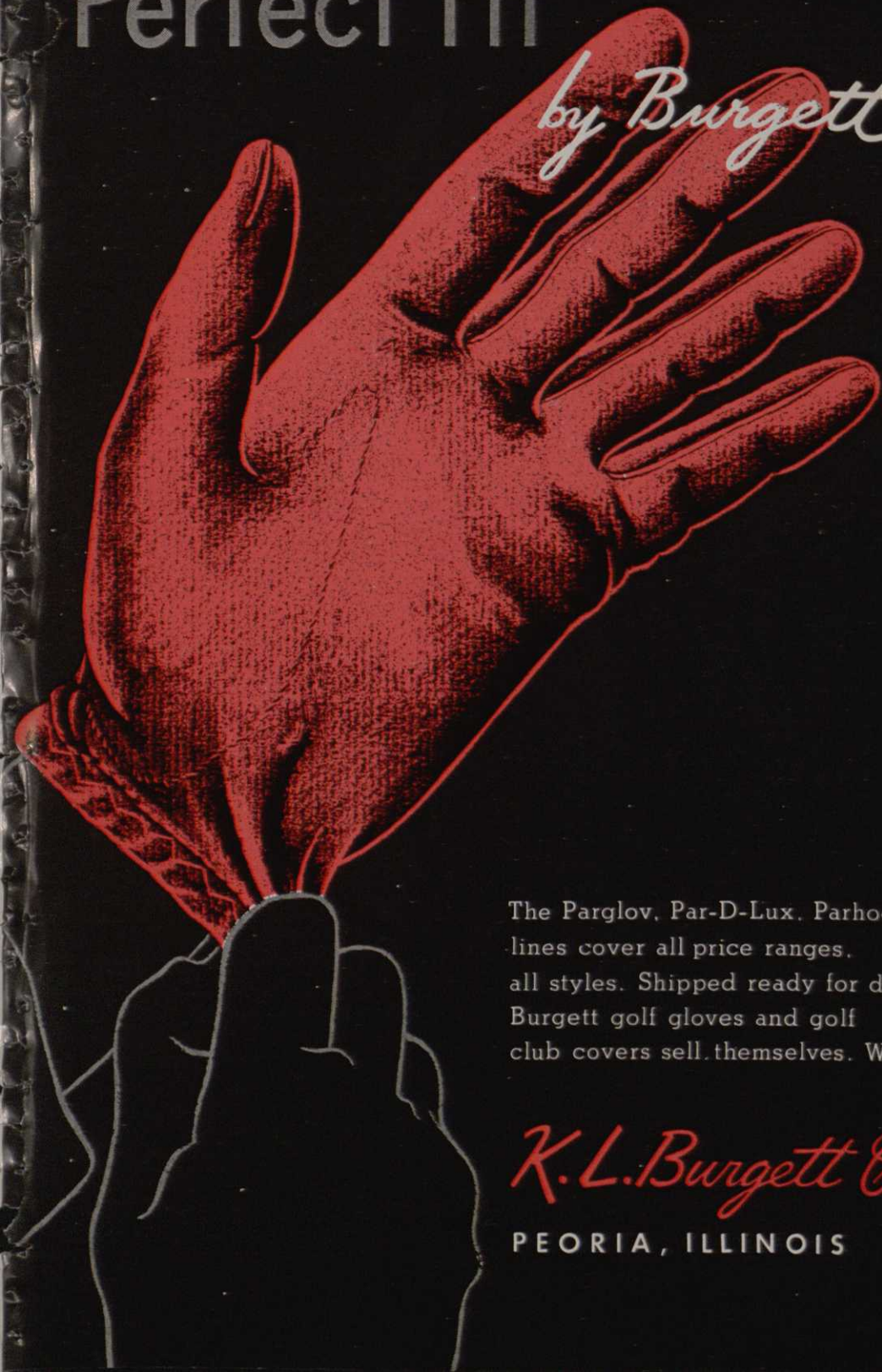


Perfect Fit

by Burgett



The Parglov, Par-D-Lux, Parhood lines cover all price ranges, all styles. Shipped ready for display. Burgett golf gloves and golf club covers sell themselves. Write

K. L. Burgett Co

PEORIA, ILLINOIS

starts. He should check and inspect all construction work and keep the club informed of its progress, the contractor's performance in following the specifications, and advise the club on accepting the work done by the contractor. He should look after the club's interests and keep officials informed of problems that may arise during construction.

Where topsoil overlays subsoil, the topsoil should be removed and stockpiled before grading operations are started. Following grading, topsoil shall be uniformly distributed over the graded area. All filled areas should be free of stumps, brush or any other material which will decompose and cause settlement of the fill. Rocks or stones must be at least 24-ins. below the finished surface. All fills shall be compacted as stated in the specifications. All finished surfaces must drain as shown on the drawings and no depressions or pockets which hold water should exist. If subsoil drainage is required it shall be installed during construction before the surface is finished.

All slopes should be graded as indicated on drawings and stated in the specifications, with all surfaces finished smooth. No humps or berms shall remain which can't be mowed with standard course powered mowing equipment without scalping the turf. All contours shall be finished in a like manner.

Tiling Specifications

Where tile drainage lines are specified they should be installed according to the drawings. Tile lines shall be adequate in size, ditches properly graded and tile aligned and covered as stated in the specs. Cleanouts should be provided at not more than 200 ft. intervals to permit rodding in both directions with a 100 ft. tape or rod. Outlet structures should be built at all tile outlets and protected with a suitable screen or gate to keep out rodents and small animals. Where tile lines carry surface water, catch basins shall be constructed at the elevations specified.

All berms at catch basins shall be graded so that they can be mowed with power mowing equipment without scalping the turf. All cleanout and catch basin covers shall have openings in them small enough to prevent a golf ball from entering the system. All surface contours should be designed to conform to the drainage system design. All stream and ditch banks shall be graded to permit use of power mowing equipment.

Where trees and/or shrubs are re-

44 Courses in Allegheny County

In reply to Golfdom's request for information pertaining to the number of courses in various counties throughout the country, James H. Potts, assoc. sec. of the Pennsylvania Golf Assn., Pittsburgh, says there are 44 courses located in Allegheny county. According to Elizabeth Lake, asst. sec. of the Cleveland Dist. GA, there are 30 clubs in Cuyahoga county. It is expected, however, that several semi-private courses in the county will soon be out of business because of sales of their land for subdivisions.

moved, all roots to a depth of eight inches should be removed. Cultivation is an important item of maintenance and roots can cause expensive repairs to cultivating equipment. All roads and service drives shall be graded and drained; if paved they should be constructed to stand up under anticipated loads. Electric car paths shall be constructed as indicated on the drawings and should be designed for anticipated loads and climatic conditions.

Elevated tees should have slopes that can be maintained with standard power mowers. Adequate surface drainage shall be built into each tee. Topsoil used in construction should be tested for fertility and if deficient, it should be modified while the tee is under construction.

Traps should be constructed so as to drain all surplus water quickly. If necessary, tile drains should be installed at the time of construction. Slopes should not be excessive and should be flat enough to retard washing of the sand during normal rains. External grass slopes of the traps should be graded so that they can be mowed with power equipment. Traps should be spaced to avoid a traffic pattern which leaves only one entrance or exit to and from the green.

Grading of Rough

All areas of the rough should be graded to give good surface drainage. No depressions which will hold water should be permitted to remain. Tree and shrub plantings should be laid out to a landscape plan which shall take into consideration the strategy of the game, and maintenance by power equipment.

(Continued on page 92)

**•• We're proud of the
results from our
AGRICO Program ••**



says W. G. Crouch, Supt.
Hidden Valley Country Club, Roanoke, Va.



"We began on our AGRICO Program of fertilization here at Hidden Valley in 1952," says Mr. Crouch. "We have our greens, tees and fairways tested at regular intervals by the Agrico Soil Service, and we feed our turf with AGRICO COUNTRY CLUB FERTILIZER and AGRINITE applied according to Soil Service recommendations. Although traffic on our course is very heavy, the turf on our greens, tees and fairways has improved steadily in color, growth and

vigor since we began following the AGRICO Program. We have 500 families in our membership, with 300 to 350 players per day going through the course on weekends. Yet our bent greens have held excellent color and vigor under this continuous heavy play. We are very proud of the results!"

The AGRICO Soil Service will be pleased to recommend a feeding program for your course, without charge or obligation.

See your regular supplier or write

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America's Premier Golf Course Fertilizer

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What does it cost the club members for the annual operation of their private clubs? The round figure of \$500,000 for a 300 member club is fairly realistic, possibly somewhat conservative. As we get closer to our subject, we find that the course maintenance costs lie in the range of \$40,000 to \$80,000. So taking the average figure of \$60,000, we can conclude that the cost of operating the course proper is about 12 per cent of the member's expense dollar. As we get closer to the more detailed consideration of the grounds labor, we are speaking of a \$25,000 to \$50,000 expense which, in turn, represents 5 to 10 per cent of the member's expense dollar.

These figures should place course maintenance costs and labor costs in a better light for further study. When we get around to thinking in terms of economics, savings and budget cuts at our clubs, the grounds department doesn't lend itself to being a major area for consideration. May I add that efficiency doesn't necessarily indicate a reduction of cost or expense but more appropriately the process of reducing waste to a minimum and getting the most out of the money expended.

Profession Has Advanced Rapidly

The supt. is the primary figure concerned with effecting job analysis studies and planning. So it is contingent upon this man in management as to the type of studies and records that he will engage in and as to how effectively they can be put to use. A brief evaluation of the supt. of today reveals generally a highly dedicated individual whose profession has progressed rapidly over the past 30 years and especially so in the post war years. While we are still a predominantly practical group, we are gradually changing to the more scientific, more educated and more executive type of individual.

Our profession has advanced rapidly over the past 30 years.

Golf has advanced so rapidly that we have not kept pace by training new supts. The clubs must share part of the responsibility by not acknowledging the supt's comparative value to the club and establishing income standards that create a more inviting and attractive environment of employment for men better qualified to fulfill the club's needs. In our international assn. we have about 1000 men from a potential of 6000 clubs who are progressive enough to become mem-



Job Analysis **Can Cut Waste** **Out of Maintenance**

By ROBERT M. WILLIAMS
Supt., Bob O'Link GC, Highland Park, Ill.

This article is condensed from a speech made by Williams at the annual USGA Green Section meeting.

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GOLF GLOVE

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Champion

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popular
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available in
Pro shops only!



For a long time, the **Sta-tite** has been a favorite with golfers from coast to coast. The big advantage is the patented nylon lastik back which keeps the palm tight, smooth and wrinkle free. Also, the natural weave of extruded rubber strands, nylon covered for softness, give a porous back for cool playing.

ORDER NOW! The Sta-tite in the new colors,

plus many other fine Champion golf gloves
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309-11 COURT AVENUE • DES MOINES, IOWA

bers of their professional trade group. This tells me that about five of six clubs possibly are getting by on substandard grounds management. Fortunately for golf, there are supts. who have continued to educate themselves, and clubs that have wanted increasingly better playing conditions. Therefore progress continues and at the same time the gap between supts. widens.

Maintenance Objectives

Efficiency implies the accomplishment of an objective with minimum waste. Practically every club has a different objective when it comes to a standard of course maintenance. So we have many variations of standards. In illustration we can compare a well groomed private club and an austerity minded municipal course as two extremes. Most of the refined operations of trimming and grooming at the private club are desired and necessary. But most of these same practices would be totally extravagant if applied to the public course. It doesn't need bentgrass tees and fairways. It doesn't need collars around the greens, edged traps, fresh sand annually and so forth. The time required for mowing a green at a club desiring top putting surfaces is bound to be greater than the time allowed for the same operation at a profit minded public course where standards are relatively low. In most mowing operations speed reduces quality, as we all know.

Fortunately, in large metropolitan areas, we usually find a few clubs desiring similar standards of maintenance. They provide an opportunity for discussion of many common factors, yet they cover quite a spread of overall aims with variable pocketbooks to pay the bills. So in discussion of efficiency of maintenance we have to adjust the shoe to fit the foot.

Informal Type Studies

Time and motion studies on golf courses must of a necessity be pretty much informal. These have to be made by observations by the supt., keeping of minimum records and by making pilot studies from time to time by both the supt. and perhaps the various golf assns. Course time and motion studies can't be compared to those of factories.

"Job Analysis" is more appropriate than "Time and Motion Study." On golf courses we must correlate efficiency with money available, the supt., amount of play, club objectives, the grounds staff,

USGA Lists Course "Sins Most Frequently Committed"

A six page pamphlet recently released by the USGA to its member clubs listed the "sins most frequently committed" on a golf course. These include:

1. Littering with soft drink bottles, glasses and paper cups;
2. Climbing out of bunkers from the high side;
3. Failure to replace divots;
4. Failure to repair ball marks;
5. Turf scuffing caused by dragging feet and twisting on the green;
6. Leaning on a putter while standing on the green;
7. Using a putter to scoop the ball out of a hole;
8. Jabbing the putting surface with a flagstick or carelessly replacing the pin;
9. Deliberately hacking up the green;
10. Careless use of golf cars.

weather, unusual conditions of soil, drainage and possibly a few other factors.

The supt. should be aware of these factors and direct his attentions to continued observation. I have tried to develop an approach so that whenever I observe our men working, I ask myself this question, "Is there a better way to do this job without sacrificing quality?" A supt. must look at all the details and movements of his men fertilizing a green, for instance, and then try to eliminate wasteful effort. This is just another reason why we tell supts. to get out of their overalls and become worthy of the title as well as the salaries they aspire to.

Interference in Maintenance

Efficiency in maintenance involves the factor of player interference to the workmen as well as workmen interference to the players. Neither one is desirable. The subject covers a wide range of discussion. Interference with the workmen has become a nightmare to most supts. Considering daylong play, how long can we allow for the overall cutting of the greens? How early can we and should we start the crew? How much equipment do we need? We can only answer these questions by being on the job, alert to the situation, and making a practical analysis.

If mowing greens ahead of players (and they have to be mowed at least six times a

(Continued on page 88)



OLD TIMERS



ANDY SALERNO, SUPT., Grossinger Country Club:

We use Aqua-GRO on our greens and aprons and on dry knolls in the fairways. Four years ago we rebuilt part of our 4th and 5th fairways where we couldn't get grass to grow. We tried everything—really fertilized—finally in the Spring of '59 we applied three 8 ounce treatments of Aqua-GRO per 1,000 sq. ft. at 15 day intervals. The fairways have no irrigation and formerly this area would get sloppy, mushy, then hard. Now the soil is firm—no markings from trucks—and the treated turf stands out. The untreated rough looks so bad that we plan to start treating it with Aqua-GRO this year.

AQUA-GRO® Non-ionic Organic Soil Wetting Agent

Aquatrols Corporation of America • 217 Atlantic Ave. • Camden, N. J.

GROSSINGER,
NEW YORK

There has been an extensive development of commercial seed production of Seaside creeping bent and various colonials such as Astoria and Highland from predominately native stands. Although some differences of opinion still exist concerning the relative merits of the vegetative versus seeded, and creeping versus non-creeping, the greater weight of opinion and experimental evidence overwhelmingly favors the vegetative, creeping types.

As early as 1921, Piper and Oakley reported that vegetative creeping bent is "all in all, the best of putting green grasses". This has been further substantiated by the later work of the USGA Green Section, various experiment stations and performance on many courses.

Significant Improvement

Practically all improved vegetative strains were isolated following years of natural selection under actual playing conditions of early mixed seeded types such as South German bent. Undoubtedly, the continuous use of this technique has resulted in a very significant improvement in the quality of turf over the years. We need only to compare the present day performance of our "named strains" versus the old Virginia, Columbia and Washington, or with the turf produced with commercially available seed to appreciate what has been accomplished.

What are the limitations and problems with the vegetative bents?

Being confined in germ plasm these strains are limited to "optimum" performance to local regions of adaptation. Original selection and proper testing have been limited to a rather small section of the country, yet the strains have been used quite extensively at the larger fringe areas.

Documented Evidence Lacking

Within a region of proved adaptation the performance of these strains may vary significantly from year to year due to fluctuations in climatic conditions. Even more pronounced may be the use, management and growing environment to which they are subjected. Documented evidence in differential wearing ability, nutrient requirements and other specific management practices is practically non-existent. As a result, it may take a quarter of a century before the relative merits of a single strain are recognized.

Lacking certification and proper handling, many cases of lost identity have re-

(Continued on page 96)



Vegetative Bent Has Improved Quality of Turf

By **JOSEPH M. DUICH**
Agronomist, Pennsylvania State U.

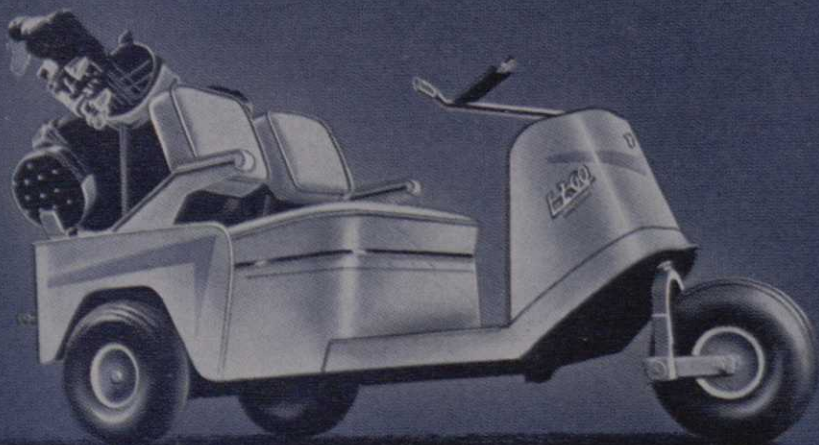
This article has been condensed from a speech made by Joe Duich at the GCSA convention,

Prestige

is the priceless reward for a product well made. Everyone associated with a name so honored, buyer, maker and user alike — share benefits that are valuable beyond compare. That is why you see more and more EZ-Go's, the nation's finest electric cars, cruising the world's finest golf courses.

EZ-GO Car Corporation,
Augusta, Georgia
A TEXTRON COMPANY

*America's
largest exclusive
golf car
manufacturer*



BOOK REVIEWS

How You Can Play Better Golf Using Self-Hypnosis. By Jack Heise. Wilshire Book Co., 8721 Sunset blvd., Hollywood, Calif. Price: \$2.

Considering the success of hypnosis in the maternity ward, a book such as this had to be written. If you've tried everything else without success (referring to your golf game, of course) you could do worse than read Jack Heise's opus.

Quoting a noted New York doctor and longtime practitioner of hypnosis, Heise points out that by lulling yourself into the proper state, the subconscious, you will learn to leave your tensions and fears at the conscious level and proceed to the automatic, grooved swing of the champion. This isn't too hard to do since the



Jack Heise demonstrates the subconscious.

conscious and subconscious are next door neighbors, although there is a wall between them.

Conscious effort is the swing wrecker, says Heise, and subconscious, the par maker. This is illustrated by the practice swing vs. the real thing. You've probably noticed it yourself. When you swing at a blade of grass your execution oftentimes is perfect. But when it comes to 1.62 ounces of golf ball, that is something else. Too often in the latter case you become conscious of perhaps five or six ways in which you can louse up the effort. So you do!

Chapter 5 may be worth the price of the book, particularly if you have insomnia. It tells you how to induce hypnosis by the happy medium of lying in bed and kind of mentally frisking yourself as you

put first your legs, then your arms, trunk and finally the head in a lethargic state. After mastering this you're ready to turn to your golf game. In this, the author suggests that you strive to make the movement of every muscle in the swing automatic without allowing any conscious annoyances to creep in.

In a book of this kind, it doesn't take much effort for a writer to go off half-cocked. Jack Heise doesn't. He emphasizes that you have to learn how to properly swing a club before self-hypnosis can help you. After you've developed a solid swing through practice it becomes a matter of learning how to turn off the conscious and turning on the subconscious.

Mercifully, Heise tells the reader to practice swing hypnosis at home and not try to achieve it on the course. Play is slow enough now without perhaps 100 or more golfers out there on Saturday morning trying to put themselves in a trance at each address.

Dictionary of American Sports. Edited and compiled by John S. Salak. Published by Philosophical Library, New York.

In 491 pages and more than 6,000 terms the lexicon of more than 80 sports is assembled by John S. Salak, a former editor of Ring magazine. There is extensive coverage of the technical terms as authoritatively defined by rules of sports. Also, there is considerable sports slang of common enough usage to qualify for generally acceptable definition.

Stretching the Budget

L. E. (Red) Lambert, supt. Prairie Dunes CC, Hutchinson, Kans., and pres., CCSA, says that one of the smartest ways for a supt. to stretch a small budget and protect a good reputation, is to have the first and 10th tees, the 9th and 18th greens and other areas close to the clubhouse always perfectly groomed. Lambert accents good housekeeping in his course management. He tells his staff that a sure way for one of them to lose his job is to step on a piece of paper on the course and not pick it up.

CMAA Membership Rule

At its recent national conference the CMAA ruled that applicants for membership must have one year's experience at one club as mgrs. or assistants before their applications will be considered.