

THE GOLF COURSE

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

Courses of Today

By OBSERVER

OF course my name is not "Observer," but inasmuch as the habit of looking at things in a very critical way is one which has clung to me all my life, I think that I may find an ample excuse for assuming it as a *nom de guerre* over the series of articles which I have been requested to write for THE GOLF COURSE.

I have seen golf courses of our first vintage gradually change or be supplanted by new ones of modern type. At first I was rather inclined to believe that modern construction was driving us to an extreme, but as I schooled myself to analyze new holes, new greens, new hazards, and new types of fairways, I began to realize that modern course construction was not a madness or a fad, but rather something which added considerably to the game of golf.

Twisted fairways, dog-leg holes, diagonal hazards and putting greens of unusual shape, all appealed to me at first as expensive features which scarcely were warranted.

"All well enough for the ultra-scientific player or the scratch man," was the comment which was heard on many sides. And indeed it seemed as though this criticism was not very wide of the truth until, becoming an observer, I be-

gan to realize that with the building of a thoroughly modern course the game of golf was taking a distinct step forward and upward to a plane which must place it on the heights of permanency and ever above the grade of an interesting, alluring fad.

After becoming an observer and, if I may say so, a real student of the courses of today, I found a new pleasure in playing the game, and certainly a far greater pleasure in anticipating the playing of certain holes which I had studied. In past years there was the rather monotonous playing of certain holes day after day. Possibly the changing wind was a great factor in changing the character of a hole, but aside from this feature always we played from the same small teeing ground over (or, alas! into) the same precise bunker, facing a mathematically correct fairway and to an equally mathematically precise, featureless green. To be sure, I found pleasure in this, but certainly none which may be compared with the pleasure of playing an ever-changing hole as provided by modern golf architecture.

Large teeing grounds and several on each hole have helped matters considerably. Teeing grounds of today are

(Continued on Page 9)

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R. O. SINCLAIRE, *Editor*

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WE trust this year that we will find fewer changes than usual in the personnel of Green Committees.

A new chairman of a Green Committee means, in too many instances, the adoption of different policies and methods than those favored by the predecessor and this in most cases proves disastrous to the attainment of the best results.

Just a few days ago we received an interesting letter regarding this matter from an official of a prominent Club and the sentiments he expressed struck us very forcibly. We do not believe they could well be disputed.

This gentleman's ideas were in brief that a club should, after careful deliberation, decide on a policy and carry it thru as completely as possible. If Architectural changes are contemplated, a first class Golf Architect should be consulted and his plans followed to the letter. If, on the other hand, the problem confronting the Club has to do merely with the improvement of turf conditions, a specialist along these lines should be sought and his advice just as carefully adhered to. Once sure of being on the right track the committee in charge should never deviate from the adopted policy unless it is conclusively proven after a thorough trial that the methods being employed are wrong.

Many members of a club fail to show the proper amount of patience—they are constantly complaining to the Green Committee of things they often know nothing about and it is no wonder that the average Chairman considers his job a thankless one. Would, that this class of members, known in the Club as "Kickers," could wake up to their own responsibility for much that goes wrong. One among their number is often purposely chosen to act on a committee, and tho this is doubtless an act of satisfaction to those who have reaped more than their share of blame, it is nevertheless a foolish procedure, for the "Kicker" is seldom qualified for the position wished upon him.

It is gratifying to note that clubs are gradually overcoming the fault of choosing a committeeman simply because he happens to be a popular Club member, or perhaps has more leisure time than others. It is far better to appoint a man who knows something of the subject to be dealt with, even if he cannot devote all the time that might be desired to the duties of his office.

If it is necessary to replace the Chairman of a Green Committee, he should be chosen from among the members of the committee who have worked along with the retiring Chairman and is therefore familiar with his methods and the general policy which is being carried out. Even if this policy is not the very best one imaginable, it is usually far better to cling to it than to keep constantly changing from year to year and never have a really definite idea of the object to be attained.

Not only is it necessary for your Greenkeeper to be efficient, but he must know what is wanted of him and should not be handicapped by contradictory orders from several members of a committee not in harmony or a newly appointed Chairman each year, who has totally different ideas than his predecessor.

Shall a Professional Assume Greenkeeping Cares?

IS it more satisfactory for a Golf Club to employ both a Professional and Greenkeeper, or to put one man in charge of the combined duties?

This is a question on which Club Committees hold widely different views, based of course on their own good or bad fortune with either plan. We think the topic worthy of discussion, and have been requested to give our ideas by a "Golf Course" reader, who in acting as a Chairman has just decided the matter for himself.

To answer the question in a few words—it all depends on the individual or individuals employed, though nowadays the larger Clubs find it necessary to have capable men in each position. This system usually works out far better.

The professional's duties are many, and if attended to properly will leave no time for greenkeeping cares, especially during the seasons of the year when the condition of a Golf Course needs attention most. A good professional is a good instructor, and his time is pretty well filled with giving lessons, in fact, at many clubs he is forced to employ an assistant, in order to meet the demand for instructions by club members.

In addition to teaching, a professional should keep a tidy shop with an attractive stock of clubs and balls, and have facilities of repairing clubs promptly, and cleaning them regularly when this is desired. Many professionals lose much profit by not attending to their customer's wants, and neglect of the workshop.

Besides the above duties, the professional is frequently asked to act as starter and lend his help in connection

with weekly and other tournaments, also being privileged at some clubs to run off sweepstake competitions for his own profit, derived from the sale of balls. The finest golf players are not always the most handy professionals, since much of their time is occupied in attending open tournaments in different parts of the country, but many clubs prefer a prominent tournament player to a stay-at-home. We merely mention the above to emphasize the fact that the pro. has plenty to attend to without assuming responsibility for the condition of the course. We know a few men who attend in a capable way to the duties of professional and greenkeeper, but they are certainly in the minority.

Up-to-date greenkeeping is of such importance that it should be considered as a department all by itself, and a club usually saves money in the long run by paying a liberal salary to a really efficient greenkeeper. Good men in this line are scarce today, owing to the great increase in the number of golf courses, and can demand much larger wages than was the case a few years ago.

Many clubs cannot afford to pay high salaries to both professional and greenkeeper, and these are the clubs we would advise to seek out one good man to fill both positions, rather than to employ two men of mediocre ability. At a small club with a comparatively small membership, fewer demands are made on a professional, and his time is not usually so completely taken up, in giving instructions, etc. It follows, therefore, that he has more opportunity to study turf conditions, and we know many professionals in such positions

who become quite proficient in green-keeping work.

There are of course exceptions to all rules, but speaking generally we would advise the hiring of two good men where this can be afforded, or one good man rather than two of questionable ability, and lacking in experience.

If possible, the supervision of the game should be kept entirely separate from the supervision of the grounds. Neither the Professional nor Greenkeeper should receive instructions from the other, but each take orders directly from the Golf Committee and Grounds Committee respectively. A bright boy should also be chosen from among the older caddies to act as Caddy Master, and relieve the Professional of this detail.

It is impossible to name any set scale of wages to be paid the professional and greenkeeper, since conditions vary so much at different clubs.

The topnotch professional depends largely on the privileges attached to the position for his income, and though only a modest salary be paid, a tidy sum is realized by giving lessons and the sale of golf clubs, balls, etc., etc. Then, too, certain professionals who are able to compete in open tournaments whenever they like pick up considerable prize money during a year.

The greenkeeper has much less opportunity to realize anything above his salary, but, as stated previously, the wages paid him are steadily increasing and some clubs are employing men with the understanding that when called upon they are at liberty to visit other clubs or estates where expert advice is sought and receive, of course, a liberal fee for this.

The professionals and greenkeepers who through natural ability and conscientious work have made a reputation for themselves are being well paid today and their prospects are constantly improving.

Lime and Manure

WE had begun to think that there was no longer any necessity of warning Green Committees of the folly of mixing lime and manure or of liming soil which has been recently covered with animal manure of any kind. However, visits to a considerable number of clubs in the past few months have demonstrated that this mistake is still made with alarming frequency.

If lime is mixed with animal manure, it promptly proceeds to convert the nitrogen into gaseous ammonia, which, of course, at once escapes into the air. This naturally wastes much of the value of the manure.

The same mistake is also made in the construction of compost piles. If lime is used in compost piles, humus should be used to supply the organic matter necessary.

For the same reason, lime should not be mixed with sulphate of ammonia or materials containing it.

JIMMIE is a greenkeeper of small stature, but with a big brain. He had been instructed by the Chairman of the Green Committee to make a teeing ground by planting yarrow exclusively. The yarrow had made its appearance on the putting greens in many spots, and after Jimmie had removed the objectionable plants, he collected them as directed. The experiment was a success, and Jimmie explained his methods as follows:

"Now, you see," he said, as he gravely Fletcherized a cheek full of fine cut, "this yarrow grows easy enough where I don't want it, but it's so cussed contrary that I saw that it wouldn't grow where I did want it. I figured that the fool thing spent most of its time choking out my good grass on the greens, so I just fooled that doggone yarrow by slappin' in with it a little grass seed to make it think that I was tryin' to make a green."

Now, when you consider a theory such as Jimmie had, it comes mighty close to being common sense. In any event, it worked.

The Cost of Golf Course Construction

(Continued from December)

V

THE FAIRWAYS

THE ideal fairway would be built on the same elaborate plan as the putting greens, but the expense of such a method would make the cost of the course prohibitive, except in the most exceptional instances. In some cases it has been necessary to practically build large sections of land, especially in one or two seaside courses and in a few which have been built in very marshy country. Here, of course, the character of the soil may be determined largely in advance and fairways built in the most approved way. Ordinarily, however, the general method for the construction of the fairways is the simple one of plowing, harrowing, smoothing and rolling.

After the plowing and preliminary harrowing to break up the clods has been done, lime should be applied in amounts suited to requirements in various parts of the course. An average of from one to two tons to the acre will be found necessary in most parts of the country. After spreading this dressing, the ground should be again harrowed so as to thoroughly incorporate the lime into the soil. If time is available the fairway should be allowed to rest for a time with the object of permitting as many weed-seeds to germinate as possible. Then go over the ground again with the harrow, thus uprooting the weeds and exposing them to the action of the sun, which will kill them. If time can be spared, this should be done a couple of times at least, or more if practicable. In hot

weather, no more effective method of removing weeds from new ground can be used. In a very wet season, this way is not always successful, but in all events it should be tried. The aeration given to the soil will be invaluable.

The next thing is to condition and fertilize the soil. If it can be afforded, a dressing of natural humus, from three to ten tons to the acre, should be applied and thoroughly disked in. Three tons of humus to the acre will add about 1 per cent. to the humus content of the soil. In most cases humus on the fairways will be found too expensive and cattle or horse manure will have to be used. This should be used in as large quantities as can be afforded. The best method is to pulverize the manure as finely as possible, spread it over the ground and harrow in. The more thoroughly it is harrowed in the better will be the ultimate results.

It is useless to put the manure or humus too deep into the soil, despite the oft expressed opinion. If put too far down the grass roots will not receive any of the benefits. Grass is a shallow rooted plant and seldom penetrates more than six inches. The best depth is the top four inches, the material being thoroughly mixed with the soil.

The fairways will usually require some chemical fertilizer, and this should be procured from a reliable grass seed firm. Farm fertilizers should not be used, as they are usually rich in phosphoric acid and potash, which

encourage clovers and cause coarse growth. Grass needs nitrogen and fertilizers intended especially for use on grass are therefore made up with nitrogenous compounds. It is preferable to allow a seed firm to suggest the best fertilizer rather than to attempt to do it oneself, but as a rule about 200 to 500 pounds to the acre is used.

On very heavy soils as much sand as possible should be used in order to increase the porosity of the soil and permit better ventilation. Improved growth will always follow the use of a suitable quantity of sand on soils which have a tendency to bake hard and it should be used on all portions of the fairways where the turf is expected to be first-class.

It is difficult to give a satisfactory estimate of the cost of fairway construction owing to the great variations in soils and the diverse opinions regarding how good the final results should be. As far as plowing is concerned, assuming that the soil is in average condition, the cost will be from five to ten dollars to the acre. If the ground is very easy to plow it may be far less than these amounts. A team should be able to plow at least an acre a day at the very minimum. Experiment will soon show how much the teams will be able to do and the cost of plowing figured in that way. Local farmers will be able to give valuable advice on this point and should be consulted when planning this part of the work.

Disk harrowing will have to be done several times and the necessary amount will cost from \$2.50 to \$4.00 to the acre. A team can disk up about five acres per day, providing none of the area is covered more than once. The

latter diskings will not cost as much as the initial one.

As far as smoothing is concerned, teams can cover more than ten acres in a day and the cost per acre will therefore be around 50 cents. Manuring will cost somewhere around \$50.00 to the acre or perhaps less if less manure is used, and less trouble is taken.

The cost of seed and seeding will be about \$60 to \$75 or more to the acre.

All told, the cost of fairway construction will be from \$400 to \$1,000 each or from \$7,500 to \$20,000 for an eighteen-hole layout. Exceptional local conditions or lavish expenditures with the idea of getting the best possible results regardless of expense may run these figures up out of sight.

VI

THE TEES

In constructing the tees most of the earth necessary will be obtained from nearby putting greens. They should be made as large as possible, both in width and in length. Often the architect will make it possible to entirely change the character of a short hole by using an especially large tee, so that the plates may be changed from one end to the other and the hole approached from different angles. Occasionally a long tee will be placed diagonally with this same object in view. If the tees are of ample size and the plates moved about frequently they will be subject to far less wear and can be kept in good condition throughout the season.

Practically all the cost of building the tees represents the labor of shaping them, top-dressing with good soil, seeding and sodding. The various opera-

tions are rather difficult to separate. Tees will cost from \$40 to \$75 each, depending principally on their location.

VII THE HAZARDS

It is also difficult to place any exact figure on the cost of the hazards owing to the fact that many of them are constructed somewhat incidental to the other work (from the standpoint of cost) and also because a considerable number of them are often left until following seasons so that the ground may have a chance to settle and "find itself." In all, however, the cost of the average number of hazards on the modern eighteen-hole course will run from \$1,000 up to perhaps \$3,000 or \$4,000. This includes excavating, mounds, sodding, draining, etc. The hazards should be drained with particular care in order to prevent water from collecting in them.

(To be continued)

The Devil's Disciple

The Golfer stood in his room at night,
Pitching balls to a padded chair.

He could work his mashie there all right,

But on the links he was in despair;

'Twas top and scloff,

Till a horse would laugh,

And the best he'd get was a measly half.

"I never shall learn this game," quoth he.

"And I'd sell my soul for a seventy-three!"

No sooner said, on this fateful night,
Than the Devil walked in, with a bow polite,

"Pledge me your soul, my friend," said he,

"And tomorrow you'll shoot a seventy-three.

Don't think at all
Of stance or grip;
Just swat the ball
And let her rip.

Leave it to me: I'll turn the trick;
You pin your faith to your Uncle
Nick."

"Done!" said the Golfer—"gladly,
too."

"You're on," said the Devil. "Good-
night to you."

Next day, when "Mac" drove off the
tee

For the first long hole, he was down in
three;

And every other, or near or far,
Was played, somehow, in exactly par.

He sliced, he hooked, he scloffed, he
topped,

But somehow or other he always
copped.

If he hit a bunker he blundered o'er
And rolled to the pin for an easy four.

Over the green, or short, or up,

He trickled the next one to the cup.

Once, when he pulled to a bunker tall,
Which promised to grab and hold his
ball,

A caddie said, as he rubbed his eye,
That a hoof had caromed the pellet by;

But none suspected, who saw it kick,

'Twas the cloven hoof of your Uncle
Nick.

Hole by hole,

To the eighteenth goal,

Walked the man who had sold his soul.

Drive and iron, and pitch and poke,

Till, matching his card, his friends
went broke.

For, adding his score, they found that
he

Had shot the course in a seventy-three!

Whether his bargain he ought to rue
Depends of course on the point of view.

At least "Mac's" happier now by far
Than when he was eighteen over par.

He never worries about the trade,

Or ever gives it a thought at all,

And the only sign of the pact he made
Is a puff of smoke where he hits the

ball.

Resting the Greens

PUTTING greens will not suffer greatly if played upon during the winter months when they are frozen, provided the snow is not swept from them too often. The snow acts as a blanket which protects the grass from sudden changes in temperature. Although it would be better from every point of view to stop play through the winter, we suppose golfers will continue to insist on playing their favorite game regardless of weather. Putting greens when in a frozen or semi-frozen condition cannot be played upon with any great degree of accuracy, and, in addition, the grass is unable to repair by growth the necessary wear.

In all events, the greens should be laid up at the first sign of spring. As soon as the frost begins to come out of the ground, the surface becomes soft and muddy, and if subjected to the wear and tear of play will be severely damaged. Then, too, the greenkeeper will require some time to dress and seed and to remove the worms, and in order to do his work properly should not be interfered with by early play.

The wet, muddy condition of the greens in the spring is due in large part to the movements of the worms. These tend to loosen the soil and bring to the surface a surprising amount of soil. The only way to remove them is through the use of a good worm eradicating fertilizer, which will feed the turf as well as bring to the surface all the worms. It will not do to sweep away the worm-casts, as soil of much value is lost and the turf suffers from being smeared over with slimy mud. A roller is out of the question because the casts either stick to it or are pressed down hard to smother out the finer grasses. If the worms are taken out properly, it will be some time before any further attention will be required.

Heel Prints

THERE is nothing which hurts a good green more than the punching of the small heels frequently worn by women. Of course, the woman who golfs to any extent is properly shod with low, flat heels, but the lady who walks out on the course occasionally to follow a match or practice putting for a while, unthinkingly wears high heels, which leave their marks after every step.

It is almost a waste of time to post warning notices, for the lady who takes to golf but occasionally seldom bothers her head about silly golf notices. It is better to instruct the caddie master to keep a sharp lookout for the heels and hand a specially printed card to the innocent offender.

Quantity of Seed to Sow

IN the old country, with its perfect climate for grass growing, a sowing of one ounce of seed per square yard, or one bushel of 25 pounds per 400 square yards, will produce a close, dense turf in from six to twelve months, according to the season, but this result cannot be obtained in countries or districts where the growing season is comparatively short, the summer very hot and the winter long and extremely cold; so we recommend that the seed be sown at the rate of 2 ounces per square yard, or 2 bushels per 400 square yards, in the United States and the Dominion of Canada, where these conditions prevail.

Lawns or fair greens should be sown at the rate of from 8 to 16 bushels per acre.

For renovating old turf, the seed should be sown at quarter or half rate, according to its condition.

A full turf is formed by the tangled growth of a few comparatively large grass plants or a multitude of small ones, and, in consequence, it stands to reason that the more seed that is sown on a given area the quicker will be the results.

Greenkeeping Notes for the Late Winter Months

IF not already done, now is the time to paint and repair tee boxes, hole and tee markers. The various implements should be examined and put into shape for the Spring. As a rule, most of the machinery around a golf course will stand a good cleaning and oiling. If any parts are broken or found to be defective they should be replaced, and if the machines are in very bad shape they should be sent to the factory or at least to a good local repairman.

Now is the time to order all Spring seeds, humus and fertilizers. If not done at once the club runs the risk of being forced to put up with the delays in shipment which are inevitable in the early Spring and will suffer on this account. Plenty of time should be allowed for shipments to be made and also for transportation. Wise Green Committees will not lose a single moment from now on in placing orders for the necessary materials.

Much valuable time will be saved later on if materials such as sand are hauled out to the bunkers where needed. It is also a good idea to manure any bare spots with stable manure or compost and allow to stand until the weather opens up.

Many clubs did very little work on their courses last season, and the results of this policy will be very noticeable when warm weather comes. An early start and sufficient materials this Spring will repair much of the damage caused by the neglect of the past year.

With the near approach of Spring it behooves the greenkeeper to be on the lookout for weeds. If these are removed as fast as noticed, a great deal of trouble later on will be avoided. Weeds are often a sign of poverty or neglect and if this is found to be the case, steps should be taken to eliminate the cause.

Lime is of great value of course for correcting acid conditions in the soil, providing the causes of the acidity are looked after before applying it. It breaks up and changes the structure of the clay particles, and improves the drainage. In heavy clay soils, such as are found in the neighborhood of Chicago, investigation by the different clubs has shown that lime may be safely applied in the form of air or water-slacked lime, or by powdered limestones and marls. The experience of these clubs has proved that in no case should the variety known as land plaster be used. It does not neutralize acidity and it has a tendency to still further compact the clay soil.

Courses of Today

(Continued from Page 1)

considered huge as compared with the tiny platforms we used to drive from. The diagonal pit which has to be encountered presents an optional carry which the bunkers, dead across the course of other days, failed to provide. Now I know that if I succeed in carrying the hazard at a point where my best effort should take me, my reward is well worthy of that effort.

I know, too, that if my shots are placed properly the modern green will surely offer an inviting approach. In past years golf did not provide this finesse, and I find a new charm in playing over a thoroughly modern course.

I realize that I am not alone in my opinion. Many other humble players freely admit that they enjoy their play nowadays far more than they used to, and these very men are those who were prone to smile indulgently when modern golf construction was mentioned only a few years back.

Now, while I am sure of my own appreciation of the benefits of up-to-date courses, I am not at all sure that every man who swings a club has been so observant as myself. I recall a case of

only two years ago. It was my privilege to be one of several gentlemen who walked over a course which had just been laid out by one of the best known architects, and with us happened to be the representative of a prominent sporting goods house. Evidently he felt obliged to express an opinion, but, unfortunately, he picked out one of the best holes on the course upon which to direct his observation. I was amazed upon hearing his comments, and curiously enough the very feature which he criticized as undesirable and badly placed was brought to my notice, and as an observer I felt that he was wrong; that this very feature was that about which a very excellent hole had been constructed. I have always remembered that criticism of the golf club salesman, and today I know that he was wrong, for that same hole, after considerable test, remains unchanged, and certainly it is one of the most interesting of the collection.

I still am an observer; the garrulous golf salesman is still peddling clubs, and the man who laid out the hole is still laying out courses.

It has been my privilege to talk with the members of many green committees and they have freely discussed their successes with pardonable pride, and for the most part they have freely admitted their errors. I found it interesting to keep the notes of these discussions and these notes will provide themes for subsequent articles in *THE GOLF COURSE*. Our green committees are those who have the future of golf in their hands. Golf in America will be excellent or mediocre to exactly the same extent as our courses may be good, indifferent or bad. Gradually these men are becoming observers and students of the game. After a few years of grumbling from members who found little pleasure in playing their home courses after visiting others, the green committees found it necessary to investigate and study conditions. Once started in this they have found keen enjoy-

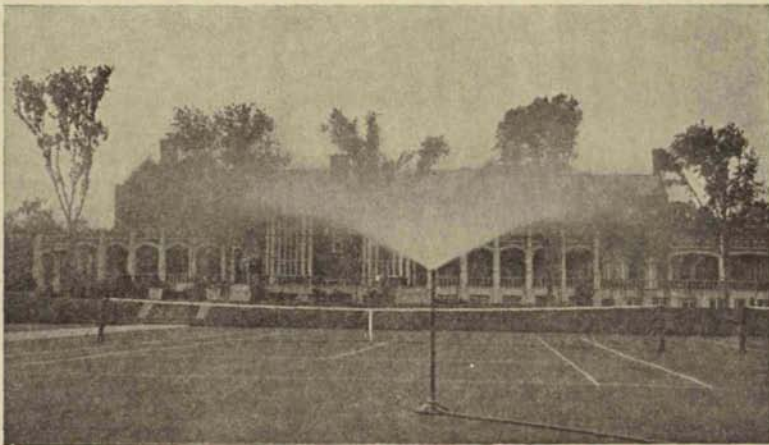
ment and satisfaction in it, and for the most part American green committees are possessed of but a single thought, to provide for their members courses as near perfection as possibly may be. And I have observed that the players in general are becoming very analytical, too. It is surprising to find so much wisdom often expressed by those who play a comparatively inferior game. They may not be able to play in par figures, but they always have par figures to play for in these days of graded carries. No longer are they forced to contend with obligatory efforts which really were quite beyond their powers. Yet the holes of today are far more exacting when attempted by scratch players. In following articles I shall attempt an explanation of why the sufferer today finds harder courses less exacting to himself. In this first article the intention only has been to show that the observing ones really have appreciated the vast difference between the courses of the present and most of those completed only five years ago. The rank and file know in their hearts that the new courses are better and more interesting, and to some extent they are analyzing the new holes to determine the reason. Almost to a man they will tell you that turf is of far better quality than of old. They will tell you, too, that some of the boldly undulating greens of the modern course prove vastly more interesting than the billiard-like greens of other days. They accept these improvements as the just due of the golfer who has labored to improve his game and incidentally paid his dues in a club whose course should improve with the years, yet how few give the observing, studious green committeemen their just due! Volumes might be written of modern golf and modern courses, but comparatively few players would read it. As *THE GOLF COURSE* is devoted principally to members of green committees, it is likely that if the Observer's observations are directed principally to them they may be received with greater sympathy.

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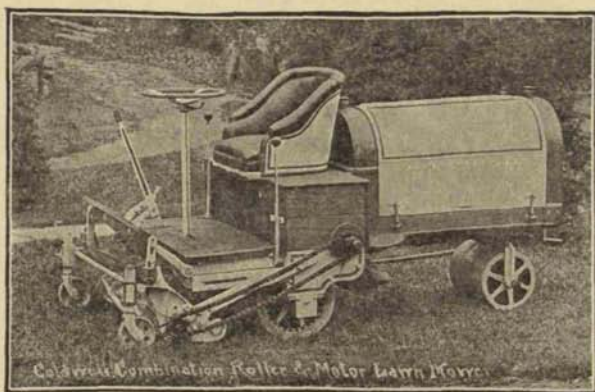
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