MARCH, 1929

"Beautiful Turf From Tee to Green"

For the Finest Turf Sow Bent Grasses

Sow Bent on Your Fairways and Lawns! Because of the extreme fineness and beauty of turf produced from Bent Seed we recommend the use of a certain percentage of Bent in all mixtures for Fairways and Lawns. Its superiority for use on golf courses, especially the putting greens, has long been recognized.

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Grass Seed

of Known Quality

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Special prices on above, or any other turf producing grasses, upon request.

Special Putting Green Bent Formula
Consists of imported and domestic grass seeds of the highest quality, that will produce a fine uniform and enduring turf.

<table>
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<th>Weight</th>
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<td>10 lbs.</td>
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Standard Putting Green Formula

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<td>100 lbs.</td>
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Superfine Fairway Formula (with Bent)
In preparing formula, which includes Bent seed, we adapt it to your conditions so a uniform and enduring turf is secured.

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Fairway Formula, Fine Quality

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Special formulas for Tees, Rough, Bankers, Polo Fields, Airports, Lawns, upon request.

Remember: All our seeds are of the highest quality, obtained direct from the most reliable sources of supply and are botanically true to name. All seeds are new and are cleaned and re-cleaned until they are brought up to the highest possible state of purity and germination; special care being given to the elimination of weed seeds.

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. . . . but, the ultimate cost over a given period is an entirely different thing.

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EVANSTON, ILL. NEW YORK, N. Y.
THE outstanding paper of the series delivered at the annual meeting of the Green Section held in New York in January last was given by Doctor John Monteith, Jr. Dr. Monteith is well known to the turf-maintenance world as a plant pathologist and specialist in the control of turf diseases. In this paper he outlined the scope and results of two years of experimental work in the control of brown-patch by the use of lime. In experimental plats treated with ground limestone at the rate of one ton to the acre (roughly five pounds per 100 square feet of turf) the disease failed to develop whereas unlimed turf in immediate proximity to the limed turf was virtually wiped out by the disease. The Doctor's address was well illustrated by a comprehensive series of lantern slides. Needless to say the paper made a profound impression upon the gathering of turf enthusiasts present at the meetings. It would appear, after several years of intense misery with the brown-patch scourge, culminating in the debacle of 1928 when almost all the golf courses in the East were rendered hors de combat by this disease, that relief is in sight and incidentally by the simplest of methods, namely the application of ordinary ground limestone.

While the first reaction to Monteith's work will be a feeling of intense relief in the thought that brown-patch is at last in the way of being conquered, there is nevertheless a much deeper significance attached to this particular piece of research than is readily apparent to the casual observer. I refer to the value of lime in the turf-maintenance scheme aside from its value in controlling disease, and in order to bring out this point clearly it will be necessary to review the history of greenkeeping during the last 20 years.

That period in the history of American greenkeeping prior to 1920 has been facetiously referred to by the cynically inclined as the "bone meal" or "lime" era. During this period much lime was used on golf courses and in fact the seasoned greenkeeper applied it to the turf as a matter of course just as he applied
manure, fertilizers, etc. With the advent of the Green Section and the subsequent era of intensive turf research at Washington, the use of lime was discouraged by the technical fraternity for good and sufficient reasons. In the first place it was found that the application of lime encouraged the growth of clover in fine turf and since most golf courses were highly desirous of ridding their greens of this growth they ceased the application of lime. Further research showed that lime encouraged the growth of certain weeds which was again a good and sufficient reason for discontinuing its use. Then, as time went on, it was found that the lime already present in the turf could be gradually eliminated from the soil by the use of ammonium sulfate, that this material was a very good fertilizer for turf, and that the bent grasses grew very well in soil rendered acid by the use of the sulfate. Thus came into being the “acid soil” or “ammonium sulfate” era of American greenkeeping, during which period the application of lime to American golf courses became a lost art.

Acid Soil Troubles.

While we will readily admit that much good turf was grown during this acid soil era we will also willingly and gladly admit that this system of soil management had some very serious drawbacks aside from the prevalence of brown-patch. We will be perfectly delighted to see the acid era pass into oblivion and stay obliterated. Why? Well, if there is anything meaner, nastier and more ornery to handle than the general run of acid soils we have yet to meet up with it.

Consider a typical tight clay soil such as many golf courses are cursed with. These soils are invariably acid in nature, slow to drain, bake like a brick during droughts and are a pestilential mess as far as the growing of fine turf is concerned. Now if a well-informed farmer were undertaking to grow crops on such a soil he would begin operations by applying several tons of lime per acre. Why? Because the lime, in the course of a reasonable period of time would correct the soil acidity and thereby automatically “open up” the soil making it friable, quicker draining, and much less inclined to bake when dried out. In other words the application of lime to tight soils is a recognized procedure in modern farming.

However, during the “acid soil” regime we were denied the use of lime on such tight soils where the bent and other fine turf grasses were to be grown because, as stated above, it was held that such grasses were best grown in acid soil. Consequently, the greenkeeper was put to the necessity of using other devious and relatively expensive methods of “opening up” tight clay soils. As far as the greens were concerned he changed the nature of these clay soils by actually transforming them into medium and light clay loams by the application of huge quantities of sand and liberal applications of organic matter. When this result was obtained the soil was still acid in nature but could be more readily handled because it was not as heavy and tight as the original clay.

The Close of the Acid Soil Era.

This system worked out fairly well from the expense standpoint as far as the comparatively small area of the greens was concerned, but it would have taken a small fortune to so treat the fairways, and the sand-banks of the country would have been sadly depleted before the operation was even partially completed. As a result the fairways of many golf clubs in this country during the acid soil era have not been much to talk about. Golf club officials simply shut their eyes to fairway conditions as they actually were and hoped for better days.

From present indications the “acid soil” era in the history of American turf maintenance came definitely to an abrupt end at 3:30 p.m. Friday, January 4, 1929, when Monteith read his paper at the Green Section meeting in New York, dealing with the effects of lime upon brown-patch, and if the other waves are not lying I think I can hear the amused chuckles of more than one veteran greenkeeper who used lime in the good old “bone meal” era and quit using it only when threatened with the loss of his job for insubordination.

The Bone-Meal Era Returns.

Why am I so firm in the belief that lime is coming back? It’s a fair question and here’s the answer.—In any phase of agriculture and of course turf maintenance is a phase of agriculture, what are the factors which determine the trend in methods? Is it simplicity of operation, the cheapness of a particular method or the fact that a crop will grow better under certain conditions and methods? Not by a jugful. It is the enemies of a crop
in the shape of insects and disease and the methods used in their control which absolutely decides the *modus operandi* to be employed in growing that crop.

Let us say for the purpose of argument that bent grass *will* grow better in acid soil than in limed soil. That doesn't mean that from now on, in view of Monteith's results in controlling brown-patch with lime, that bent grass is going to continue to be grown in acid soil. What is the use of growing the *highest* grade of bent grass in acid soil only to have it wiped out every summer by disease? It simply means that possibly a *slightly* lower grade of bent grass will be grown in limed soil but the slightly lower grade of bent will be more than compensated for by the freedom from disease. In the same way many clubs may dislike intensely the idea of using arsenate of lead for grub control but you've *got* to use it if grubs are present or else stand by and see the turf die by inches.

If the fine turf grasses do not grow quite so lustily in limed soil, (mind I'm not saying they won't) I still believe that the use of lime will be warranted and profitable if only because it renders the taming of stubborn soil types cheap and easy. A ton of ground limestone applied to an acre of stubborn clay soil will do more in rendering it amenable to the growth of fine turf than a carload of sand and at a fraction of the price.

Weed Control in Limed Soil.

There is plenty of evidence to show that clover and certain weeds are encouraged by the presence of lime in the soil. Consequently we may expect to see a return to importance in the public eye of the problems of clover and weed control in fine turf when the use of lime becomes extensive. The answer of course is fairly obvious. It simply means that extended and intensive research must of necessity be conducted by technical investigators for the purpose of working out simple methods of controlling clover and certain weeds, these methods to be compatible with the use of lime. If such research is conducted in a thorough and consistent fashion by able investigators backed by sufficient funds it is safe to say that control methods will be evolved in due course.

Lime and Fertility.

Now is a very opportune time for every alert greenkeeper to pick up his copy of "The A. B. C. of Turf Culture" written by O. J. Noer and wear out some brain tissue by making a careful study of Chapter Four entitled, "The Functions of Organic Matter in the Soil." In this chapter Noer details the role that the organic matter in the soil plays in feeding the plant growth. He shows that a soil must be in the pink of condition as far as drainage, physical condition of the soil particles, aeration of the upper soil layer, etc., are concerned in order that the organic matter may decompose at the proper rate and thereby release its store of plant food in such a shape that the growing plant can absorb it. This is necessary because the bacteria responsible for the decay of this organic matter work best when they have adequate soil moisture and free aeration of the soil to supply needed oxygen. Noer also indicates the value of lime in assisting the bacteria in their important work of converting raw organic matter into plant food.

Under the circumstances, other things being equal, it follows that a soil containing sufficient lime will always be more fertile and support a heavy growth of turf much more efficiently than will a similar soil deficient in lime. In other words the lime assists, first, in putting the soil into good physical condition; this good physical condition being indicated by the fact that the soil is easily handled. It drains much more readily and quickly after a heavy rain. It is more springy and friable to the touch and can be dug, cultivated or otherwise handled without forming into hard clods. When such a soil dries out it has less of a tendency to bake. Second-ly, since lime does all these things to a stubborn soil it increases the fertility of the soil because the soil bacteria are then able to work on the organic matter in such a soil to the best advantage and thereby convert this raw material into available plant food.

(Continued on Page 105)
Is it a false-alarm snare for the pros as claimed by HERB GRAFFIS

The cut-price is a false idol for the pros to worship. First class retailers have discarded the price cutting policy to the utmost possible extent. They wish they could do away with it altogether. It is contrary to the now generally accepted purchasing policy, "the best is the cheapest." The pros are in the business to make money. Their volume is subjected to definite restrictions. As it looks to us, the pros' hope for the profit due him lies in more sales of properly priced quality merchandise, with the pros' cost price of the merchandise kept down by team-work with the manufacturers in eliminating distribution and credit loss wastes. Selling the stuff to the members for less money is nothing to hold forth as a hope. The savings reasonably possible won't amount to enough to warrant the reduction, and the

(Continued on Page 100)
the Siren's Song?

I N MAKING my comments on your article, "Cheap Goods a Snare," I wish it understood that the views I express are my own entirely and it does not follow that the P. G. A. will adopt any policy advocated by me. You miss the point in your article by suggesting that the pros contemplate entering the cheaper class field. I do not advocate any such move but I do say that the pro should be in a position to meet any local price situation that may exist. Surely you would not expect the pro to sit back and be undersold by all and sundry without making a move to protect his business? What you say is exactly what the pro has been doing these many years but things have come to such a pass now by our following that policy the pro now must move and move fast.

actual cost as a lure for volume that will make up losses on the featured merchandise. That policy would be suicidal for the pro.

The manufacturer is a vital part of this picture and obviously his support and co-operation is necessary in helping solve the merchandising problem that confronts many of the professionals. In taking this subject out for a clinic GOLFDOM invites any interested manufacturer to express his views, to be published WITHOUT his signature, so a frank and full expression will be encouraged.

Golf is a new business, and like all new businesses has its pressing problems. A lot of time and money will be saved for all concerned if these problems are publicly probed. That's what GOLFDOM'S for.

HERB GRAFFIS, Editor.

I used to be of your opinion about cutting prices and until now the pro has held fast to the regular price with what results? I shall try to enumerate a few of the things we are up against by following the policy you advocate.

The pro shop is regarded by some members as a fine place to get "stuck" because the same article might be bought cheaper in town or elsewhere from a price-cutter who uses it as a come-on. The fact that the pro stocks this article is proof to the buyer that the article must be all right. Hence the members doubt us. They think that because we are undersold is a sign that we either stick them or that we are a bunch of numb-skulls for allowing such a situation to exist, consequently we risk losing constant buying touch with our members and we are accused of lack of business sense because we are undersold.

You admit that the pro is the one reliable merchant left in the golf business and I ask you, are we not losing ground by it? You must admit our business is not keeping up with the increased playing of the game.

Even though the pro makes the market for golf goods, and establishes brand standings the store maybe buys cheaper than we can because of large volume and cash which adds big to their profits and gives them a leeway to play with, but whenever it was suggested that we do the same by pooling our buying, up went a holler and I am curious to know why. Is not the manufacturer interested in large orders for cash? They would be foolish if they were not. Does buying in this method not result in cheaper manufacture? Absolutely yes. Surely this would not cheapen the goods if some of this saving was passed on to the consumer. The motor car is a fine illustration. Compared to five years ago when it comes to price surely the cars are not a whit inferior. You say first-class stores are not cutting prices—are Sears Roebuck, Montgomery Ward, United Drug and the innumerable chains not first-class stores and the ones

(Continued on Page 102)
Team-work and Technicalities

Feature topics of greenkeepers’ meet

By HERB GRAFFIS

In the election of John Morley of the Youngstown (O.) Country club as president of the National Association of Greenkeepers of America, for his third term, the organization’s third annual meeting thoughtfully resisted the lure of the deep tangled rough of association politics and committed itself to playing in the fairway toward the long green of higher general standard of course maintenance and a bigger reward for better greenkeepers.

Morley, a veteran who enjoys the confidence of greenkeepers, club officials and U. S. G. A. Green Section powers, had two pretty sharply defined fields for the work of his administration again laid out before him at the Buffalo convention. During the next year it was made plainly evident that there must be greater unity within the ranks of the greenkeepers themselves and consequently that certain of the eastern greenkeepers’ organizations must be made factors of the National body if it is going to live up to its name. The complaint on the part of the easterners is that the National association now does not give them equitable voting representation. However, that is a matter that ought to be ironed out with some give and take on both sides.

It will have to be handled before effective advance is made in securing the close co-operation of green-chairmen and the Green Section necessary for the success of the greenkeepers’ ambition of bettering courses and their own status.

This subject of closer co-operation and mutual understanding with the club and Green Section officials, together with the presentation of greenkeeping training policies and methods, made by Prof. L. S. Dickinson, constituted the high spots of general interest on the program. There was an unusually good and well balanced program of technical papers at the convention, and the program committee deserves warm praise for its judgment and efforts in arranging the line-up.

Vote Next Meet to Louisville

According to the vote taken at the convention the next annual convention and show of the N. A. G. A. will be held at Louisville. The decision was made after George Davies of Louisville had single-handed waged a fight for the event. The easterners believed they had the 1930 meeting “in the bag,” but bucked up against the fact that the middle section of the country polled more votes. The central states contingent mourned that they couldn’t afford to come to New York and the corps from the Atlantic seaboard lamented that many of their number would keenly feel the rap of expenses to Louisville. So there, dear friends, you have a specific example of organization problems confronting the fellows who are handling, individually, realty and construction investments worth hundreds of thousands and trying to get by—the majority of them—on less than the wages of a union plasterer. No matter what the sectional make-up of their organization is, they are going to “see America First” as conventioners with an assortment of hungry mugs craving action in the old homestead.

The answer seems to be that suggested by a Jersey green-chairman, J. H. Greenbaum, at the meeting; enlist the cooperation of the employing clubs and acquaint the employers with the purpose, spirit and definite benefit of the meeting to the degree that the clubs will consider the expenses of the greenkeeper to the convention a valid and valuable item in the annual greenkeeping costs. During the course of the Jerseyman’s extemporary remarks, a survey of the greenkeepers present was made, and it was found that of approximately 300 greenkeepers registered at the convention about
had their expenses paid by their clubs. Not a bad beginning, but it needs a lot of boosting.

**Moguls Give the Boys a Hand**

What might be labeled "a few well chosen remarks," made by Ganson Depew of Buffalo, a notable in golf club officialdom, also were interpreted by the greenkeepers as evidence that the powers that be in golf club government look with favor upon the ambition of the greenkeepers to be dealt a hand in a comprehensive plan of research and maintenance method development. Mr. Depew, who is president of the Buffalo District Golf association, welcomed the convention, and reminded the boys that because the U. S. G. A. stood unreservedly for the good of the game, the purposes of the two organizations were united in this that binds. Mayor Schwab of Buffalo also greeted the convention with a brief and felicitous address.

The technical phases of the program will be dealt with in due course, but as matters of general interest to the golf field, the program feature spots were when both barrels were fired into the assembled multitude by J. H. Greenbaum, green chairman of the Jumping Brook Country Club of Asbury Park, N. J., and B. R. Leach, formerly of the U. S. G. A. Greens Section and now one of the turf experts of the country on a fancy legitimate per diem fee. Although members of the association their remarks undoubtedly had more bearing upon the destinies of the greenkeepers' organization than any statements previously made before national or sectional assemblies.

**Greenkeeping Needs Advertising**

Both of these gentlemen mildly rebuked the greenkeepers for hiding their lights under the proverbial bushels. Greenbaum, who answered the roll call as one of the very few green-chairmen who attended the meeting with his greenkeeper, presented to the turf nurses the valuable bet they overlooked in not giving the green-chairmen and the clubs an idea of the value of the meetings. This was the same theme Leach loud-pedaled in speaking on the potentialities of the college boys in greenkeeping. The Riverton expert said that the college-trained lads, being unable to keep silent, introduced an element of self-advertising that might be a valuable influence.

Naming the zero hour in greenkeeping as a business as the date of the organization of the U. S. G. A. Green Section, Mr. Leach lamented neglect of the greenkeepers in the working line-up of the Section, for this, he maintained, hurt the individual dignity of the greenkeepers who nursed high aspirations of achievement for the good of the game as well as for their professional standing. The original plan of organization, he stated, formed an army of dilettante greenkeepers. Such a plan might have been pardoned by the general conception of the condition prevailing at that time, but had been outgrown by the development of the greenkeepers' position in the world of golf. He exhumed the old slogan as indicative of the earlier attitude of the Green Section, "Come to the meeting and bring your greenkeeper—if you wish."

**"Yes—Sir Man's" Day Past**

As a result of these conditions, Leach said the greenkeeper became submerged unless he was with a club that let the greenkeeper assume proper responsibility for his business. The result was that the greenkeeper became too much of a "yes, sir," man and afraid to take the initiative necessary to best course maintenance. A business with that spirit doesn't advance, Leach pointed out. He referred to Prof. Dickinson's address in which the varied and vital details of a good greenkeeper's qualifications were outlined, by delicately suggesting that the green-chairman's limited training and tenure of office did not identify him as the one almighty potentate over the situation—not that he claimed this position for the greenkeeper, but rather a wise balance.

Leach also said that ruling out participation of the manufacturers in the golf field by the Green Section was no longer neces-

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**N. A. G. A. ELECTION RESULTS AT BUFFALO**

**President** — JOHN MORLEY, Youngstown Country Club.

**First V. P.** — JOHN MacGREGOR, Chicago Golf Club.

**Second V. P.** — LOUIS M. EVANS, Cedarbrook Country Club.

**Secretary** — JOHN QUAILL, Highland Country Club.

**Treasurer** — JOHN McNAMARA, Pittsburgh Field Club.
sary. He cited the assistance given colleges and other research organizations by manufacturers who were tremendously interested in the definite findings of unbiased authorities. Business now is selfishly interested and selfishly honest, according to his observation, to the extent that suspicions of bias in the research work partially financed by manufacturers and conducted by impartial authorities, had been discarded in other lines of endeavor. He hazarded the guess that greenkeeping practice would have been advanced considerably beyond its present status had the commercial factors interested been allowed to help in the financing of the Green Section's work.

More Golf Money Needed

Golf courses haven't given the Green Section adequate financial support, claimed Leach. In making his estimate of the costs of Green Section work he related something about the seven years he and his associates spent on the grub control research that eventually brought lead arsenate into turf arena as the "white hope" in the bug battle of the century.

Although lobby babble had the Leach talk on the trend in the greenkeeping profession forecast as a "rootin' tootin'," revolutionary event it was notably temperate and a simple, apparently sound, view of the situation through the eyes of a man who knows his greens and the spirit of the changed times. The one thrill of potential fireworks came as a result of his comment on what he termed the "theory and practice of Service Bureau buying," during which he cited an instance of practical utility playing second fiddle to first cost as the control factor in a Service Bureau purchase. Miss Evelyn Nickerson of the Massachusetts Service Bureau tangled with him on this point. The debate was brief and left no dead or wounded on either side.

New Greens While You Wait

With Louis Evans presiding the first day's session got away to a flying start. Joe Valentine prefaced his talk on resodding a putting green with the comment that although the increased use of machinery was supposed to be making the greenkeeper's job easier, the new complications and the more exacting and extensive demands on the turf boss were making his spot tougher every day.

In outlining his method of resodding so that his re-surfaced greens were ready for play a day after the work was completed, Joe advised cutting the sods about 10 inches by 12 inches, which he said was about as big as they could be handled with safety. He said to spread the turf instead of piling it, as rain on a sod pile would ruin the lower layers. The sod should be spread where there is no traffic. The soil upon which the sod is to be re-laid should be raked three times so every stone would be removed and the soil made very fine. A 400-pound roller, he stated, was just right for finishing. The green then should be top-dressed. Excellent pictures of work done by Valentine in re-sodding were passed around.

In contrasting the old and the new in Canadian greenkeeping methods, W. J. Sansom of the Toronto Golf club, mentioned the error of generalization that was so frequent in the old days. They soon found out that British methods were unsatisfactory under Canadian conditions.

There was not enough attention given to top-dressing in the earlier days. Then the heavy roller was in vogue and much harm was done by its use, continued the Toronto man. He referred to the present fertilizing and top-dressing practice. He said at his establishment he found sharp sand in top-dressing was excellent especially as protection over winter. Winter-kill he designated as a major misery in Canada, and told of the Dominion's greenkeepers' varying success in prevention. His best results were obtained from top-dressing with screened compost put on in December.

He wound up with an outline of the work of the Canadian Greenkeepers' organization, which was organized in October, 1924. Monthly meetings are held. During the summer these meetings are conducted at the courses of various members.

O. J. Noer in his address on soils touched upon many points that have been covered in his articles in GOLFDOM. Due to the importance of his subject a digest of his talk will appear in an early issue of GOLFDOM. Hiram Godwin read the interesting address on "Animal vs. Chemical Fertilizers" which was prepared by Victor George, president of the Indiana Association of Greenkeepers, in collaboration with professors A. T. Wiancke and S. D. Conner of Purdue university.

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