MARCH 1916

THE
GOLF COURSE

A MONTHLY BULLETIN DEVOTED TO THE DISCUSSION OF MODERN METHODS AS APPLIED TO GOLF COURSE CONSTRUCTION AND UPKEEP

Speeding Golf Turf Production

By Reginald Beale, F.L.S.

WHEN the production of Golf Turf was first started on a large scale, it was necessary to break down the hoary argument that a close-matted turf could not be grown in less than three years, but it was done at Sunningdale, England, by getting that fine course into play in just twelve months.

This in a way created quite a sensation, but there was really nothing to it, as it simply proved the contention that if the sowing of 100 lbs. per acre of suitable grass seed would produce a close turf in three years, a sowing of 200 lbs. per acre would produce a close turf in less than half that time.

It took the golfers a year or two to get used to this high speed, but I knew quite well that before very long it would become commonplace and that we would be asked to further reduce that "dead and expensive period" when the turf is maturing and when there is nothing doing so far as the club is concerned, except to wait patiently and pay interest on the capital. We therefore kept on experimenting and bided our time.

The next chance arrived with the making of the Sandy Lodge Golf Course, which is one of the best in the London district. The Club obtained possession of a fine stretch of undulating ground with a sandy soil. All the capital required to develop it was obtained very quickly and we were given a free hand. The result was that, with the help of nature, the Club had a perfect golfing turf in just under six months.

Since then the process of speeding up has continued, but I think the limit has at last been reached at the Royal Automobile Golf Course at Woodcote Park, Surrey, and the Gleneagles Golf Course in Perthshire, Scotland. Both of these are twenty-seven-hole courses—laid out in such a way that any two sections of nine holes can be played to make up a full round, and the capital sunk in the ventures amounted to £300,000, or say $1,500,000.

I was given full control of the preparation of the soil and seeding, and in both cases was instructed to produce the very best quality of turf in the shortest possible space of time, regardless of expense, as the directors recognized that economy lay in speed and quality.

I went all out to make fresh records. The soil was fertilized with every care, the seed beds prepared as if for growing choice rare flowers, and mixtures of the very finest and most expensive dwarf growing grasses were made up.

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ONE of the most excellently designed golf courses in America falls just short of greatness because of the turf on the putting greens. There is no reason why this turf should not be beyond reproach, yet after a number of years it is only slightly better than it was in its second season. It has not been the case of a penurious policy, for enough money has been spent upon the greens to turf a half-dozen courses, but an ever-changing policy is responsible for the waste of money and the mediocrity of the turf.

It matters not how superior the materials may be. If they are not handled properly, satisfactory results cannot follow. A carefully calculated plan of treatment must be conceived and adhered to rigidly.

Unfortunately, the vital importance of the green committee generally is regarded far too lightly. Every club appoints a body of men in whose hands is placed the destiny of the course. Only too often this committee is assembled hastily and without due consideration of their qualifications. True, they may be faithful workers, yet the course in their charge does not improve, nor does it keep abreast of the times. Possibly at the end of a year or two there is a general housecleaning and a new committee appointed. The chairman, like a new broom, immediately proceeds to "sweep clean," and often enough the policies of the former committee are disregarded and work begun along entirely different lines. It is possible that the policies of the old committee may have been ill-advised, but it is more than likely that if the work which they started had been continued along the same lines, results would be far more satisfactory than those following the pursuit of an entirely different program.

Grass may be produced in a few months, but the making of a real golf turf takes time. When new physicians constantly are called in, the patient is likely to suffer.

The rule of one of America's foremost clubs is well worth following. Here, years ago, an intelligent green committee was appointed, and after diligent investigation of conditions, it was decided to develop the turf along certain well defined lines. The committee worked in harmony with its chairman, each member schooling himself in the system, and when the chief finally relinquished the position, which he had filled so faithfully, his successor was appointed from among his associates who had worked with him so long. In this fashion, year after year, the green committee followed closely the methods started long before, and although the chairman may change, the old policy does not.

Certainly the work of green committees in these days is far more efficient than in past years. Committeemen seek knowledge and they investigate results of labors in other localities where the soil is similar to that of their own course. It is a rare thing now to find a committee which will be satisfied with any materials but those of tested excellence, but at the same time, any work which is to succeed must have its foundation deep in wisdom and its development adhered to unwaveringly.

Modern Golf Chats

By A. W. Tillinghast

IT has been said that the reputation of a course depends upon the character of its one-shot holes, and while there is much wisdom in this observation, there are other features which either make or break a course. No matter how excellent the distances may be or how fortunate the location of the putting greens, or how cunning the placement of the hazards, if great care is not taken in the building, the course never will be notable. For instance, a putting green which may be most impressive in some country, might be duplicated in another section where it would be without distinction and out of place. This also applies to hazards, and it is of these that I will devote a bit of space this month.

Let us assume that we have found a most excellent spot for a hazard. Without a doubt any one of several types would exact its just penalty, but there must be one distinct type best suited to this particular place. We must not permit the lines of our hazards to clash with the surrounding country.

They may remind us of the houses of the *nouveau riche* in which are to be found in the same rooms a riot of decorations, a lurid Navajo rug quarrelling with the portieres, or a Japanese screen distinctly unfriendly with the Chippendale chair.

So it is on our courses. A rugged, dune-like creation which well might find a place on a seaside course, would be quite out of harmony with gently undulating meadow land. To be sure, the formation in each instance might be similar, but the lines should be different. Each particular locality supplies its own models for mound work, and in designing them the architect ever must keep the surroundings in mind.

Tracts broken up by grassy hollows and mounds are effective and picturesque on inland courses, but along a bleak coast the same formation might be utterly undesirable; in any event, the design would have to be conceived in a more rugged fashion. Often upon some courses we find it desirable to change completely our types where immediate surroundings vary. For instance, one fairway, extending along a valley meadow, might find a hazard area coming to meet it in friendly undulations, but perhaps a few hundred yards distant a gaping quarry hole would have as its neighbors pits of equally severe aspect.

Of course, nothing could be more grotesque than the precise kop-bunkers of other days. Then, no matter where the course happened to be, these coffin-like formations were placed with precision. After a while attempts to imitate Nature were observed more frequently, but even now this inclination is far too infrequent.

In 1911 I planned the course at Shawnee. On the hole which is illustrated in this issue, a considerable area was broken up by grass mounds and hollows. Every effort was made to have them appear like a natural formation, and when they had been thrown up, the workmen were made to walk all over them in order to obliterate any regular lines. This huge grass hazard has proved to be very effective, and I can recommend a similar treatment in any section where it is found desirable to have forbidden ground of considerable extent.

Such mound work is not costly to produce. It is simply a matter of staking out the base lines of the mounds; figuring the proper distances between the bottoms of the finished mounds, and then digging from one to the other, throwing up the earth between the stakes. At first there undoubtedly will be a tendency to get these staked sections too close, and when the various slopes meet, there may be not sufficient room to permit the player to swing his club properly. Of course, the floor between the mound bases should be broken up, too, for it is not intended that the player should be able to play out without difficulty, but at the same

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The Danger of Opening Putting Greens for Play in March

By Peter Lees.

WITH the coming of Spring the Green Committees will soon be preparing for the golfing season, which is fast approaching, and the work of preparing the putting greens and fairways will occupy a large part of their attention.

One of the mistakes frequently made by Green Committees is to open the greens for play in March. More harm can be done in one day at this time than can be rectified in weeks afterward, and many clubs that find their greens in poor shape in the summer could trace the trouble to this source. The weather may be fine and warm during the daytime, but frosts will frequently be experienced at night, and if the grass is subjected to the wear and tear of play in addition to having to resist the weather conditions, it naturally will suffer greatly. After the Winter snows and frosts the surface of the putting green is loose and soft, the greenkeeper not yet having had time to work them up to a firmer condition. If played on at this time the bad effects will be apparent later on.

After his long absence from the game, the golfer is very anxious to get started again, and at the first sign of good weather, he is at the club ready to play. He expects to find the Summer greens with the holes cut and flags in position all ready for use, and does not like the idea of using temporary or "relief" greens. Personally, I recommend these with great diffidence at any time, but in circumstances like the above I think that the golfer ought to bear with the committee and put up with them until such time as the Summer greens may be opened up with no danger of damaging them.

The use of temporary greens will also help the greenkeeper to bring the regular greens to first-class condition, and he would have the knowledge that he ran no risk of spoiling them for the busy season. The results obtained by the use of a little forbearance in the early Spring will be more than repaid by putting greens of superior quality a little later in the season.

Another important point to be considered is that if the greens are not used too early, the grass will recover from the effects of the winter and the young shoots will have become much stronger and better able to withstand the wear and tear of play.

The temporary, or relief greens can be made as near the Summer greens as desired, and are of course on the fairway. They should be on the approach, if possible. The work expended on them will improve this important part of the fairway by truing it for play when the ordinary or Summer green is opened.

At best, golf in March cannot be considered seriously under any circumstances, and this applies particularly to putting, as conditions are all against it.

Spring Renovation Work

L. M.

JUST as soon as the frost is out of the ground and the soil is dry and in good condition, golf clubs should commence the renovation of their courses. It is usually quite safe to figure on starting this work about the 1st of April, but of course it all depends upon the locality and whether the soil is of a sandy, medium or heavy nature.

The chief causes of a worn or poor turf are hard usage, poverty of the soil, the damage done by extremes of temperature, or the want of proper drainage; the result of hard usage and extremes of temperature is shown by the appearance of bare patches; the sign of poverty is a thin turf, and bare patches with moss and stagnant water usually denote faulty drainage.

Some greens will possibly be found in very good condition, with a thick, fine turf, and quite free from weeds. Nevertheless, they should be renovated and strengthened so as to make them better able to withstand a severe summer season and heavy play.

Treating the Putting Greens.

(1) If the greens are infested with earth worms, select a mild, muggy day, when the soil is moist, and apply a good worm eradicator, so as to rid the greens of them before seeding. If the worms are not active, postpone taking them out until wet weather the end of April or May, or when troublesome in the Autumn.

(2) Improve the drainage, if necessary.

(3) Mow the grass quite close, if any growth has started and the grass is long.

Note.—Most clubs have had prepared the year before a sufficient quantity of compost to give all the greens several light top-dressings at the rate of about one load per 200 to 300 super yards (1 cubic yard covering 150 square yards to the depth of a quarter inch), and during the past Fall and Winter have had prepared next year's and the following year's supply. Several good rich compost heaps on a golf course are very essential and important. A compost heap should be made up in layers of about one foot thick, in the following order: (1) The best black soil obtainable; (2) sand; (3) stable manure, leaf mould or humus; or, if for use on a sandy soil course, (1) soil; (2) stable manure, leaf mould or humus. Finish off all heaps with soil.

Compost should be allowed to stand in heaps or pits for about a year; therefore, in starting, make twice as much as is necessary for the first year, and when one heap is used, make another, using the coarse stuff sifted out of the used heap to make the foundation of the new one. The heaps should be stirred up and turned over once or twice a year.

To get humus, dig out peat from river or pond bed, *lime it well* and allow it to stand for at least a year or two. If no deposit is available and you wish to save delay, buy Rex Humus. Make leaf moulds every Fall with soil and leaves, and sometimes add sand.

(4) Apply to all low, wet, sour, heavy greens some pulverized charcoal, at the rate of from 200 to 300 lbs. per green 75 feet square, to purify and sweeten the soil. It should, however, be mixed with sand for heavy soils and applied when the soil is moist and soft and best able to absorb it. Worms do not like charcoal.

(5) With the necessary dressing on hand and already sifted for use, vigorously rake and cross rake the greens with sharp iron rakes, working in the dressing of charcoal and sand, and so as to thoroughly open up the surface soil and allow the young grass later on to penetrate the old turf. The more the existing plants appear to be ruined, short of actually pulling them out by the roots, the better will be the results. The large patches of weeds should be taken out first by hand and the small ones can be scratched out in raking.

(6) The next operation depends entirely upon the soil and conditions. If the soil is sandy or poor or thin, the greens should be thinly top-dressed, to a thickness of about one-quarter to one-half inch, with sifted prepared compost, mixed with some good complete artificial grass manure, and the same worked into the existing turf with birch brooms, at the same time correcting the cuppy places. If the turf is in fairly good condition, one dressing after sowing the seed is sufficient. There is nothing better for a dressing than humus, and its use will give even better results than a compost pile. Enough should be on hand to last for several dressings, as this will be more economical. It is especially useful where much seeding is done as it has the tendency to cause quicker germination.

(7) Sow a mixture of the finest grass seed, especially prepared to suit the soil and climate, at the rate of from one-half bushel to two bushels per green, according to the size of the green and the condition of the existing turf.

(8) Cover the seed not deeper than one quarter inch by applying a thin top-dressing of sifted compost, and work the seed and covering soil into the existing turf with birch brooms or the backs of rakes.

(9) Roll with an ordinary hand roller.

It is usually necessary to close the putting greens for play during Spring renovation work, especially when they need considerable attention and when the soil is heavy and sticky. It is then advisable to play temporary greens for four or five weeks, until the soil and turf is in an improved condition and the young grass has made a start.

After Treatment.—On light, dry soils composts cannot be too freely used, because not only do they add to the fertility of the soil, but also add humus, which tends to keep it cool and conserve the moisture. On all soils it is usually well to apply a very thin top-dressing about the last of May or just before the hot Summer season arrives, and monthly "dustings," watered in so as to give a little protection to the roots of the young grass, and keep the turf strong and healthy, it being known that young grass suffers more from the heat than the cold.

How to Treat the Fair Greens.

Select the important parts—viz., the "lies" and "approaches"—and renovate the weak and thin places as follows:

(1) Apply air-slaked lime at the rate of about 500 to 100 lbs. per acre to all low, sour, wet parts when the soil is thawing out or moist, so that it will disappear quickly.

(2) Tooth-harrow the ground in both directions so as to open up the surface soil.

(3) Sow a mixture of the finest grass seed especially prepared to suit the soil and climate at the rate of from two to six bushels per acre, according to the condition of the existing turf.

(4) Top-dress as many of the "lies" and "approaches" as is possible with a compost or sifted soil mixed with complete artificial fertilizer, covering the seed not deeper than one-quarter inch.

(5) Brush-harrow the covering soil and seed into the existing turf, correcting the cuppy places, and then roll with an ordinary grass roller.

A Few Good Points to Remember.

Don't roll down worm casts on heavy soil greens; it is better to take the worms out with an eradicator. Always keep putting greens free from weeds; water them only in the late afternoons and evenings. Keep the turf nursery in good condition, so as to be able to patch the greens and tees when necessary. Continually repair divot marks and weak places with sifted rich soil and seed mixed together before use.

Never use heavy rollers on clay soil, with the possible exception of once or twice in the Spring season or dry weather.

In making new greens and fairways, always use plenty of manure and humus for the following reasons: Grass in its young state grows very slowly, and is easily damaged by adverse weather; therefore, the quicker it is rushed through the critical period (or, in other words, becomes established) the better. If the ground is well manured and the humus is kept quite close to the surface, the young plants will root straight into it and gather strength generally, which will enable them to come through a period of bad weather, which might easily kill a poorly nourished plant, but it will also enable them to close up quicker.

It is generally admitted that the mortality of all life is greatest during the early period of existence, and that a well-nourished organism is better able to withstand a period of stress than is an ill-nourished weakling.

When there is an occasion to use chemical fertilizers, it is very important to be careful of the quantity. It is very easy to use too much, and an expert should be consulted.

Never buy cheap grass seed. Always use the very best quality, and never experiment with recommendations given by would-be experts or you may be like the man in the fable who tried to please everybody. He pleased nobody and lost his donkey in the bargain.

Qualifications of an Advanced Greenkeeper

By Leonard Macomber

GREENKEEPING is no longer a peaceful occupation. It is a constant warfare throughout the entire season. The greenkeeper is always fighting against pests, grass diseases, weeds, bad drainage, etc.

Modern greenkeeping is not carried out by rule of thumb, but is based on scientific principles and common-sense methods. When applied to greenkeeping, science should be defined as organized common sense, and this is absolutely essential for success. For a greenkeeper to possess a comprehensive knowledge of agrostology, geology, botany, etc., is not necessary. It is apt to prove very confusing, and most always results in rule-of-thumb methods. An elementary scientific knowledge is sometimes useful, but an experienced chemist or botantist having constant practice is far more reliable, supplementing common-sense methods as applied to nature.

There are many people who have an erroneous idea about soil analysis. They think that a chemical analysis of soil will show just how to treat it to increase the crop production. To the average person a chemical analysis of soil means nothing, and usually it is a waste of time and expense, because two soils may have exactly the same analysis chemically and still give different returns in crop yields. The chemist can determine the total amount of the plant food elements in the soil, but he cannot tell how much of this is available for plant use. There are many conditions, other than plant food content, that must be taken into consideration in increasing crop production. An experienced soil chemist, by knowing these conditions, can often give much helpful advice without making an actual analysis. An examination of a sample of the soil and a personal visit to the grounds is far more advisable. There is a place for the chemical analysis of soils, but it requires a knowledge of chemistry to interpret it, and it is not worth while for a greenkeeper to acquire it.

The same can be said of agrostology except that an elementary knowledge is quite often worse than no knowledge at all. For example, we quite frequently find greenkeepers or chairmen of committees prescribing mixtures of grass seeds when their experience has only covered a period of a few months or years. Some have made various growing tests of seeds and mixtures, hardly ever trying the same mixture twice under different weather conditions, and then form conclusions that are far from correct. Others have heard so-called experts say what varieties and proportions of same are best suited for certain local conditions and soil, and immediately they work in the wrong direction at the expense of their club when conditions are in all probability different.

If committees and greenkeepers as a whole would only place more confidence in the ability of recognized turf experts and seedsmen, who make the production of golfing turf a specialty, to supply the correct mixtures of seed and fertilizer, they would obtain far better results.

There are very few greenkeepers, golf architects, or committeemen who know the first thing about grass seed, and yet how many are willing to prescribe mixtures and to identify with a naked eye sub-varieties of seeds when it is often absolutely impossible for the greatest seed expert in the world to do so with a microscope?

For a greenkeeper to be a success, he must know how to handle his men, his committee, his soil, his resources, and last, but not least, he must love the soil —his soil; learn to understand it and then the soil will respond to its utmost. If you take two men and give them adjoining plots of ground equal in every way, the same seeds, fertilizers, tools, etc., the man who loves the soil will get better results than the man who simply regards it as a producing agency to satisfy his needs.

Had I But Known

Had I but known when I became a golfer
The countless clubs that I was doomed to break;
Had I but known what said each jeering scoffer,
Another line it might have made me take.
Had I but known.

Had I but known, when buying balls by dozens
And, mark you, I'd fancy for the best,
I might have listened to my aunts and cousins,
And laid my golf clubs in a place of rest.
Had I but known.

Had I but known, when crowds of friends admiring
My noted drive had, wondering, come to see,
And cast long looks, expectant and inquiring,
That I should miss the ball and eke the tee.
Had I but known.

Had I but known the bunkers so enticing,
The putts I miss, too short, in fact to name,
The "heeling," "toeing," "topping" and the "slicing";
I think—I think I'd—still have played the game.

Speeding Golf Turf Production

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and sowed at the rate of 600 lbs. per acre on the greens and 400 lbs. per acre on the fair greens. The results simply beggared description. Within six weeks of the date of sowing, the greens and fair greens were clothed with a turf which made that beautiful natural turf at St. Andrews look quite shabby in comparison—but alas! the great European war broke out—work on the club houses was stopped and in consequence, the courses were not formally opened and my victory proved a barren one.

The mixtures used on these courses were based on a careful analysis of the famous Silloth turf of Scotland. The seeds were taken from our choicest stocks, cleaned and re-cleaned up to the highest point of purity and mixed with the utmost care, but as they produce a magnificent turf in such a short period of time, they proved to be both cheap and economical when sown at the rate of 600 lbs. per acre on the green and 400 lbs. per acre on the fair greens, making the cost of seeding $198 and $116, respectively per acre.

In the United States, such heavy and apparently costly sowings have not yet been attempted, but as soon as the green committees of new golf courses realize that the splendid golfing turf which has made the Detroit, Old Elm and Mayfield Golf Courses famous throughout the country, is not only due to the use of the very finest grass seeds, but also to the heavy rate of sowing—they will soon fall into line and the system will be adopted generally. The advantages of heavy sowing are as follows:

1. The turf is produced in a minimum space of time.
2. The grass plants being crowded together from the very start afford each other mutual protection from cold, searching winds and the hot sun—and being checked to an extent in their lateral growth, seek relief in deep rooting, with the result that a dwarf, fibrous, hardy, drought resisting turf is produced.
3. The chance of failure on a thin patchy turf is eliminated.

A first-class golfing turf should be so thick and fibrous that it is impossible for the ball to fall through it and rest on the hard ground, and this can only be achieved by sowing dwarf matting grasses thickly.

If the seed is sown too thinly, each little plant has to stand for itself, and unless the seasons are abnormally favorable, the turf never closes up. On the contrary, it usually gets thinner and thinner, with the result that before long the ball falls through the turf and rests on the hard ground. There is little or no pleasure in playing a ball off hard-baked ground, as such a stroke is apt to break the club or jar one's wrists. It can be avoided by sowing the fairways with a correct mixture of seed at the rate of 300 to 400 lbs. per acre, and surely it is economical to do so, because when all is said and done, golf courses are classified largely by the quality of the turf found on the greens and fairways.

The average golfer in charge of the construction of a new course scarcely realizes the actual saving which will result from the shortening of the time required to get the turf ready for play. A specific example will bring this out more clearly. Suppose the capital stock of the club to be $50,000. The interest on this will be, at 5 per cent., $2,500 per year. To this must be added cost of upkeep, rent, loss of revenue, etc. In the aggregate this can easily amount to $10,000 a year. In other words the course costs the club from $250 to $1,000 a month while the turf is maturing and this is all dead loss. One can easily figure out just how much money can be saved in his own case if his course can be made ready for play in several months shorter time than the ordinary. Really high-class turf can be had from the start and the resultant money saving is well worth the consideration of a new club.

Modern Golf Chats

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time he should be given every opportunity for getting his club back without hindrance.

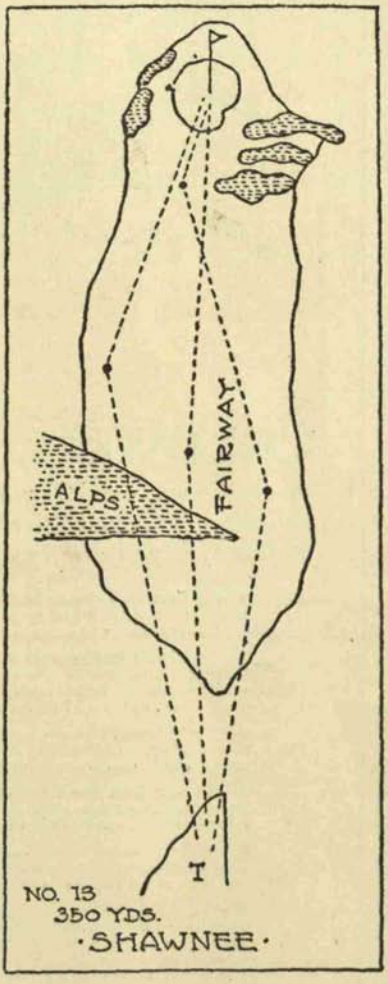
The question of surface drainage must be considered, and the whole floor of a similar area must be modeled in such a way as to include the natural drainage from one end to the other, and although immediately after the first rough work is completed, and before seeding, there may appear to be moist spots after a rain, these should cause no apprehension, for the water will be carried away more readily when all is covered by grass.

The usual attempt at mound work usually results in horribly symmetrical "chocolate drops," with an arrangement which suggests the display in a confectioner's shop window. Yet it requires no more work and no more expense to build along natural and effective lines. There is a great deal of horse sense in golf architecture, after all, and imagination, too.

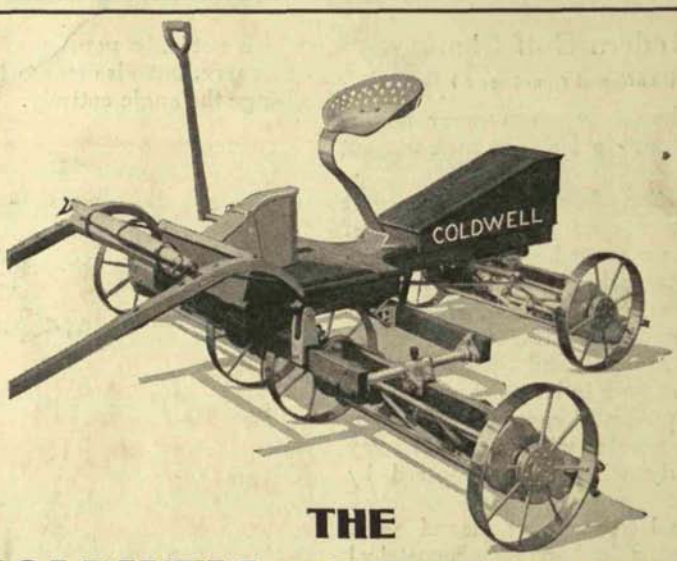
An up-to-date variation of solid mound work. Here the rough sides have been turfed, but the sand has been introduced to relieve the monotony and tufted grass planted in an attempt to imitate dune growth. Lyme grass is admirable for this purpose.

The Shawnee Course was laid out by the writer some five years ago. In the hole represented the area marked "Alps" is broken up by rugged mound work, and presents a very stiff carry from the teeing-ground. It will be observed that one route to the hole finds nothing to be carried at all, but in taking this road the conservative player requires three strokes before the green is reached in safety.

A unique feature is the diagonal teeing-ground, one hundred feet in length, which not only permits of lengthening the carry, but also makes it possible to change the angle entirely.



From the sketch it may seem that a long second from the fairway opposite the Alpinization should find no great difficulty in holding the green after successfully clearing the guarding pits, but it must be remembered that the slope to the flag from this angle makes the effort dangerous. The approach should come "straight-on" or, better still, slightly from the left. If a long, wild drive clears the mound district, which is very unlikely, the rough on that side is troublesome.



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COLDWELL "THREESOME"

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1—All gears and axles of drive wheels are run in dust proof grease cases, which only need filling once in four or five months. This means easy draft, long life to the machine and a great saving of time.

2—The **Back Rollers** are made in three sections, which insures against tearing the lawn when turning circles. These rollers are each provided with bronze bearings, turning on a hollow grease-filled shaft. This shaft, once filled, needs no further attention for months.

3—The **Drive Wheels** have malleable hubs, steel spokes, wrought-iron rims and are made fast to shafts which turn on ball bearings inside the grease case. (All wear easily taken up from inside of case.)

4—**No springs are necessary** to keep the back roller from jumping up, as the Lawn Mowers are swung from the main frame by large friction surface hangers, which hold it down.

5—A single lever at the operator's right enables him to lift all three cutting knives free from the ground at once. It also permits him to throw out of gear all three revolving cutters without leaving his seat.

6—The weight of the super-structure and operator is evenly divided over the three Lawn Mowers. The combination of the carrying frame and a very simple draw rod mechanism makes one of the most desirable features of this machine, and it is this combination that makes absolutely positive the accurate position of the rear machine relative to the two front machines, insuring at all times, and under all conditions, the proper overlapping of the cuts. This valuable feature is found only in this machine.

This style of machine is designed for cutting wide swaths on grounds that are settled and dry, also where rolling and fine cutting are not the first consideration. On fine lawns where the turf is right and where pride is taken in having fine cutting and a beautiful velvety surface, free from horse marking, streaks, etc., there is only one type to use, that is the motor-driven Lawn Mower, which rolls the lawn every time it is cut. We make several varieties of this type, including both the "Walk" and "Ride" types, circulars of which we will be pleased to furnish on application.

COLDWELL LAWN MOWER CO. NEWBURGH, N.Y.