ease in working and a fine finish.

Side Wheel Machines, 13 to 19 inch Cut

The pick of the High Side Wheelers are Ransomes' "New Empire" and Shanks's "Talisman," both being fitted with ball bearings, the cutting cylinder being 6½ inches in diameter and fitted with seven blades.

The "Rendle" Motor Mower and Roller Attachment

This is undoubtedly an efficient labour-saving device of the utmost importance to those interested in the upkeep of lawns both large and small.

It is a self-contained power unit, which can be attached in a few minutes to any make of lawn mower of the roller type with a cut of from 16 to 27 inches.

I can recommend this attachment with absolute confidence for these reasons :—

It is easy to attach without making alterations to the machine or machines in use, provided only that they are

of the roller type, consequently nothing has to be scrapped. The control of the power unit is simple in the extreme. Anyone can learn how to drive and control it in a few minutes.

It cuts out all physical labour, and even a 27-inch machine can be operated without fatigue by a lad or a lady. The power is sufficient to push a 27-inch machine up or along any slope upon which it is practicable to use the same mower by man or pony traction.

Its running costs are absurdly small, it consuming about one pennyworth of oil and petrol per 1,000 square yards mown, or, say, 4½d. per acre.

It saves time and labour and is also adaptable for pushing rollers.

Motor Mowers

The motor-car developed from a vehicle built on the lines of a horse-drawn carriage in combination with an internal combustion engine, to the swift, silent, reliable, graceful, pleasing models of the present-day car.

Similarly the Motor Mower is developing slowly from a makeshift combination of a lawn mower fitted with a petrol engine, to self-contained, complete and efficient units, newly designed from start to finish by experienced motor engineers.

The Motor Mower is without doubt the machine of the future, and those who have any doubts in regard to its reliability, efficiency or economy can easily dissipate them by a little hard thinking.

We all know that a small motor will propel a cycle uphill and down dale, over good, bad or indifferent roads, at express speed ; so why should not a similar engine propel a mowing machine at four miles per hour over the smooth surface of a lawn ? This they do, so it seems waste of time to argue the matter further.

A Mowing Machine cannot cut close and without ribbing unless it is provided with a large cylinder fitted with many blades, or one that revolves rapidly, consequently one can expect cleaner work from a Motor Mower travelling along at four miles an hour than one would from a hand-driven machine travelling at three miles per hour or less.

There is no doubt that hand and horse machines are doomed, with the exception of the Triple Gang, so far as large areas are concerned, for the simple reason that they

are uneconomical in time and labour, and not as efficient as the power machines.

The secret of a good Mowing Machine lies in the excellence of the bottom blade, the diameter of the cutting cylinder, the number of knives fitted and the speed at which it revolves. It is obvious that bottom blades of equal merit can be fitted to any class of machine, but the size of the cutting cylinder and the speed at which it revolves are strictly limited in hand-operated machines, because any increase in either calls for extra effort, which is not forthcoming. This disability cannot, however, be associated with the power machine; it is simply a question of design and imagination, and I will be disagreeably surprised if, in the course of a few years, all machines are not made with large high-speed cutting cylinders, fitted with many blades, which will absolutely shave the turf. The secret of good turf is due, to a large extent, to close and frequent mowing, and as power machines will cut as close as they can be set without extra effort, it is plain that they have an enormous advantage over the hand machines, which are difficult to push if close set, unless indeed the grass is cut daily during the growing season.

The power machine ceases to be economical if large areas are to be mown; it cannot compete with the Horse-drawn Triple with an 84 in. cut, but this in its turn is ruled out by the Power-driven Quintuple with an 11 ft. 6 in. cut.

This brings us back to the same old question, "What class of machine shall I buy?"

How to Choose a Machine

I have worked out this problem to my own satisfaction as follows:—

For small areas where a power machine would be obviously uneconomical, there is no alternative but to use a hand machine.

For larger areas, power machines with a cut of 16 to 42 in., according to the acreage and circumstances.

For large areas nothing can beat the Horse-drawn Triple, and for very large areas either two Triples or a Quintuple preferably pushed rather than drawn by a motor.

The Width of Cut

In order to arrive at the most economical machine, let us take a definite area of one acre and find out how many

miles machines of various widths will have to travel to mow it. With this information it will then be an easy matter to make the same calculations for any area.

As this is purely for the sake of comparison I will not make any allowance for turning or overlapping as both of these depend on the skill of the operator and the shape and lay-out of the ground.

Width of cut in inches.	Distance travelled in yards.		Miles.	Yards.
12	14,520	=	8	440
14	12,445	=	7	125
16	10,890	=	6	336
18	9,680	=	5	1,280
20	8,712	=	4	1,672
22	7,920	=	4	880
24	7,260	=	4	300
30	5,808	=	3	528
36	4,840	=	2	1,320
42	4,148	=	2	628
84	2,074	=	1	314
138	1,262	=	–	1,262

Motor Mowers, 16 to 22 inch Cut

Both Ransomes and Shanks offer a wide range of such excellent machines that it is a matter of great difficulty to make a choice and one is usually influenced in the end by some unimportant factor. It is to be regretted that an opportunity of putting them through a season's test side by side did not arise. Such a test would have enabled me to have come to a decision without any hesitation, but it did not arise, so I will assume they are of equal excellence.

Motor Mowers, 24 to 30 inch Cut

Again, Shanks and Ransomes offer a fine range of quality machines, but the great break is made by the "Dennis," which is built on the lines of a motor with a specially designed chassis. The 4 H.P. 4-stroke engine is easier to start and more silent than the usual two stroke. It has many other strong points, not the least being a trailer seat which can be attached to the mower.

This is in my opinion the best Motor Mower available,

and those interested in 24 or 30 in. machines should certainly give it the consideration which it undoubtedly deserves.

Motor Mowers, 36 to 42 inch Cut

For general use their weight and cost are against them, and I have not been able to satisfy myself that they are economical, as they certainly cannot live with a Triple Gang Machine. They are very useful, however, for use on cricket fields or where large areas require frequent mowing and rolling, as they can either be used as a mower and roller combined, or, by putting the cutting gear out of action, as a roller alone.

Ransomes' and Shanks's makes appeal to me most: they are good, sound, reliable machines, and certainly do their work well.

Horse Machines, Roller Type, 24 to 42 inch Cut

Ransomes' and Shanks's models stand alone, and are the only ones worth consideration. They have stood the test of time, but their old-time popularity is being contested insistently and fiercely by the modern power units.

High Side Wheel Type, 32 to 36 inch Cut

Ransomes' and Shanks's again stand out, and in all probability this type will persist for years, but in ever-decreasing numbers, and then only because of their ability to go over rough ground where the use of a Motor Mower would be impracticable.

The Triple Gang Type, 84 inch Cut

This is my old American friend "The Shawnee," but British, made by Ransomes. It is made up of three 30-inch units with a maximum cut of 84 inches, or, with the two wing units removed, a minimum cut of 30 inches. The three 30-inch units are fixed together in such a way that there is no chance of lifting when at work, and yet such full freedom of movement is allowed that each unit can follow the inequalities of the ground.

The machine is controlled by means of levers actuated by the driver, who can lift the cutters from the ground at will. The great point connected with them is that one Triple Gang Mower with one horse and one man can mow as much turf as three 30-inch machines with three men and three horses, and in the same time.

With a good horse it should travel at the rate of at least three miles per hour with an 84-inch cut ; so it has the motor mower, travelling at four miles an hour with a 42-inch cut, beaten to a standstill.

The Quintuple, 138 inch Cut

This wonderful labour-saving machine is not as well known in this country as it deserves to be. It can be fitted with a seat for the driver and a pole for a pair of horses or a draw-bar for motor traction. Its enormous cutting width reduces the mowing of a Golf Course or other large area from a long laborious operation to one of speed and simplicity.

An Explanation

It is obviously impossible without taking up an enormous amount of space to discuss the question of mowing machines closely. Many that have been passed over with but a few words are excellent machines. In fact, I have only attempted to draw attention to the outstanding features of some of the best. As a set-off, however, the tabulated specifications in Chapter XXV will enable those interested to compare the various makes and sizes, and draw their own conclusions.

How to Clean a Mowing Machine

The majority of people are reluctant to bring water into direct contact with mowing machines, and yet they do not hesitate to use them when the grass is heavy with dew or drenched with rain, and put them away covered with wet grass and dirt, which dries and hardens into position.

All mowing machines—hand, horse or motor—should be thoroughly cleaned every day by using a hose or water-can and a soft brush. The water will quickly remove all the grass and dirt from the knives, gears and machine generally, without doing any damage at all ; the paint and oil will protect the metal.

After cleaning, run the machine for a minute or two with the handles depressed and the blades clear of the ground, and so get rid of as much water as possible ; then oil and grease it where necessary and it will be ready for use the next day. The motor of a power machine should not be cleaned with water. All that need be done to it is to wipe it over with a greasy swab.