

300 GREENSMEN SEE 1935

BETTER

BY
JOE GRAFFIS

ALMOST 300 greenkeepers, registering about 60-40 from the United States and from Canada, checked in at the National Association of Greenkeepers of American convention at Royal York Hotel, Toronto, Feb. 5 and 7. The convention attendance and sprightly interest was a surprise to those who had figured that the financial plight of the greenkeepers and the holding of the convention in Canada would keep American attendance down to a number that could be comfortably accommodated in the equipment shed of the Weeping Willow, Ind. nine hole club.

The exhibitors didn't do much business but they got some close-ups on definite signs of a revival in course equipment and supply business.

Fred Burkhardt of Westwood CC, Cleveland was elected president of the association for the coming year. Burkhardt is a veteran official of the national body and for a number of years was head of its convention committee which put on some great exhibitions. Elected with Burkhardt was another veteran, John Anderson of Crestmont CC, West Orange, N. J. who was made vice-president, and the able and active young A. L. Brandon of St. Charles (Ill.) CC who was continued as sec.-treas. Frank Ermer, Ridgewood CC, Cleveland, O., was re-elected chairman of the show committee.

Directors elected were: John Quail, Highland CC, Pittsburgh, Pa.; J. A. Gormley, Wolfert's Roost CC, Albany, N. Y.; John Gray, Essex G&CC, Sandwich, Ont.; R. E. Farmer, Brynwood CC., Mil-

waukee, Wis. and James Thomson, Cincinnati (O.) CC. Prof. Dickinson of Mass. State college and Wm. Fownes, jr., the former USGA official of Oakmont were elected honorary members. A radio announcer also was elected an honorary member. This was a polite though surprising gesture to those who can think of scores of earnest, diligent and talented men in university and other research staffs and golf club and association officials who are continuously and valuably contributing to the advancement of greenkeeping and greenkeepers.

John MacGregor, former president of the association was presented with a testimonial of appreciation for his services.

Select Cleveland for 1936

Cleveland was selected as the place of the 1936 convention. No date was set.

A plan for extending the membership through the adding of various classes of non-voting memberships was proposed at the convention. No action was taken on this proposal which involves a voting Class A membership of greenkeepers, greenkeeper-pros and greenkeeper managers at annual dues of \$6; Class B of assistants who have served for 3 years under a Class A member and pay \$3 annual dues; Class C of green-chairmen and others interested in turf culture who will pay \$10 annual dues; and Class D of unemployed men eligible for Class A who will pay \$3 annual dues.

Those who showed up at the convention were pretty well battle-scarred from their jobs of trying to keep courses in de luxe

condition on a dwarf budget, prayer, sweating days and sleepless nights. Most of them agreed that Allah had been merciful to let them get through. The year 1934 they believed generally, was about the last year in which they could be expected to perform as miracle men in course maintenance. They reckoned the reason most of them got by on their budgets was because the brown-patch and insect pest problems had been lightened by the services primarily organized and extended by the Green Section and which penetrated extensively due to the growth and activity of sectional greenkeepers associations. As a fairly general thing the summer was rather easy with golf course diseases and insect plagues, although drier than the Sahara in most localities.

Fear Green Section Slump

The boys are beginning to get scared at the curtailment of Green Section work and fear that if an easy summer is followed by a tough one in 1935, in the ordinary cycle of things, it will be just too bad on the golfers and their clubs that must depend on the scientific work the Green Section does in association with the practical greenkeepers.

As was proper the program dealt with the "higher education" phases of the greenkeeping profession but with strictly practical applications. Addresses given at the convention appear either in high spot briefs or in comprehensive scope in this and the April issues of GOLFDOM.

As an indication of the development in scientific greenkeeping you can take the interest accorded the address on "Limitation in the Use and Interpretation of Chemical Tests on Golf Course Soils" given by Prof. G. H. Ruhnke.

Jack Gormley of Wolfert's Roost GC, Albany, N. Y. in his talk on "Organized Cooperation" brought out the angle that these convention technical addresses were of just such value as the greenkeepers could determine from the application of the scientists' dope in actual course work plus the greenkeepers' comparison of notes on the actual field work. Jack, a hard-bitten and successful veteran stressed the point that the greenkeepers not only have to think but have to think together if they are to get definite and extensive practical value from addresses like those made by Profs. Ruhnke, Caesar, Noer and other scientists and practical experts who spoke. Gormley strongly asserted that

the National association did not, and could not, exist to dictate policies of sectional organizations, but as a general headquarters allying and coordinating all sections in their respective and common efforts.

Gormley is to have charge of a membership campaign which the association will conduct this year.

Caesar Talks on Insect Control

"The Control of Insects Attacking Turf Grasses" was the address of Prof. L. Caesar of the Ontario Agricultural college, who took up in turn the various importantly destructive insects of golf greens and told of the usual control methods for combating them. These pests included earthworms, cutworms, grasshoppers, sod webworms, white grubs, Japanese beetles and ants. In conclusion, the professor said:

There is no doubt in my mind that arsenate of lead is much less injurious than corrosive sublimate to the parts of the plant above ground. It seldom causes any burning of leaves and therefore there is not nearly the same risk in applying it as a spray if one prefers to do this instead of broadcasting it as a dust. Which is preferable, broadcasting or spraying, should be decided by whether you want the material to remain on the leaves and stems or not. If you do want it on them, as for cutworms and to some extent for webworms, spraying would seem the better method. No washing down would be required in that case. If you want the poison to go to the ground and none of it to remain on the foliage because the insects to be combated feed below the surface, the best method is to broadcast it. This can be done uniformly only if the poison is first diluted with a suitable amount of soil or fertilizer. It must then be well watered into the soil.

The effect of arsenate of lead upon the soil and the vigor of the grass has perhaps not yet been fully investigated. It is known that annual bluegrass does not thrive in its presence, but the bents and other valuable grasses seem, after seven or eight years of successive treatments, not to have been injured in any way. Many claim that they are even invigorated. Professor White states that arsenate of lead has no injurious effect upon the nitrifying organisms, and actually seems to help them in their work. However there are reports from a few places of its having had some devitalizing effect upon turf. Some claim that the soil is too acid where this is so.

The address by W. H. Wright, chief seed analyst of Ottawa, was full of sound

advice to the greensman charged with purchasing seeds intelligently for the golf course. He stressed the caution that at least three things should be watched closely when placing an order for seed.

Of major importance is the purity of the seeds. Some fine grass seeds, he said, are very difficult to identify, and very easy to adulterate with the seeds of another grass of the same type. Only an expert can spot this adulteration, so the source from which seeds are purchased should be one in which all confidence can be placed.

Seeds should be weed-free; otherwise the cost of weeding greens far exceeds the slight saving which results from purchasing cheap seeds. Bargain seeds, he said, should always be regarded with suspicion. The smart buyer at all times demands a purity analysis, which tells the proportion of pure seed, other crop seed, weed seeds and inert matter. The buyer is paying for the pure seed. He frequently has no objection to a few "other crop" seed, as for example a few bluegrass seeds in with some bent. He does not want many weedseeds, and he should object to paying for inert matter at seed prices.

Finally, the seeds should have a high germination. It is fallacious to think that the same stand of grass can be obtained from low-germination seed by sowing them thicker. In most cases a seed which does poorly in laboratory germination tests has low vitality and will not develop into a sturdy turf even under the most careful nurturing.

The expert offered one suggestion that greensmen will do well to heed on all purchases. He advised:

When you purchase seed for use on your course always demand a certificate of analysis. Pay to have the seed analyzed before purchase if a certificate cannot be procured otherwise. Always keep a small sample of each lot of seed for further reference in case you later have reason to lodge a complaint. Such samples should be carefully labelled and dated and a note made giving the details of purchase.

Mr. Wright closed his address with an interesting and careful description of the important sources of leading turf grasses and the rigid requirements of the governmental agencies which certify to the purity of seed lots.

Architect Makes Maintenance Job

Robert Trent Jones, of the firm of Thompson and Jones, golf architects, made

it plain in his talk "The Common Interests of the Golf Architect and the Greenkeeper," that inexperienced course designing is something greenkeepers should try to prevent at all costs. Since a course is no better than the condition in which it is maintained, it is deplorable to leave the greenkeeper with an impossible maintenance task due to incompetent construction.

On the general subject of architecture, Jones said there are three main types. First is the penal type, of which Oakmont, Pine Valley and the National Links are examples. On such courses trouble lurks at every turn. On Oakmont, man-made bunkers spray the course, while at Pine Valley there are patches of fairway among sand-swept wastes. Oakmont requires expensive maintenance to keep its bunkers in shape; Pine Valley's sand wastes need no attention. Thus, their greensmen's problems are distinctly different.

The second type of golf architecture is the strategic school, of which the old course at St. Andrews, Scotland, is the most famous example. The landscape has a placid appearance, but the golfer will discover adroitly placed traps, subtle rolls and plateaus, and bold green contours to ruin a good score. Amateur architects find the strategic school most difficult to copy, lacking as they do a thorough knowledge of the stroke and of shot-placement.

Heroic School Has Fine Points

The third type of architecture is the heroic school, combining certain features of both the penal and strategic types.

Diagonal traps from 170 to 220 yards in front of the tees permit the golfer to bite off whatever he thinks he can chew, and an alternate route around the hazard is always furnished. Greens are set at an angle to the line of flight to worry the bold player, with green openings off center to give a safe approach to the cautious player willing to jockey into position.

The greenkeeper's task is easier on the heroic type of course than on the penal, but generally somewhat more complicated than on the strategic layout.

There is a fourth type of architecture that is in great vogue today, Jones said. It is really a combination of the three types outlined, with heroic, penal and

strategic holes alternating. Jasper Park is an outstanding example of this school.

Jones lamented the decreased activity of the Green Section, due to finances, saying it had done immeasurable good for golf. He urged that clubs join the USGA, so that the Section work may be resumed.

A good architect keeps the greenkeeper's needs constantly before him as he supervises each new course. He sees that greens are given good foundations, that drainage is thorough, that surface contours permit efficient use of maintenance machinery, and that the architecture will permit economical installation of fairway watering. A competent architect will remember such details; the amateur architect may bungle things.

Tennis Court Pointers

Paul J. Lynch, as superintendent of recreation of Troy, N. Y., is an expert of 20 years' experience on the construction maintenance and management of tennis courts and swimming pools, and gave the NAGA delegates the benefit of some sound advice relative to these two common adjuncts to golf courses. An abstract of his talk follows:

Tennis courts are divided into three categories; hard surface, turf, and clay. All should be laid out north and south so that there will be the minimum hindrance to the players no matter what the position of the sun. It is unwise to have tall trees in the vicinity of tennis courts because of their shadows. The amount of graded surface needed for each tennis court should be a minimum of 50 x 120 feet. More length is advisable.

Subgrade, whether of cinders, crushed stone, or other porous substance, should be carefully installed, as the final grading of the court depends largely upon this. Standard practice as to grade is 2" from the back of court to center. Greater pitch than 3" from back to net is not advisable.

Hard surface courts such as concrete and various asphalt mixtures practically take care of themselves once installed, the only maintenance being the painting of the lines on the concrete at infrequent intervals. A mixture of four parts clay to one part sand is the usual formula for clay court surfacing. Lynch prefers limestone dust instead of sand. This dust should be practically a powder and it is usually necessary to rescreen the dust. Calcium chloride is used as a dehydrating agent to keep the courts in proper condition. About 600 pounds to a court is an efficient application. The price of calcium chloride at the plant averages about \$26 a ton.

In preparing final surface of courts either after repair or in construction, Lynch uses a cheap homemade device consisting of a 12' two-inch plank with 20-penny spikes protruding about 2". The spikes do the ripping and the plank does the leveling. As perfect grade is approached the spikes are driven until they protrude only about 1/2". In rolling courts it is always advisable to finish rolling in the long direction. Tapes for lining tennis courts are highly unsatisfactory to the players. Any standard wet lime marker is satisfactory.

Different types of tennis court surfacing have been developed during the past several years. A type of surfacing composed of sawdust and oil, which forms a waterproof resilient surface somewhat resembling composition flooring, has worked out very satisfactorily I understand in the South, but Lynch has had no luck with it probably due to severe frost conditions during the winter in Troy. The oil used in combination with the sawdust is any gravity flux oil of the same consistency as No. 11 Louisiana standard. Where night lighting is used in connection with the tennis courts it has been found that the higher the lights are placed the better the results.

Sanitation is Pool Essential

The entire operation of a swimming pool with Lynch means but one thing—sanitation. When building a pool be sure that the runways surrounding the pool slope away from the pool. Be sure scum gutters protrude several inches beyond the pool edge. One of the chief factors of the enjoyment of the swimming pool seems to be the lounging about in a bathing suit. This means that the surface surrounding a pool should be so constructed that people upon returning for another dip will not carry into the pool dirt of various kinds.

As a matter of safety and also a very necessary legal defense in case of suit, depth signs should be placed at regular intervals around the pool. Have a rope suspended by floats strung across the pool where the water starts to deepen rather abruptly below a depth of 3 1/2 feet. Get the best possible diving apparatus; a cheap diving board is a continual expense and nuisance.

Many state laws demand the installation of footbaths at some point between the locker rooms and the pool for the prevention of athletes' foot. These baths should be so placed that the bather will have to walk through them in order to get to the pool. Many different solutions are used in the footbaths, possibly outstanding among them being Alta-Co put out by the Dolge Company. We have

(Continued on page 65)

Figuring Handicaps This Way Saves a Lot of Time

A RECENT release from the USGA tells of a short-cut formula for figuring handicaps under the Calkins' system, the one recommended by the USGA and generally used by clubs. Handicap committees will find this method very efficient.

The usual way to figure a player's handicap is to (a) add together a player's five best scores, (b) average them by dividing by 5, (c) subtract the par of the course and then (d) figure $4/5$ ths of this difference.

Under the short-cut system, simply multiply by .16 the difference between the total of a player's 5 games and a figure equal to 5 times the par of the course.

For example, if a player's 5 best scores are 90, 89, 89, 88 and 87 his total is 443. Your course has a par of 72. Five times 72 is 360. The difference between 360 and 443 is 83, which multiplied by .16 equals 13.28. The player's handicap is 13. Fractions of one-half or over count as a stroke; fractions under one-half are dropped.

Still Time to Attend Wisconsin Greens Short Course

SHORT Course for Greenkeepers given annually by the University of Wisconsin will be held on March 7 and 8. The course is under the direction of Prof. J. G. Moore of the Horticulture dept. The following program has been arranged:

Climate in relation to selection and maintenance of grass. O. J. Noer, Milwaukee Sewerage Commission.

Identifying grasses by vegetative parts. A. L. Stone, Dept. of Agronomy, U. W.

Some experiences in draining greens. Howard Ream, Nakoma CC, Madison.

New developments in fairway weed control. Kenneth Welton, USGA, Green Section.

Using annuals and perennials on golf courses. James G. Moore, Dept. of Horticulture, U.W.

The fairway fertilization problem.—Welton.

Factors in fairway watering.—Noer.

Fairway watering systems.—P. A. Harper, Skinner Irrigation Co.

Golf Course Economics.—Welton.

Experiences and Lessons of 1934.—Noer.

When—What—and Why.—Moore.

The course is open to greenkeepers, golf club officials, park and estate superin-

tendents, and any others interested in turf culture. The fee for the course is \$4.00, which includes a get-together dinner to be held at 6:00 p.m. on March 7.

Course Maintenance Men Meet at Kansas City

A dinner and meeting attended by 36 greenkeepers, chairmen and green-committee members in the Kansas City section was held at Hotel Ambassador, Feb. 18. Wm. Peters, head of the sectional greenkeepers' organization which called the meeting, outlined the problems and aims of the greenkeepers. M. R. Hall of Old Mansion presided over the rest of the session which heard Chester Mendenhall on the high spots of the NAGA convention, O. J. Noer on fairway management in the Kansas City district, and officials of prominent private clubs in the district who are encouraging and cooperating with the greenkeepers association.

Those at the meeting were asked to promote the proposed congressional appropriation of \$50,000 for turf research problems which Kansas City men pray will be granted as further curtailment of Green Section activities due to lack of funds is considered to be dangerously in prospect.

NAGA MEET

(Continued from page 22)

found any strong solution of chlorine to be effective.

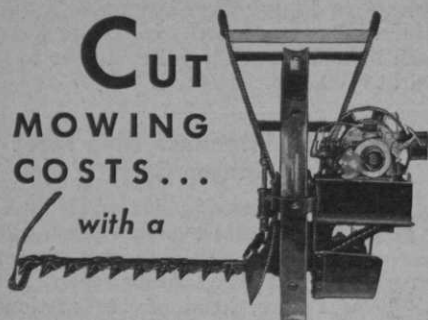
It is absolutely essential for the maintenance of pure water in which to swim that filtration and chlorination be a part of the pool system. In the Troy \$50,000 pool the water is purer than good drinking water. With different types of pools Lynch has attempted all kinds of methods of sterilization for bacteria control. In a fill and draw type of pool HTH has been the most satisfactory solution; for the recirculating type of pool the Wallace & Tiernan, solution type feed, is by far the most efficient and trouble-free.

There has been too little of filter washing. Water experts advise washing filters twice a week. For the past several years Lynch has washed them daily with much better results. The amount of alum used as a coagulant on the top of filters should be carefully studied, as too much alum will result in smarting eyes and sticky hair on the part of the bathers. Lynch uses just as little alum as absolutely necessary.

The speaker declared he had never secured a satisfactory paint for a concrete

**CUT
MOWING
COSTS...**

with a



DETROIT MOTOR SCYTHE

- Here is the most economical and easily handled cutter on the market
- It goes anywhere, cuts anything, and enables one man to do the work of four or more with hand scythes.
- It has a 36-inch sickle driven by a powerful one-cylinder gasoline motor and is mounted on a free running 30-inch wheel, allowing it to be backed up, pivoted sharply, or tilted up or down slopes similar to a wheelbarrow.
- It is now produced by a recognized leader among mower manufacturers and during over four years of service, thousands of users have enthusiastically testified to its dependability.

Write for prices and Bulletin No. 4

DETROIT HARVESTER CO.
5450 W. JEFFERSON AVE., DETROIT, MICH.

SAVE | SAVE | SAVE
WATER | LABOR | COST

SLOW, EVEN, 30% MORE COVERAGE
with the New Improved
PERFECTION SPRINKLERS
is the Answer to
IRRIGATION ECONOMY

Let us send you one for 10 days free trial, you'll be amazed with the results.



Showing a Y15, price \$12.50, covering an entire 7000 sq. ft. green on only 35-lb. pressure.
See your dealer or write direct for full particulars and prices.

Manufactured and fully guaranteed by
PERFECTION SPRINKLER CO.
PLYMOUTH, MICH., U. S. A.

outdoor swimming pool using a chlorine disinfectant through a recirculating system. He has yet to discover a paint that will hold up for over a period of years under the conditions mentioned. So far, the most satisfactory is a cement paint applied yearly. It is economical, produces a pleasing effect, but does not stand up for any length of time under the tremendous wear and tear given the floor of the pool by the thousands of people walking upon it.

In hiring a lifeguard require a senior Red Cross lifesaving certificate or a Red Cross examiner's certificate.

Avoiding Winter Damage to Greens

Leo Feser, greenkeeper at Woodhill GC, Wayzata, Minn., had as the subject of his talk "Preparing Putting Greens for Winter." At the start Leo made it clear that he was talking about winter green protection in the North where heavy snow is usual.

There are two causes of injury to turf in winter—organic injury, represented by snow mold, and mechanical injury, which can be divided into three distinct types, suffocation, dehydration and bruising.

On the subject of suffocation, he said, a plant in dormant condition is not in need of air, but once it starts to grow in the spring and then is covered with sufficient water to prevent air from contacting the plant for 2 or 3 days, it may be killed. Prevention is the elimination of faulty surface drainage. Sub-surface drainage does little good because the subsoil frost prevents the water from seeping away.

Dehydration is the drying out of the plant caused by inability to absorb water when water is essential. Greatest injury from this cause takes place when the subsoil is frozen and the surface soil is warm enough to encourage plant growth. The frozen subsoil prevents water rising by capillary attraction. On the surface, the plants grow rapidly, evaporate the available surface water, then dry up and die. *Poa annua* appears to be more susceptible to this form of injury than the bents.

The third form of injury to greens is bruising, caused by walking on the green when the surface is frosted, or when the surface is thawed and slippery and the underground is frozen. Walking over a frosted green bruises the leaves, but does not affect the roots and recovery of the turf is but a matter of a few growing days. More serious is the bruising when surface is thawed and the ground below frozen. If traffic is heavy, the slippery

surface soil becomes puddled and the roots cannot perform their function. Prevention of this damage is simple—keep players off the greens during the critical thawing days of spring.

To minimize snow mold injury Feser does not fertilize his greens in late fall so heavily that the turf becomes succulent, as this seems to make the plants more subject to the disease. He also keeps his greens close-clipped. Less grass on the green lessens the chance of injury. He likes 1/8 to 3/16 inch growth after the final cutting and before the final freeze.

During November, as soon as there is little chance of a thaw, Feser applies 1 cu. yd. of topdressing to 5000 sq. ft. of green surface. Material is compost, screened through a 1/4 in. screen, mixed with Milorganite and Calo-Clor. Care is taken to get this thoroughly mixed. After rubbing the topdressing in lightly, Feser covers the greens with brush to encourage a heavy blanket of snow. The snow prevents mechanical injuries and, if the snow comes before the ground has frozen more than 2 or 3 inches, the blanket of snow will not only prevent further freezing but will actually permit the warmer subsoil to thaw away the small layer of frost that does exist.

Another type of spring injury is described by Feser:

We have had one or two springs when the grass, growing well, had been cut once or twice. Then we had a freezing wind lasting for over 24 hours, accompanied by a light snow. After warm weather came again, the exposed slopes of the greens were in bad shape. Most of the grass on these slopes was dead. Upon reseeding, we had a good germination, but the plants died. The second seeding did likewise. I then spiked in a fairly heavy topdressing of good, active compost, and the third seeding was applied with good results.

This experience led me to believe that sudden lowering of soil temperature by freezing wind actually sterilizes soil much as milk is pasteurized. The soil organisms were killed, leaving a condition similar to a place where a hay stack or brush pile burns. Upon inoculating this area with active soil, the organisms were introduced and began to thrive immediately.

An address on fertilizing fairways and greens was given by R. L. Emslie of Canadian Industries, Ltd. He brought out many helpful points in Canadian and general practice and in talking about experiments made by his company said that successful results had been obtained with

PAGE FENCE



Club members want fenced fairways, caddy yards and tennis court backstops. PAGE FENCE is more than a product. It's a service. Write any office below for information and name of nearest of 82 Page Fence Service Plants.

PAGE FENCE ASSOCIATION
 Bridgeport, Connecticut
 NEW YORK, PITTSBURGH, ATLANTA
 CHICAGO, SAN FRANCISCO
America's first wire fence—since 1883

SPIKE DISC

LAWN & GREEN CULTIVATORS
 (Patented)

For Greens,
One Handle
Model
(illus.)
\$27.50

With Two
Handles
\$30.00

Tractor
Model for
Fairways
\$120.00

"Use Regularly," Say
Authorities

A NECESSITY FOR TURF AERATION

SPIKE DISCS aerate the turf and produce a moisture-retaining mulch—essential for the maintenance of fairways and greens. They discourage "brown patch" by preventing ground from becoming hard baked. Unequalled for re-seeding—and top-dressing. Seed and fertilizer settle in disc-made perforations and are not blown or washed away. Inexpensive, durable, easy to operate.

Details and Prices from your Golf Equipment Dealer or

JOHN H. GRAHAM & Co., Inc., Sales Agents
 113 C Chambers St., New York
 268 Market St., San Francisco
 565 W. Washington Blvd., Chicago
 Mfd. by Wilder-Strong Co., Monroe, Michigan

GET WISE



Compete with a complete line of beautiful new golf bags. Win the approval of your customers. Priced to give you a good profit and easy on golfer's purse strings. Start selling the close buying public.

Send for our new 1935 illustrated circular and price list.

Canvas Products Corp.

Fond du Lac, Wisconsin

You've Seen This Record System The PGA Endorses It

Know where you stand at the end of each day with this system of records designed by experts exclusively for Pro shops. A lifetime set of books—nothing to wear out or break—

- Complete "books" in one binder
 - Easily kept by assistant—15 minutes each day
 - Stops small but irritating profit leaks
- Originally designed for the U. S. Rubber Company as part of their famous "Pros, Players and Profits" selling plan for golf professionals. A proved article worth many times its cost.

Price \$12.75, postpaid east of the Mississippi
CROSSMAN & CLAYTON, 65 Duane St., New York City

CLUB OFFICIALS and PROS

●
New Plan Now Ready

●
**Install Nationally Known
FULNAME GOLF BALL MARKER**

At No Risk—No Obligation

A REAL PROFIT MAKING PROPOSITION.
WRITE AT ONCE FOR COMPLETE DETAILS.

(Over 3000 Clubs Now Profit with Fulname Marking)

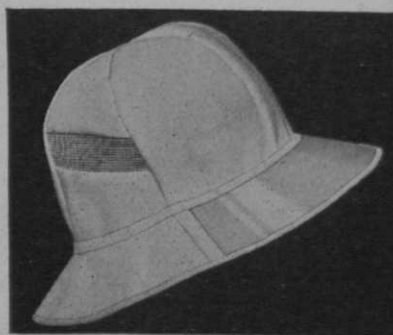
The Fulname Co., Cincinnati, Ohio
LeBlond Building

alternate applications of 5-12-2 and organic fertilizer.

Interesting and instructive addresses on Canadian practice also were made by Chauncey Kirby of Rivermead GC, Toronto on "Compost Preparation and Uses" and by H. Hawkins of the Lakeview GC on "Greenkeeping Yesterday and Today."

JACKMAN AFTER PRO TRADE ON NEW CONGO HAT

Chicago, Ill.—The 1935 model Congo hat promises to be more in demand this summer than ever before because of several new features. It is made of pre-shrunk white or tan duck, with a green transparent or a white opaque celluloid no-glare eyeshade in the front brim. Breathers in the crown assure free circulation of air around the head for maximum



comfort. These hats, light in weight and flexible, may be rolled up and tucked away in a golf bag or pocket. They allow a wearer perfect freedom of movement, will not interfere with a golf swing or any other activity. Priced to sell at 50 cents, with a good pro margin, they are distributed by Jackman Sportswear Co., Inc., 218 S. Wabash ave., who merchandise a complete line of sportswear to pros throughout the country.

PENNSYLVANIA INTRODUCES MODEL K MOWER

Primos, Del. Co., Penna.—Pennsylvania Lawn Mower Works this year comes out with a new Model K fairway mower at a price lower than its Standard model. Model K is the same as the Standard unit except that it is made of gray iron instead of unbreakable malleable iron. The company figures that many of the smaller clubs and resort courses will find this mower right in service and price.

Pennsylvania looks forward to a continuance of the yearly increase in business its Giant 36 in. fairway unit has en-