

Now! A GOLF BALL WITH A DRY ICE CENTER



THE BIGGEST SELLER FOR 1935

"I want that ball with the *dry ice center*." That's what golfers everywhere are going to say. For here is the most revolutionary golf ball ever developed. It is the longest, truest ball that ever streaked away from a club head. And here's why.

In addition to a special liquid, the center of the MacGregor Pace-maker Golf Ball contains a scientifically calculated pellet of *dry ice*. And this does something that nothing else could do. It liberates carbon dioxide which expands and "pumps up" the liquid center. The ball becomes super resilient. The

more the club head distorts it on impact, the quicker it springs back into shape—and the farther it goes.

And that's not all. Outward pressure of the carbon dioxide keeps the center always "in round." It doesn't become lopsided—no matter how often the ball is hit. It stays true in flight and putts true on the green.

You'll have a lot of calls for this revolutionary ball. Be ready for them. Unquestionably it will be 1935's biggest seller. The Crawford, McGregor and Canby Company, Dayton, Ohio.

Macgregor
PACE-MAKER DRY ICE CENTER
 Golf Balls



Yank Team Reaps Harvest on Australian Tour



In far-off Australia these six Yankee golf aces have yet to be defeated by "down under" competition. They are shown here with their wives just before disembarking at Sydney. Left to right: Paul and Mrs. Runyan, Craig and Mrs. Wood, Ky Laffoon, Leo and Mrs. Diegel, Mrs. and Harry Cooper, and Mrs. and Denny Shute.

Photo courtesy "Golf in Australia"

SMART business management at this end of the trip and good play at the other accounted for the financial success of the 20,000 miles journey the American PGA team made to the Antipodes and way stations this fall.

The boys on the team split six ways evenly, by agreement. The windup was that each fellow collected around \$4,000 for his two months "down under." Meanwhile, Sarazen, Kirkwood and Ezar were picking up good pieces of dough and Jimmy Thompson, winner of the Melbourne open got \$5,000 for his win. These four were not team members.

Here's the dope on how the team did:

	Melbourne open	Melbourne match	Peninsula open
Diegel	\$2,000	\$2,500	\$ 500
Shute	50	1,000	62
Wood	150	500	125
Runyan ..	150	125	500
Cooper	312	125	62
Laffoon ..	312	50	37
	<hr/>	<hr/>	<hr/>
	\$2,974	\$4,300	\$1,286
Total, above 3 tourneys.....	\$ 8,560		

Taken at Honolulu.....	350
First match, Sydney.....	2,500*
Match at Melbourne.....	2,500*
Match at Adelaide.....	1,500*
Second match, Sydney.....	1,500*
	<hr/>
	\$16,910
Honolulu, on return.....	1,000
	<hr/>
	\$17,910

*—and expenses

Dividing this total six ways means that each member of the Yankee team will collect \$2,985, but you can add another grand to each man's take because the team was scheduled for 75% of the gross gate receipts at six matches in leading Australian and New Zealand cities, and there was some cash to be picked up for articles, store appearances, etc.

Expenses were light. Boat fare, first class, for each man was \$640, and while on location the team got all rail expenses save one jump from Sydney to Melbourne, about \$20 each.

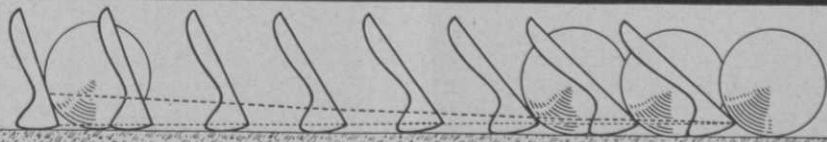
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**TIMES GREATER CHANCE
FOR A PERFECT IRON SHOT!**

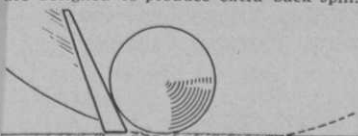


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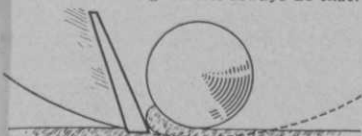
HAGEN DEFLECTOR SOLE IRONS



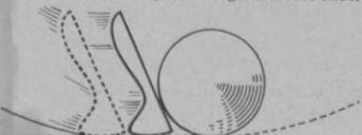
Above illustration—Lower dotted line denotes the elevation of front edge, graduating uniformly from No. 1 Iron to No. 8. Upper dotted line denotes contact of the club with the ball on all irons. Approach irons are designed to produce extra back-spin.



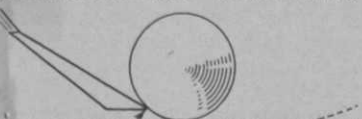
Above illustrates the accuracy with which a ball must be hit with conventional iron. Who among us can always do that?



Above illustrates what happens when you hit behind the ball with conventional irons. The club head digs into the ground—under the ball—producing a terrible shot.



Above illustrates what happens when you hit behind the ball with Hagen Deflector Sole Irons. Note how the club head slides on the ground. Result—a beautiful shot.



Above illustrates accuracy essential with a conventional iron to get back-spin—a tough proposition! Note that in top illustration No. 8 iron meets the ball in exact location for back-spin.

16 times greater chance for a perfect shot—that is exactly what you get with the new 1935 Hagen Deflector Sole Irons.

And it is all because the Deflector Sole, as Walter Hagen says, "increases your allowable range of error from 1/16" to a full inch."

It accomplishes that, because with Deflector Sole Irons, you can hit as much as an inch back of the ball and still get a perfect shot.

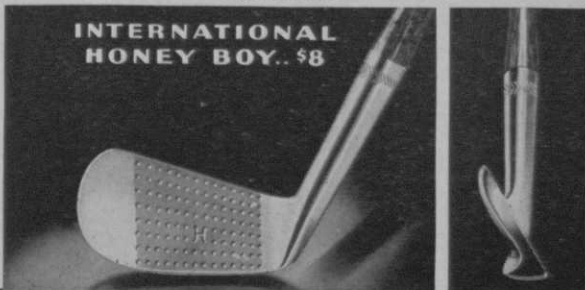
For the Deflector Sole, having its back edge lower than the front, slides or skids over the turf and into the ball. It does not dig in or offer resistance to the stroke.

The diagrams contrast the action of Hagen Deflector Sole Irons with the conventional type of iron and show exactly why, with Deflector Sole Irons, a golfer has sixteen times greater opportunity to improve his Iron game.

Get a set of these Hagen Deflector Sole Irons into your hands. You will be amazed at the added confidence they give. They are going to create a lot of business in 1935!

THE L. A. YOUNG GOLF COMPANY
DETROIT **Hagen Products** MICHIGAN

Choice alone dictates the playing of Hagen Clubs and Balls by both Professionals and amateurs.



Asks About Non-Golf Features for Fee Course Use

Editor, GOLFDOM:

We plan to install at our semi-public course various activities other than golf for the 1935 season and are writing for information. Our first start has been an installation of archery golf equipment; it is proving very popular.

In addition, we wish to put in a tennis court unit of some 4 or 5 courts. This, of course, must pay for itself, as all departments do on the course. Being a semi-public course means that we can have little accommodation activities and that all branches must be profit making.

We also wish to put in bowling-on-the-green, or some such similar sport. Trapshooting will be possibly the next idea.

What do you think of our plans, and what other activities can you suggest?

S. R. T. (Ohio).

Reply—

Bowling-on-the-green should work out very well for you. The cost of maintaining the bowling surface and the cost of the original equipment is not prohibitive; and on the other side of the picture, bowling green enthusiasts will turn out for a session of the sport as frequently if not more frequently than golfers do for a round on the course.

For complete information on bowling equipment and instructions on the construction of the turf area, apply to A. C. Spalding & Bros., 105 Nassau St., New York City and Brunswick Balke Collender Co., 623 So. Wabash Avenue, Chicago. There are other sources of information on lawn bowling, but these two should be sufficient to give you the information you will need.

A sport that has its greatest popularity in Florida and which would stand a good chance of proving profitable to you is shuffleboard. There are numerous manufacturers of cues, discs and score boards. We refer you to the Brunswick-Balke-Collender Company of Chicago, Daytona Beach Shuffleboard Co., Philmont, N. Y., The Shuffleboard Equipment Company of Napanee, Indiana and Alex. Taylor Co., 22 E. 42nd St., New York City.

If you feel that your course can attract sportsmen willing to spend a little more money it is quite possible that a trapshooting layout would prove profitable. I would suggest that you consider the installation of a skeet layout rather than straight traps inasmuch as this newest

form of trapshooting seems to be gaining rapidly in popularity; it reproduces most accurately the surprises of open field shooting. If you are not familiar with skeet and the sort of layout required for it, write the Western Cartridge Co., East Alton, Ill., who have issued a very interesting book on this subject.

The official handbook of skeet can be obtained from the National Skeet Shooting Association, 108 Massachusetts Avenue, Boston, for 25c. E. I. DuPont de Nemours & Co., Sporting Powder Division, Wilmington, Del., has also issued a book on skeet and trapshooting.

In the matter of tennis, properly constructed tennis courts cost considerable money. Suggest before you commit yourselves to an installation of a tennis court that you investigate pretty thoroughly the probable patronage these courts would have and the income that would result. Naturally, the number of courts available in your immediate area would have considerable bearing on your decision.

Oakmont Cup Seeks Best Golfer Through Nassau Tourney

A tournament that "is different" is the way golf writers are characterizing the Oakmont Club Cup event, to be played at Glendale, Calif., Jan. 31 to Feb. 5 for a \$6,500 minimum purse. It is different in that the event will be partly match play and partly medal play. The tourney will start with the customary 72 holes of medal competition. The low nine of the 120 qualifiers will go into Nassau or round robin play, four rounds of 18 holes each. Each man of the nine will eventually meet every other man. Play will be in threesomes, and scoring will be by points, 2 for the first nine holes, 2 for the second, and 2 for the 18. Thus a maximum of 12 points can be won by a competitor each day.

An interesting feature of this sort of competition is that a player can have a bad round and still not be frozen out of all chances to win. Of course the nine men who will enter the round robin must make good during the 72-hole medal play, but once they have a place assured, poor play on any one of the four days of competition remaining will not necessarily put them out of the running.

Oakmont officials claim that form of tourney is the only one that will reveal the best golfer in a field, since a player must excel in both medal and match play to come out on top.

GOLF'S FINEST

now

**TOUGH!
TOUGH!
TOUGH!**



With its new Armor plate covering, Worthington's Sweet Shot for 1935 leads the parade of the better balls for toughness. Its Armor plate cover is tougher than any material we have ever before known for golf ball cover—it is literally tougher than rawhide—and that without the sacrificing of one inch in distance.

Try it yourself. Give it some real punishment. If this great

ball isn't finer and tougher than ever before, write us.

Our 1935 line for professionals includes the Sweet Shot at 75c; The Arrow at 50c; and the Worthy at 3 for \$1. These balls are "sold only by golf professionals."

Write us today for complete information. Worthington Ball Company, Elyria, Ohio.



WORTHINGTON
world's largest exclusive
GOLF BALL MAKER



Frisco Open at Presidio, January 24-27

PRESIDIO GOLF course will be the scene of the San Francisco Junior Chamber of Commerce's fifth national match play open, January 24th-27th. A field of 225 ranking professional and amateur stars have entered.

This year the committee made some major changes in the administration of the tournament. First, it shifted the scene from Lake Merced to the Presidio Course. This year, too, the committee decided to limit the field of qualifiers to 32. It has been 64 in the past. And, most important to the backers, the method of financing the tournament was drastically changed. Here is the plan. It's a good one, and maybe a welcome tip to other tournament managements:

Instead of a campaign to sell season tickets, all gallery tickets will be on sale at the course. The \$4,000 purse for professionals is underwritten by 200 San Franciscans. Each guaranteed \$20. If, after the expenses of the tournament are paid and the purse distributed, there is a surplus on hand, it will be divided among the guarantors on a pro-rate basis. In addition, of course, each is given a season ticket.

For the medal play qualifying round, the winning pro will get \$125. Second man wins \$100, third, \$65, fourth, \$40. Numbers 5 to 32 have to be content with qualifying for the match play, but the first 17 eliminated players will be consoled with \$20 each. To the winning professional will go \$750; to the runner-up, \$400. Semi-finalists will take \$300 each, and the next 28 will divide \$1,560. As usual, the lot of the amateur is a cup.

British Fight Drought Too, Report Shows

LAATEST issue of the *Bulletin* of the Board of Greenkeeping Research, British Golf Union, has just reached this country. The number contains the usual wealth of practical articles on greenkeeping. From the American viewpoint, perhaps the most interesting fact the report brings out is that British courses have been fighting a drought just as severe as the one that harrassed American courses last summer.

Interesting articles in the issue deal with water problems of golf courses, greenkeeping on clay soils, and forking as an aid to turf recovery from drought.

There appears also an exhaustive article on *Agrostis tenuis*, commonly called brown-top in England and known in the U. S. as Rhode Island bent, Prince Edward Island bent or Colonial bent.

Copies of the *Bulletin* may be obtained for 2 shillings, sixpence from the Director, St. Ives Research Station, Bingley, Yorkshire, England.

Wisc.-Minn. Greensmen Close Year in Joint Meeting

WISCONSIN and Minnesota greenkeepers concluded last season with a well attended joint meeting at Eau Claire which tipped off the fellows that these sessions in other parts of the country could be depended on to draw fellows within the radius of a fairly good drive.

More than 30 greenkeepers attended. Wm. Baumgartner, green-chairman of the Hillmoor GC, welcomed the greenkeepers and told them that many of the complaints they receive really are insignificant but call for diplomacy in handling. Prof. Larsen of the University of Minnesota, O. J. Noer and Earl Barrows spoke on technical subjects. Larsen and Barrows discussed the density of good putting green turf and Noer giving the fellows highlight observations of greenkeeping practice throughout the country.

Pros Plugging for Winter Course of Their Own in South

THERE'S talk again about the pros having a winter course of their own some place in the Southland. Fellows whose jobs are of seven months' duration in the North want to go South with the families, visit, play golf and live on what income they have been able to make at their Northern clubs—without doing away with all of their savings.

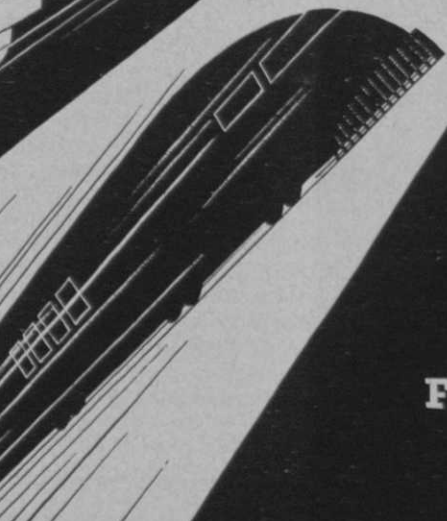
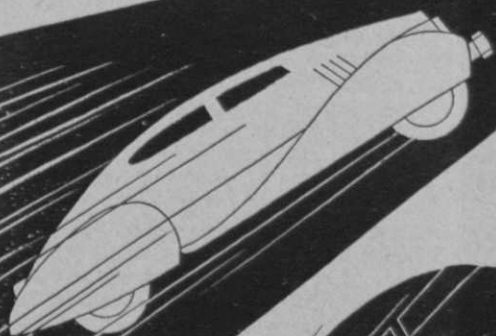
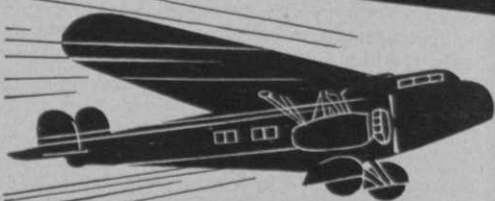
At several Florida courses, especially in Miami attractive propositions are made to pros for winter memberships but the pros at these courses have about the world's toughest jobs keeping a mutually satisfactory balance between local residents whose year around business is the foundation of the course business, and the visiting pros.

It has been proposed unofficially that the pros make some deal for a pro course through the PGA with a small town chamber of commerce. There would have to be some nucleus of a first class course handy, good living facilities at moderate costs and schools.

AND NOW

THE *Streamlined*

GOLF BALL



FULL DETAILS
NEXT MONTH

HOW COURSE TRAFFIC AFFECTS MAINTENANCE COSTS

THE MAXIMUM maintenance capacity of a golf course may be defined as the maximum turf condition at minimum cost, which is somewhat controlled by the standard of maintenance at which you wish to hold your course, which in turn is governed by club finances, demand of the governing body or competition from outside courses. The maximum playing capacity of a golf course is the maximum number of rounds possible to play. The relationship between the two is the effect the number of rounds have on upkeep cost and turf condition.

Every greenkeeper knows, when he designates a man to a certain job, that it requires more time to complete that particular work when there are many players on the course than when there are few. But does he know how much longer; does he realize that some operations have a greater percentage of lost time than others?

I have kept records for some time on the effect the number of rounds have on the cost of maintenance of my own course, and while attending the advanced Greenkeeper's Class of 1934, at the Massachusetts State College, I was encouraged by

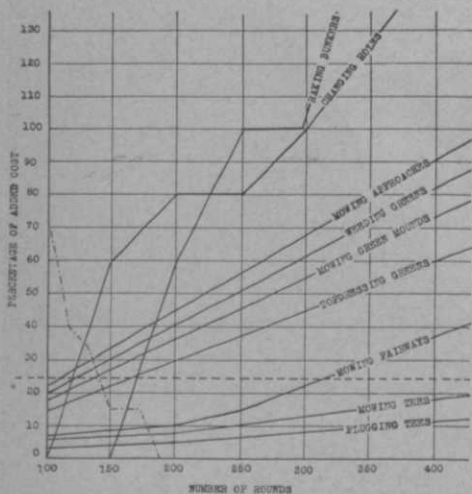
Professor Dickinson to compile my records, and put them in chart form.

The Banff Springs course is strictly a hotel summer resort course, in the Canadian Rockies, owned and operated by the Canadian Pacific railway and catering to travellers from all parts of the globe. They demand a certain turf condition regardless of the amount of play. In my own mind I have been compelled to work out a relationship between play and maintenance which gives me a measuring stick of the actual increase in cost a tournament, a heavy week or a season's play will create. The results I obtained regarding the unproductive time or added cost of different operations has been surprising and significant. I did not realize the time lost mowing approaches was almost five times as great as mowing tees; I have eliminated mowing approaches during play.

This data which was compiled on my own course from actual timing and averaging of the different major operations are represented on the chart. Horizontally are number of rounds per day, vertically the added cost the number of rounds create.

Note the line of plugging tees is somewhat lower than mowing tees, due to the fact that in plugging tees the entire time charged to that operation is not spent on the tee, a considerable part of the time is spent on obtaining the plugs and hauling to the various tees; whereas, in mowing tees the entire time is spent actually on the tee; therefore the unproductive time created by play is greater.

In mowing fairways the added cost gradually increases as play increases until we reach the point of 250 players when the added cost goes up more rapidly. Play at this point becomes congested and quite frequently the operator is held up doubly. At times he waits for one group and before he can proceed another group is playing. Consequently the unproductive time is greater, although this added cost would be still greater if we did not route the mowers properly. This chart gives the



BY CASPER M. McCULLOUGH
Supt. Banff Springs Hotel G. Cse. Canada

Mole Cricket Extermination with Frogs Unlucky

WHAT gave early promise of being a successful venture in exterminating the mole cricket that does much damage to Florida courses ended unfortunately at Jacksonville. The exterminators were exterminated. W. H. Klee, of the Nitrate Agencies at Jacksonville, tells the sad story:

"The mole cricket originally caused considerable damage in Puerto Rico to grasses and vegetables. Poisons were too expensive and a frog from Africa, known as *Buffo marinus*, was imported. Results were astounding in the elimination of the cricket.

"Florida infestation of the mole cricket centered around Ortega, near Jacksonville, at which place the Florida CC, oldest club in Florida, has its golf course. Several years ago the cricket did very considerable damage, particularly where Bermuda Grass was grown. Poisoning was a very expensive proposition, particularly in the distressed financial condition that confronted a lot of golf courses.

"Our Mr. Bob Simms, who not only is

a good fertilizer man but an enthusiastic golf player, knew of the success in Puerto Rico and we imported by air mail some 13 *Buffo marini*. The arrival of the frogs created considerable interest and they were released on the golf course. There were definite evidences of the frogs consuming large quantities of crickets.

"We became thrilled over the almost immediate propagation of the *marini*, of embryo *buffos*. What actually happened was that the original shipment of frogs disappeared, either through their being eaten by snakes prevalent on our course, or by pot shots taken by various members or caddies who seem to delight in killing any living thing on the golf course and, sad as it proved, all our *polliwogs* died an untimely and too young death.

"The net result was that *Buffo marini* did not show any real net worth to us in eliminating the mole cricket. Thus ended an experiment that promised lots of interest and potential profit. (The profit would have accrued had the experiment, both in killing crickets and in propagation, been successful. We had tentative orders for lots of pairs of the African frogs.)"

Everything

for economical course upkeep

in the NEW

J. Oliver Johnson Catalog

If it has proven its value and thrift in the maintenance of golf courses, you'll find it in this newest and most comprehensive of Johnson catalogs. A RELIABLE guide to RELIABLE supplies and equipment—a call book for speediest service—direct from the world's largest source of supply.

Send for your copy today.

J. OLIVER JOHNSON INC.

World's Largest Golf Course Equipment House

940-960 W. Huron St., Chicago, Ill.

Phone Monroe 6580

added cost with no interference from play three hours each morning.

In topdressing greens the entire time is not spent actually on the green, as a considerable percentage of the time is spent mixing and hauling material, although the added cost is considerable, plus the inconvenience to the players.

In mowing green mounds, the type of course has an important bearing on the increase in cost. On the Banff course a considerable portion of the work has no lost time, as the workman is out of the line of play and has very little interference from the players.

Mowing approaches give a greater percentage of lost time than most major operations, since the workman has to stand aside during some fairway shots, all approach shots and all putts, plus part of the time players are walking from their approach shots to the green.

In raking bunkers the actual unproductive time is very little, but the increase in cost that play creates is very high, although fortunately for the greenkeeper there is a fluctuation in the standard of condition. As indicated on the chart, there are times when the condition of the traps will be a great deal lower than others.

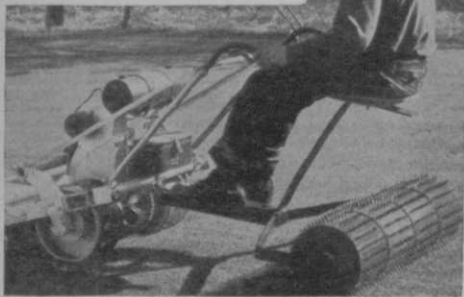
The added cost in changing holes due to volume traffic is also very high.

The benefit of working out such operations as indicated on this chart is shown by the heavy line running diagonally from 70 vertically to 187 horizontally, which is worked out on the principle that I operate my course with an expenditure equal to

When your trouble comes, spike and mat your greens. Do the whole performance with one man and save labor.

Easily attached to any power unit.

We also carry hand rollers.



CHARLES ERICKSON

2816 Colfax Ave., South, Minneapolis, Minnesota

the actual cost of maintaining the course without players plus a 25 per cent margin of safety, (dotted line) which takes care of the added cost created by play. With 100 players per day I have the difference between 25 and 67 or 42 per cent of my budget for that day which I can save or play around with as I see fit. When play increases to 117 I only have 17 per cent with which to make improvements. With 137 players I have 9 per cent not required to actually operate with. When the play reaches 140 I am operating to the full capacity of my budget. With 150 players I am operating 8 per cent above my expenditure allowance in order to hold the course at the present standard. With 167 players I am still only operating 9 per cent beyond my budget. When play reaches 184 I am operating 25 per cent above my allowance, or there is 25 per cent of the work not being done.

This data should interest every greenkeeper, pro-greenkeeper, green-chairman, or anyone interested in club finances or course condition, and when worked out will prove very beneficial on any course regardless of its location, condition or class.

ARMOUR TO DESIGN CLUBS FOR MacGREGOR

Dayton, Ohio—It takes two people to produce a contract and usually they both agree to do certain things. In this recent



Tom Armour signs with Crawford-McGregor & Canby, while Ed Canby II, v-p and adv. mgr., and H. B. Canby, pres. look on.

merger of ideas and craftsmanship just this sort of a contract was drawn up and signed.

It appears that Tommy Armour, the undisputed maestro of iron play, agreed as party of the first part, to actually design a new line of golf clubs which would embody all the secrets which brought him fame. The other signer, H. B. Canby,