

*No Centre -  
No Pill -  
No Core -*

*in this Walter Hagen*  
**CORELESS!**

Here's a brand new Hagen ball that will justify and fulfill every claim that we and you can make for it!

It's a distance ball with an unusually tough cover for tournament and low handicap players.

Retains its perfect roundness, round after round, for there's no centre to break, shift, or get off balance. The entire ball, except the cover, is formed entirely of pure Para thread.

Play a Hagen Coreless—you'll be amazed and delighted with its performance—and if it's talking points you need to interest members in buying, this Hagen Coreless is literally covered with them.

In two compressions—Red—testing at 75 to 90 for tournament play—and Blue—testing from 60 to 75 for low-handicap and average players.

Get the inside on this Hagen Coreless now, so you'll be ready to go with the Spring starting gun!



*Grand Rapids, Mich.*

# Hiring Pro? Rate Him First

By Herb Graffis

NOT long ago a new pro was hired by a metropolitan district club. The job has a \$1,400 guarantee for 7 months, and all concessions. There were 185 applicants. Unfortunately for some of the well-qualified candidates, they couldn't—or didn't—write letters that gave clear pictures of their qualifications and their ideas for serving the club's specific needs.

The committee narrowed the field to 10 applicants. GOLFDOM's editor was asked to look into the club's condition and advise what pro qualifications would fit the club's need. During the sessions, one of the committee, a highly successful businessman, suggested a scorecard for pros.

Said this official, "When I began to hire men for important positions in my companies I made out a list of qualifications they should have. I rated each applicant on points for his merit in each department of his operations and his character. Although this rating depends, sometimes, on insufficient data, it has helped me to pick the right men to make money for me and for themselves. Isn't there some kind of a rating system for pros?"

## Dope Out Rating Method

There isn't such a rating, so, for this job, a rating method was devised.

The items on the pro job scorecard, and the comment of the committee as the items were set down, will be of interest to pros and to club officials who have the responsible task of selecting the right man to properly handle the pro's important duties at a club.

Name . . . Some applicants on their general reputations are entitled to further consideration, while others have been so careless about establishing their good name even rumors about them rule them out.

Age . . . A fellow must be old enough to have had adequate experience and to have acquired sound judgment. The upper age limit was considered to be in the early sixties. Some club officials consider an older man if in good physical condition, and of an active open-minded and pleasant temperament, to be much more inclined to stay on the job and regard the club members as members of his family.

Appearance . . . Untidiness in any detail of person or dress rules out a candidate.

Record . . . Too frequent changes of jobs is held against the candidate unless each change is an advance. Letters from previous employers, unless containing details of performance, do not carry much weight. Anybody will write a vague letter of recommendation just to keep from being bothered further. A good credit record is significant because it indicates that the applicant knows his business.

Family . . . A family man generally is more dependable, unless family situation is one that encourages extravagance and social activities that are unwise.

## Is He a Teacher?

Professional qualifications . . . Any definite data on the number of lessons he gave annually at his former club, and on status of handicaps at his former club, showing golf interest and proficiency he developed. What's his record on junior classes or women's classes, if any? Has he developed any especially good golfers with championship records? How is his own playing? How have his shops looked at his former places of employment?

Does he show an interest in other departments of the club, without ill-advised interference with their operations or personnel?

What does he know about greenkeeping? Has he attended any of the greenkeeping short courses?

Does he take an interest in the improvement of his own profession, and in his own education, or does he think he 'knows it all' and is self-sufficient?

Is he energetic for the club's interests, or does he prefer to sit around the shop, or gamble with a few of the members, or want to play in too much of an outside tournament schedule?

Temperament . . . Is he pleasant? Is he tactful? Does he get along well with the rest of the club staff as well as with the members? Is he one who members' children can regard as a gentleman sportsman? Is he selfish, or does he think conscientiously of the club's interests as a primary factor in his own advancement?



# FORE! BRISTOL BUILT PAUL RUNYAN CLUBS TEE OFF FOR 1940 WITH A FULL PAGE IN TIME!

No need to tell you of Paul Runyan's big following in the Golf world. No need to tell you how advertising like this can boost your sales of Bristol-Built Paul Runyan clubs!

Just keep this in mind—in addition to being designed and built to embody Paul Runyan's own ideas for better play—these clubs have "Equi-Tuned" shafts—the exclusive Bristol feature assuring perfectly *balanced flexibility*.

Check over your stock of Paul Runyan clubs now—and write today for full details of the Paul Runyan line of Bristol-Built clubs.

## PAUL RUNYAN CLUBS

Made in Bristol, Connecticut by  
HORTON MANUFACTURING COMPANY

**FREE FOR YOUR SHOP**—Write today for a neatly mounted reproduction of this advertisement. Display it in your shop—and take advantage of its straight forward suggestion for your club members—"Let your Pro help Improve your game."



Is he inclined to talk too much—and out of turn?

Judgment . . . Is he inclined to devote time to drinking or cards with members at the club, or does he apply himself to his golf club job? Does he look for opportunities to improve the club's condition and members' enjoyment of the club, or does he have to be told to do things? Is he inclined to play club politics, or has he the talent to cheerfully and calmly settle members' disputes about rules, handicaps, etc?

General value . . . Can we regard him and his family as an asset to the community? Can we regard him as an educator and an executive who handles his responsibilities competently, smoothly? Can we regard him as a good businessman in his line? Has he the initiative to make himself a constructive element for the club, or will he be just another name on the pay-roll handling his job so he gets by? Will he promote friendship and unity in the club and handle his job so he contributes noticeably to members' enjoyment of the club?

\* \* \* \*

It was surprising how closely the 10 sifted candidates rated. It was about a toss-up on that job. The fellow who was selected won the appointment by quietly studying the club situation for two days, then telling the club officials his ideas of pro department service that would service and increase the membership.

## Purdue Plans Short Course for Pros

PURDUE University's Division of Physical Education for Men plans to conduct a golf instruction clinic at the university, Lafayette, Ind., April 9 and 10. This will follow Purdue's annual greenkeeping short course, Feb. 27 and 28.

The golf instruction clinic details now are being worked out by M. L. Clevett, Purdue Recreation Director, Indiana and national PGA officials, and golf instructors at universities in the central states.

It will be the first golf instruction clinic ever conducted by a university, so far as available records indicate. It will endeavor to give pro golf instruction the publicity and benefit of organized research that has been highly beneficial in other college and high school sports.

Discussion of teaching problems and

demonstrations inside and on the Purdue course will be highlights of the program. The physiology and psychology of the golf stroke and golf instruction will be discussed by competent physicians, along the lines pioneered by the notable addresses of Dr. Robert Dyer at the Illinois PGA 1939 spring clinic and at the educational session at the PGA annual convention.

Further details may be secured from M. L. Clevett, Purdue University, Lafayette, Ind.

## Soil Test Kit Will Answer Turf Problems

By George L. Burney

BECAUSE no one can tell what a soil needs by looking at it, more greenkeepers every year are testing their soil in order to use fertilizers with maximum efficiency. New equipment, developed by manufacturers in cooperation with agronomists and practical greenkeepers, has made soil testing a simple matter. In ten minutes' time it is possible to determine the acidity of any given soil sample and any deficiency in nitrogen, phosphorus and potash. Thus, essential soil information is made instantly available when and where it is needed most.

This knowledge, plus the greenkeeper's own experience in the needs of his green and fairway grasses, makes it possible to lay out a fertilizing and soil treatment program in accordance with the actual conditions on his own course. Soil acidity may be promptly adjusted to give the best results. Turf is fertilized in accordance with its needs, and there is no waste from applying excess quantities which may do more harm than good.

While nitrogen is the chief plant food requirement of golf grasses, a soil test frequently reveals a lack of phosphorus or potash, which should be corrected if a strong, healthy growth is to be obtained.

There are several soil test kits on the market. Most practical for the greenkeeper is an outfit which tests for acidity and for nitrogen, phosphorus and potash. High grade equipment which will make as many as 200 individual tests, may be bought for twenty dollars or less. The kit itself is permanent, and inexpensive refills mean that it may be used year after year. There are few investments which, both in improved results and actual cash savings, could be more profitable.

**THE RULES OF GOLF AT A GLANCE . . . GREENS** STROKE PLAY

**WARNING:** This chart deals with the rules of golf.

Two other charts of one ball stroke play.

Three ball stroke play.

Some important articles.

**THE RULES OF GOLF AT A GLANCE . . . GREENS** MATCH PLAY

**WARNING:** This chart deals with the rules of golf.

Do not play by the rules of golf.

Less important articles.

If ball moves after being touched, it is in play.

**THE RULES OF GOLF AT A GLANCE . . . TEES**

**GOOD PRACTICE**

Ball may be holed on the green.

In stroke play, stroke from outside one hole.

Ball is out of bounds when it is out of bounds.

Ball may be holed from the hole.

**THE RULES OF GOLF AT A GLANCE . . . SAND TRAPS**

Ball within club length. Lift ball to see if it is in hole or if it is in hole. If it is in hole, it is in hole. If it is not in hole, it is not in hole. If it is in hole, it is in hole. If it is not in hole, it is not in hole.

You must play from ground water in a bunker or hole or stroke penalty for dropping either in or outside bunker. Other Rule 27 (1) which says if ball comes from hole, you may set up on hole.

Search & may be returned because it does not touch the ground, but after your ball is in a trap, search & touching trap, may not be lifted.

If deep bunker, make three attempts, if not, play ball in nearest similar hole.

Green-covered slopes are not part of a sand trap—only the exposed sand is sand.

In match, if opponent's ball moves from hole, stroke penalty or play from hole in. In stroke play, no penalty or be disqualified.

Don't let committee of sand with your ball, which is otherwise good to avoid.

Penalties, etc., may be cancelled on better stroke, if in of ball or not allowed to subsequent stroke, unless penalty and "stroke" are about.

You will lose hole if you play opponent's ball within (a) the three place stroke, in which case search hole with hole exchanged, or (b) one hole due to wrong information from opponent or his partner. It is possible to be disqualified if you opponent plays his next stroke, ready for dropping near as possible to spot where his ball lay, on penalty. If you play opponent's ball, you possibly if you ball opponent before he plays to avoid that thereafter, you may hole stroke play on penalty for playing wrong ball while in hazard, two strokes if you let it other leaving trap, in either case opponent play with one ball before next stroke or be disqualified.

**WARNING:** This chart deals only with sand traps. There are other types of traps, in which case the provisions here do not apply.

An island of green is a part of a hole, but not a trap. The same "tee" rules apply.

Green-covered slopes are not part of a sand trap—only the exposed sand is sand.

Ball completely covered with sand. Okay to scrape around, but not to lift or move top of ball, or move.

You may "hoop" ball into sand to remove ball, but don't build a "hoop" by wrapping up sand.

If ball moves after taking stance, will not penalty stroke.

Don't touch or remove stones, leaves or other objects in "sand" traps. If they are, they may be lifted.

**GOOD PRACTICE**

There are two ways to play a hole in hazard. Don't use penalty as little as possible. Search out your opponent's and "stroke" in. Do not permit your partner to see the trap.

No penalty for touching leaves, etc., while searching for ball, but no time searching after you find it.

Stroke of bunker, or anything protruding one be touched outside during address in stroke.

Do not touch sand with club while in addressing.

In covered club does not create hole sand in the bunker.

**PENALTY FOR VIOLATORS**

Stroke Play . . . Loss of Hole  
Stroke Play . . . Two Strokes

# SERVING 1,000 CLUBS

Over 1,000 of the nation's golf clubs, from coast to coast, have bought sets of these charts since they were first introduced last fall. They're hanging in pro shops, locker-rooms, grills and lounges, convenient for reference a dozen times a day by golfers both dub and expert. Because, for the first time in history, the Rules have been made understandable and interesting.

Your club needs these charts. Your golfers will refer to them constantly to settle their rules arguments. Clear, concise, understandable. Checked for accuracy by a member of the USGA's Rules of Golf committee. And nothing but praise from the hundreds of clubs and golfers who now own them.

In most clubs, three sets of charts are recommended, to be hung permanently in these key locations: (a) the men's locker-room, (b) the women's locker-room, and (c) the golf shop.

Prices are moderate. **Framed sets**, mounted under glass in one 19x24 inch walnut finish frame and carefully packed for shipment, are \$2.50 each, 3 sets for \$7.00, plus express charges collect.

**Unmounted sets**, 4 charts to the set, 7x10 inches, plus ample margins for framing, on durable paper, are priced at: 1 set, 60c; 2 sets, \$1.00; 3 sets, \$1.50; 10 sets, \$4.00—all postpaid.

Please remit with order and be sure to specify whether framed or unframed charts are wanted.

ADDRESS ORDERS TO **Book Dept., GOLFDOM, 14 E. Jackson, Chicago**

# Make Cost Records TALK

**G**REENKEEPERS who now are relieved of the heavy pressure of spring, summer and autumn programs, are studying costs.

Seldom is there a course maintenance budget that allows much leeway with money allotted for expected work. There always are uncertainties of weather, pests and diseases to threaten wreckage of budget plans. Furthermore there is the disturbing realization of almost every experienced greenkeeper that if he has ideal growing conditions one season and manages to operate under his budget, the saving will be lopped off the following year's budget. Then, the next year conditions may be adverse.

Such financial history of greenkeeping operations is discouraging to the man who hopes to get his course maintenance budgeting and accounting on something like a scientific basis.

The experienced greenkeeper has seen \$5,000 annual maintenance charges for 18-hole courses in which there are plain evidences of inefficient spending. He has seen, too, 18-hole courses where \$35,000 a year has been spent thriftily. Therefore, the greenkeeper who is a good business executive as well as a competent operating man, has learned to regard figures as having dangerous possibilities of leading thought astray.

## All Kinds of Systems

One of the most successful veteran greenkeepers has said that figures are no good to him unless they tell a story. His records coordinate costs, working conditions, and results so closely that he can tell exactly what happened on any detail of work at his course for years back.

Others have far more extensive accounting systems at their courses, but don't know the actual detailed cost of their work. The systems are kept too casually. The men put down estimated divisions of labor, or guesses of time. The day is accounted for but nobody knows how much each job cost. Consequently, there is not much chance for the greenkeeper to work out efficient labor management methods.

It is true that the matter of labor management does not loom large at all clubs.

At a small club where the maintenance staff consists of the greenkeeper and a few men, labor management usually consists of the greenkeeper working harder than any of his men and setting the pace for them. At larger clubs, the greenkeeper can't be everywhere at once, hence an accurate statement of costs of work details is second in importance to knowledge of results achieved.

Even at the small clubs, though, unless the greenkeeper knows quite precisely what each detail of work costs him, he's liable to run into trouble. Guessing \$50 off the correct figure may get the small course fellow into as much grief as the man at the big course experiences when his estimates are several hundred dollars out of line.

Greenkeepers and veteran green-chairmen at the larger clubs counsel their friends at smaller clubs against getting too deeply into course accounting details. Systems can be too involved to be maintained, they point out.

At greenkeeping short courses during

TIME CARD—SAN FRANCISCO GOLF CLUB

		DATE _____							
		Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.	TOTAL HOURS
GREENS	MOWING								
	WEEDING								
	FERTILIZING								
	TOP DRESSING								
	WATERING								
	PATCHING								
	CLEANING UP								
RAVINE	RAVINE								
	WEEDING								
TEES	MOWING								
	TOP DRESSING								
	FERTILIZING								
	WATERING								
	CLEANING UP								
FAIRWAYS	MOWING								
	WATERING								
	FERTILIZING								
ROUGH	MOWING								
	WEEDING								
	CLEANING UP								
	SHOP								
	TOP SOIL								
	GEN. UTILITY								
	REMARKS								
	TOTAL HOURS								

SHOWN

This card records only the time required to finish a given job—does not detail what work was done by greensman.

# SOIL TESTING



*Your Surest Guide  
to Perfect Greens  
and Fairways*

## SUDBURY PORTABLE SOIL TESTING LABORATORY

Easy to Use. Permanent Metal Case. Makes 200 individual tests for nitrogen, phosphorus, potash and acidity. Complete with simple instructions and helpful chart. Inexpensive refills available.

Sensational new developments in soil testing equipment now make it possible for every greenkeeper to get—easily and quickly—the soil information required to produce finer greens and fairways at less cost.

**Easy to Use**—This new equipment takes soil testing out of the laboratory and puts it in the hands of the greenkeeper—where it can do the most good. In ten minutes, it tells you exactly what you want to know—the acidity of any given soil sample, and its possible deficiency in nitrogen, phosphorus or potash. No knowledge of chemistry is required.

**Practical Results**—With this information, plus your own knowledge of the needs of turf, you eliminate guesswork and follow a fertilizing and soil treatment program that is "tailor made" to the actual conditions that you face.

**Cutting Fertilizer Costs**—Greenkeepers often find that the Sudbury Portable Laboratory pays for itself many times over in a single season—not only in the rewards of better greens and fairways, but in actual fertilizer cost. Fertilizers are used more efficiently, and there is no waste from applying excess quantities which may do more harm than good.

**Endorsed by Experts**—The Sudbury Portable Soil Testing Laboratory has been perfected after years of work in cooperation with leading agronomists and practical greenkeepers whose livelihood depends on knowing how to make good turf. It is widely used—and heartily endorsed—by greenkeepers, professional growers and government departments.

**A Permanent Investment**—Inexpensive refills now available make your Sudbury Laboratory a permanent investment. You can use it year after year.

## SEND NO MONEY

The Sudbury Portable Soil Testing Laboratory is sold with the understanding that you may get your money back in full if you are not delighted with your purchase. It isn't even necessary to send any money now. You can pay the expressman when the kit arrives. \$18.50 plus express costs. (Or you can send \$18.50 and we pay all shipping charges in the U. S.). Begin now to enjoy the advantages of soil testing. Use this handy coupon today.

**MAIL THIS  
COUPON NOW**

Sudbury Soil Testing Laboratory  
P. O. Box 3001, South Sudbury, Mass.

Please send me one Sudbury Portable Soil Testing Laboratory. I will pay expressman \$18.50 plus express charges. I understand that you will refund full purchase price if I am not more than satisfied.

Name.....

Address.....

Want us to pay shipping  Check here, enclose \$18.50 and we will ship prepaid. Same money-back guarantee.

the past several years numerous greenkeepers have exchanged data and ideas on their course maintenance work and costs sheets with the result that ingenious and simple systems, adequate for the cases involved, have been devised.

Purchase accounting of equipment and supplies at the smaller clubs seldom is the cause of trouble. The greenkeeper makes out the order in duplicate, with the club office or the greenkeeper himself retaining the carbon for checking against delivery and price of the purchase. At larger clubs, where the large amount of accounting requires the services of a bookkeeper, it has not been unusual to have controversies between the greenkeeper and bookkeeper until satisfactory procedure has been determined. The greenkeeper, working on a tight budget, may require fungicides or repair parts speedily. He telephones the supplier to rush the material, and in the rush and worry of the emergency may neglect supplying the club's accounting office with a memo of the purchase.

#### Needs Must Be Handled Speedily

The bill comes in the first of the following month and a jawing match may be staged, unless the bookkeeper is aware of the extenuating circumstances under which the greenkeeper performed. The other side of such cases is requiring from the greenkeeper memos of requirements on which competitive bids are to be secured, requisitions checked and approved, and other details handled. While this procedure is being followed the time for handling the emergency may have

elapsed and costly damage suffered by the course.

Brae Burn CC, West Newton, Mass., has what many believe to be the ideal complete course accounting system.

#### Major Costs Listed

There are seven principal divisions of Brae Burn's costs. The divisions and subdivisions on which costs are determined monthly—and compared with the budget figures—are:

##### Labor

1. Care—golf-grounds; golf-equipment; house grounds—parking space; tennis courts; trees; drainage; water supply; bridges, fences, walls, etc.

2. Miscellaneous—crab grass, clearing, etc.

3. Construction—golf; house grounds; tennis courts; drainage; water supply; bridges, fences, walls, etc.

4. Police.

5. Supervision.

##### Equipment

##### Outside Repairs to Equipment

##### Supplies

Golf; house grounds; tennis courts; trees; drainage; water supply; bridges, fences, etc.

##### Materials in Construction and Outside

##### Labor

Golf; house grounds; tennis courts; drainage; water supply; bridges, fences etc.

##### Water

##### Food to Employees of Grounds Committee

The Greenkeeper's Log is a basic feature of the Brae Burn system. Each sheet of the log has the names of the greensmen in columnar listing at the left. To the right are seven columns—one for each day of the week. Each daily column is subdivided by headings as follows: Greens—Fairways, Tees, Traps—Rough—Tennis—Other Work—House Grounds—Total. At the close of day each employee must enter the number of hours he worked under the respective subdivision after his name.

Weather and temperature extremes are written in alongside the day at the top of each column. At the right of the sheet is a column for describing "other work," and for a recap by subdivisions of hours and amount paid for the work.

The time card method of accounting, requiring each greensman to record the time and nature of his work on an individual card, is used by many clubs. An

Green No. _____							
Area _____							
Month _____							
Day	Substrs (lbs)	Peeling Green Fertilizer (lbs)	Arsenite (lbs)	Top-d (oz per 100)	Water (gals)	Driven patch	pH Readings
Forward							
1							REMARKS
2							
3							
4							
29							
30							
31							
Total							
Total for Mo.							
Tri. Forward							
Total for Yr.							

Many clubs keep monthly record sheets for each green. These are especially valuable for comparisons and for keeping accurate record of where money is going.



example of the type of card employed is shown by the San Francisco GC card reproduced herewith.

There are arguments for both the log and the card methods. Theoretically the log method giving the complete picture of man and time operations on one page would seem to be the easiest way of visualizing the performance.

Other records to cover special circumstances find valuable use in course maintenance. The San Francisco GC in making an intense, comparative study of green maintenance practice, used the record form shown with this article.

Strangely enough, one of the fundamental records is lacking at the majority of American courses. That record is an exact map of the course with areas of greens, tees, fairways, roughs and traps indicated; location, size and kind of piping and plumbing fixtures; location, size, and kind of drainage, bridges, shelters and major planting, tree location and other data.

Map-making, so far as it can be done by the greenkeeper, is a good use of time during an open winter.

### Says Course Architecture Requires Blender's Skill

JUST what is meant when we speak of golf course architecture? Does it mean beautifying the course, changing rotation of holes, or just what? William Langford, well-known course architect, makes the following competent observation of what golf architecture embraces:

Golf architecture is the science of coordinating the basic requirements of the game of golf with the infinite variations of irregular, complicated surfaces. It is the art of developing endless, interesting golf problems naturally and with due regard to the great variation in golfing ability.

A good golf course should not only be an exacting test for scratch players but, also, an enjoyable, playable, and ever interesting recreation field for the poorest golfers who use it. It should not so much penalize misplays as it should tempt all players to perform more daringly and, by so leading them on, make them better.

The course should be fitted to the terrain, thus calling for a minimum of expensive, artificial construction. Man-made features should be as few as possible and built to conform with and blend into the landscape. So built, these features will

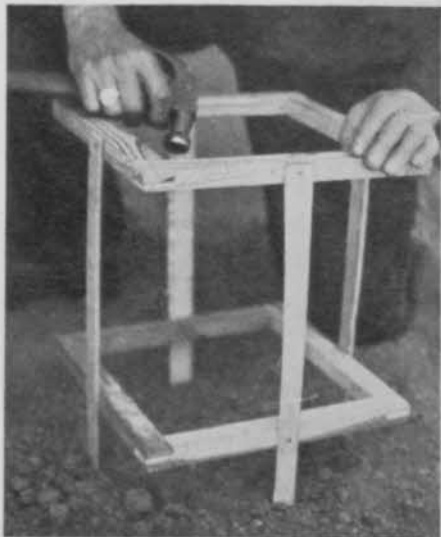
enhance the natural beauty of the layout and can be more cheaply maintained.

A golf course is not a formal garden. Build and keep it as natural as possible. Golf is not a standardized indoor game—it belongs to the wide wind-swept outdoors and its almost exasperating variety gives it invaluable piquancy. Bold, rugged hazards and ever changing, ever challenging natural problems have made and will keep it the eternally elusive objective of sport-loving mankind.

### Protect Shrubs With Frames Made from Fruit Crates

DURING the early stages of growth of many small shrubs and bulb flowers, a substantial protective framework of some kind around them is often a necessity. It may take a bit of work and expense in some cases to procure stock out of which to make them, but generally you can find something such as old empty grapefruit crates as shown in the picture.

Carefully knock them apart. The ends and center portion of such crates form a



strong tongue and grooved square frame, quite large enough. Simply rip the long side strips into sticks some 1¼" or 1½" wide, sharpen one end and tack to one or more of the square frames.

Push the pointed sticks firmly down into the ground; nails from the crating can be used to apply the side or anchoring sticks. In this manner quite a number of such guards can be quickly and easily put together with but little or no expense.

# Mechanize and SAVE!

By John Anderson, Supt.,

Essex County CC, West Orange, N. J.

Modern mechanized course maintenance has been the salvation of the greenkeeper who is hard-pressed to preserve highest course standards despite a steady increase in labor costs.

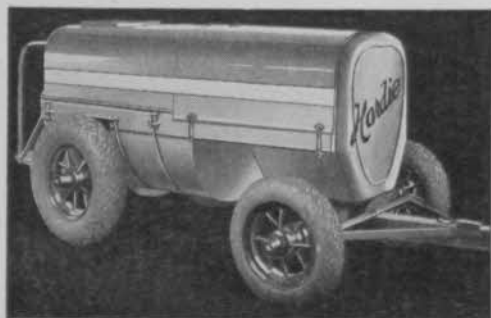
However, there are many problems in adjusting the work of the new and faster machines with the remaining labor that must be done manually, so wise planning to schedule work of machines and man is necessary in order to secure utmost effectiveness and economy from the new machines.

John Anderson, practical greenkeeping authority, outlines some of the factors the greenkeeper must consider when planning his course work to get greatest economy and performance from a proper division of machine and manual work.

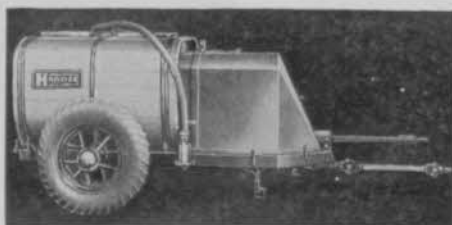
LET us review labor costs on the average 18-hole course just before the depression. Then there were no 7-unit fairway mowers, very few power putting green mowers. Sickle bar mowers attached to tractors were mostly failures in that they were either too great a strain

on the part of the tractor to which they were attached, or the cutting bars themselves would not stand up under rough mowing conditions; so that on most 18-hole courses a crew of 9 to 10 men and sometimes as many as 12 had to be kept, especially if the club demanded a well trimmed layout.

In 1925 Donald Ross, golf architect, was called into our club to discuss some alterations. The green-chairman asked him how many men he thought were necessary to maintain a first class course. Donald answered, at least one for each hole. So you see if an architect lays out an elaborate course, with the thought in mind that it will have 18 men to maintain it, and then it turns out that only 9 men are supplied to do the work, the course will not look nor play the same as the architect visualized. If, on the other hand, the architect built a course with the idea in mind that only nine men would be needed to maintain it, and the greenkeeper had 18 men to do the maintenance,



Hardie engine-equipped outfits are available in many sizes. The Hardie Tractor Trailers are drawn and powered by golf tractors.



● A Hardie golf sprayer makes it easy and inexpensive to keep greens and grounds in tip-top condition. Spray for 'brown patch', apply liquid fertilizers to greens, insecticides to trees, shrubs and ornamental plantings.

Hardie alone offers a complete and varied line of specialized golf sprayers.

*Write for catalog and complete data*

**THE HARDIE MFG.  
COMPANY  
HUDSON, MICH.**

PORTLAND, OREGON  
LOS ANGELES, CALIFORNIA  
NEW YORK CITY

# HARDIE

**DEPENDABLE SPRAYERS**