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NEW



Exclusively Pro
Synthetic Rubber
GOLF BALL

Tops in Its Class

FOR 42 years we have made golf balls exclusively—millions of them. In turn, millions of average golfers, and the par shooters in both Pro and Amateur ranks, have chosen to play Worthington balls year after year, because they excel in performance and durability—and therefore in value.

Whatever material, specification or construction was required at any particular period, Worthington Golf Balls have ranked tops. This is true now, as it has been since 1904. Our new Exclusively Pro (Tuffball) Synthetic Rubber Golf Ball is tops in its class.

Quantities are limited. For information write or telephone, Elyria 2361.

THE WORTHINGTON BALL COMPANY
ELYRIA, OHIO

WORTHINGTON

WORLD'S LARGEST. EXCLUSIVE GOLF BALL MAKER

"Triplex" mower. These mowers completely fill the gap between the tractor mower of the 3-gang or more type and the hand mower. In fact, it is possible to mow practically all areas with these "Triplex" mowers that can be mowed with hand mowers. At our Skokie Playfield course at Winnetka, we purchased one of these mowers in 1937 and eliminated all hand mowing with the exception of approximately one hour's work per week in the vicinity of the clubhouse and tennis courts.

As regards golf course tractors the room for choice is great, including the regular golf course tractor and the light-weight farm type tractor. It is possible to purchase many attachments for these tractors, and they can be put to so many different uses.

As regards the selection of the farm type tractor, I think it is well to heed a farmer's advice on this. Briefly summarized, it was this: Most of the present-day tractors are good and their performance is satisfactory. What is more important, consider the attachments which you contemplate using, study those. Buy your tractor on the basis of the attachments you are going to use.

Attachment Use Increased

One very useful attachment and not too expensive is a light loader, similar to the loaders used on contractors' bulldozers, but of lighter construction, designed originally, I believe, to load manure. It is adaptable to many uses, loading topsoil, rubbish, sand, gravel, etc. Another attachment is the snow plow, besides serving in its intended capacity, it makes an excellent bulldozer for use in filling ditches, piling topsoil, etc.

Another tool which has been somewhat revolutionary, though not used to any great extent is a sand trap rake. One style of this rake was developed by the superintendent at the Bob-O-Link GC in the Chicago district. Visiting a country club in the Chicago district the other day, I noted another sand trap rake which was built at the course, by the greenkeeper, and which he claims is superior to the one built by the superintendent at Bob-O-Link. This greenkeeper stated that by using the rake it was possible to recondition the traps in from 12 to 15 hours as against 38 to 44 by the hand method previously employed.

Still another small tool, which has met with considerable favor and was introduced a year ago or so prior to the war, is designed to lift ball holes from the putting green surface. Selling for \$7.00 it would pay for itself in one week.

The power sprayer, which has become almost an essential item in first class

course maintenance, will in all probability be improved. Its use on the golf course will be increased with the new insecticides, fungicides and herbicides which will be available.

Probably the most revolutionary of the new insecticides is D. D. T. With this, it should be possible to eliminate the common house fly and mosquito from the clubrooms, garbage disposal areas, dumps, etc. Insecticide people tell us it will not replace the pyrethrum and rotenone insecticides. We secured a 5 percent solution of D. D. T.; painted it on the screens at the clubhouse porch. I can testify that it worked. For a week or so afterwards we swept flies from the floors and there was a noticeable absence of flies in the clubhouse after using it. It is a wonderful product and one that answers a long-felt need.

Another revolutionary discovery from the standpoint of golf course maintenance and one which is of interest to everyone, all park men particularly, who are interested in maintaining weed free turf is the discovery of the use of growth regulating substances as herbicides and particularly the compound (2,4-D) 2, 4-Dichlorophenoxyacetic acid.

This 2,4-D compound promises to be the answer to the greenkeeper's prayer. With this it apparently is possible to eliminate three of the most obnoxious weeds on the golf course—the dandelion, plantain, and buckhorn. Favorable results have been obtained with clover and lawn pennyworth. It is also effective on such weeds as wild mustard, wild onion, purslane, ragweed, burdock, yarrow and Canada thistle. And with no apparent injury to the blue grass lawn, though bent grasses are very seriously injured and quite frequently killed by this chemical. Clover control on putting greens has been accomplished by the use of this chemical at approximately one-half the regular rate, repeating the treatment two or three times.

I inspected two golf courses last summer where test treatments had been made in the spring on certain fairways and rough areas. From the results of this one treatment there was approximately a 100 percent kill insofar as dandelion and plantain were concerned. Check areas left nearby were full of strong, healthy dandelions, the rosettes in some instances being 10 to 12 inches in diameter. In the treated areas all that remained were a few dried and shriveled leaves and the hole where the dandelion tap root once flourished.

2,4-D Results

We purchased 40 pounds of Weedanol, at a cost of \$52.00—a cost of approxi-

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“in the Name of Perfection”





NEW HAGEN POLICY

A Tribute to Golf Professionals

This 1946 Walter Hagen line of golf equipment has been designed and built, with the aid and counsel of "The Haig" himself, "in the name of perfection."

We are happy to announce that a new policy will guide the marketing of this truly great line. As a tribute to America's Golf Professionals—

THE *Hagen Line*
is now a "Professional's" line
to be sold through
PRO SHOPS exclusively

This means that now, *for the first time*, you can feature a complete line of golf equipment having behind it the prestige of a famous star and personality in golf, and available through *Golf Professional Shops only*.

The combined experience, skills and expanded facilities of Hagen technical men and craftsmen, give you complete assurance that the Hagen Line will live up to its ideal—"in the name of perfection"—and at the same time offer price ranges suited to your needs.

Hagen Golf Equipment—an exclusive "Pro" line, to be sold only through the Golf Professional Shops of America—is a great line with which you will do great things we are sure. But the final success of this "Pro only" plan rests with you, too. Your cooperation is very important. May we count on *you*?

EXECUTIVE MANAGEMENT
WALTER HAGEN GOLF

For the First Time

A STRICTLY "PRO" LINE

To my fellow golf professionals:

Here is the most exciting news I have ever been able to bring to you: the Walter Hagen line of golf equipment is to be sold through *the golf professional's shop exclusively*.

For years I have dreamed of a line of equipment bearing my name and a policy of distribution that would exactly meet the needs of professionals—needs with which I am so intimately familiar because of my many years of association with professional golf.

Now—due to the new conditions under which I will work—with facilities at my disposal that I have never had before—modern laboratories, skilled technical men and an opportunity for field work—my dream *is to be realized*. It will mean . . .

A line of *Golf Clubs* that are precision-built to the highest degree and with price ranges you will appreciate. A line of *Golf Balls* that are tops today in every price bracket. A line of *Golf Bags* from which you can satisfy any member. It's a *dream* line in quality, variety and pricing policy.

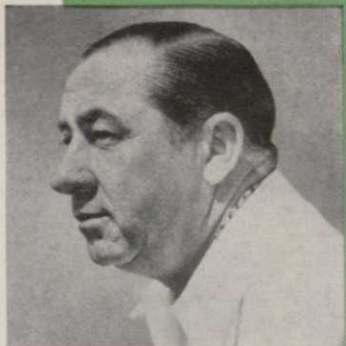
Believe me, not one Hagen *club*—not one Hagen *ball*—not one piece of Hagen *leather* goods will be available except from a Golf Professional's Shop.

The merchandise available for distribution during the next few months will be limited only by materials and labor. But you may be assured that *everything* we produce will be for you *exclusively* and the quantities will be apportioned on a fair basis.

It is a proposition the like of which has never been offered the Golf Professional before. I'm sure I can count upon you to cooperate with this new "Pro-Only" plan.

Golfingly yours,

Walter Hagen





THE
Hagen Line
OF
Fine Golf Equipment

for PRO SHOPS exclusively

Hagen Golf Clubs

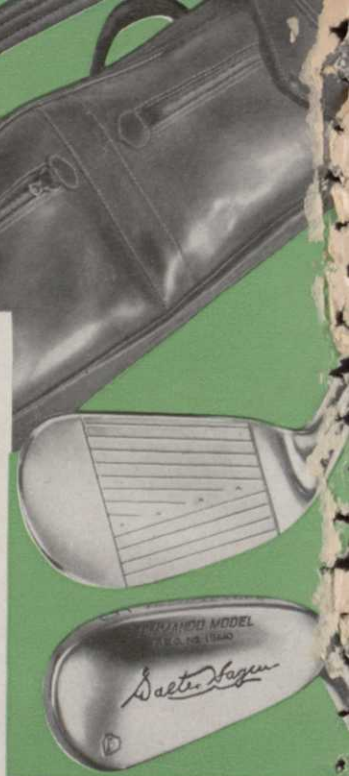
Hagen Golf Balls

Hagen Golf Bags



WALTER HAGEN GOLF
Grand Rapids 2, Michigan
Division of Wilson Sporting Goods Co.

"In the name of perfection"



Modernize Your Course for Machine Maintenance

By T. T. TAYLOR

Westchester Country Club, Rye, N. Y.

TO INCREASE efficiency of both present and future equipment, we should consider modernization of the golf course as well as our maintenance operation. To do this, we should modernize our own ideas, abandon prejudices, and discard any traditional practices which have outlived their usefulness. We should be prepared to give new ideas every opportunity to succeed by encouragement and a fair trial.

I think the war period has demonstrated that we can do this, for I dare say that every golf course superintendent has taxed his resources and explored every possibility for efficient maintenance.

We were short manpower and we were forced to go into the employment of school boys. We converted hand green mowers to power mowers by the installation of Briggs & Stratton motors. The pawls and the drums were reversed, making the drum power-driven also. A lot of you men have done this. It is nothing new, but there is another suggestion which you may not have tried and which I have found will at least reduce the cutting operation by 25 per cent.

In turning these machines over to the school boys we found some of them that didn't quite adapt themselves to it, and very frequently they would run off the green and tumble into a sandtrap—machine, boys and all. The solution to that seemed to me to be to make that machine a little more maneuverable when you got to the end of the swath at the edge of the green and turned it. We solved the problem by using an eight or ten-inch pneumatic tire wheel, which was fastened on a bracket at the rear end of the mower. As you got to the end of the cutting strip and pushed down on the handle, instead of the motor dropping or remaining on the drum, it rested on the pneumatic tire wheels. There was no necessity whatever for reducing the gas or throttling the machine down. It stayed in gear. You merely turned the machine on these wheels and started back in the other direction. There was no loss of time whatever in the turning operation.

Equipment Speeds Topdressing

We did not wish to discard our topdressing program entirely, yet it was not

possible to continue that operation with 8 men when you normally had 25 to draw on. The answer to that then was to rig up mechanized equipment out of the material we had at hand. We were fortunate enough to have an old green tractor; that is, one of the Overlawn machines, and we projected into the front of that machine three wire brushes, operating independently, one of the other, to follow the contours of the green. The topdressing was taken out early in the morning, when we couldn't topdress the greens anyway because of the dew, but while the greens were drying out the topdressing was spread on the top of the tarpaulin so the sun could dry it out, and in this manner we were able to get the material to such consistency that it would flow freely through a topdressing machine. We followed this up with the topdressing apparatus I have just mentioned.

Behind that Overlawn was a steel mat so that as you brushed in the front, you matted in the rear. By going over the green twice, you got all the material that you wanted down into the grass, and only the debris remained on the top. To eliminate further hand operation, there was no sweeping required, because we used snow-pushers. I do not mean snow shovels. Perhaps some of you are familiar with the ordinary snow-pusher in which you have a curved metal piece in front with a handle in the rear, and two or three men, one behind the other, would take this snow-pusher and push it across the green, and you had a lovely finished surface by the time you were through. We cut our topdressing operation by 75 per cent.

We found that by cutting the rough with the fairway machines it was necessary in some instances, where of course the grass got a little ahead of us, to go back and forth over the same area 2, 3, and maybe more times in order to get that turf down. However, we were fortunate enough to have 6-bladed rheos. So we took out every other rheo, making a 3-bladed machine, and where before we used 3 and 4 times the amount of gasoline, to cut that grass, with the 3-bladed machine we cut down the highest grass we had by going over that once. Thus you can see not only the manpower saved and the wear and tear on equipment, but also the gasoline

(Continued on Page 58)

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Previewing New Materials for the Control of TURF DISEASES

By

HARRY L. KEIL and FRANK L. HOWARD

Contribution No. 680 of Rhode Island Agri. Experimental Station



Dr. Harry L. Keil

WHICH NEW fungicides will the greenkeepers find most useful?

Chemical laboratories are releasing a steady stream of new products designed to control diseases on agricultural crops, and included are many compounds potentially valuable for golf courses. In the past, fungicides have not been developed especially for turf grasses because other crops required greater volumes of these materials. In addition, there have been too few facilities for comparing the disease controlling powers of fungicides on golf courses and lawns, supervised by qualified scientists.

Research on turf diseases has been in effect and is being carried forward at the Rhode Island Agricultural Experiment Station. The Greens Section of the USGA is collaborating, together with a voluntary group of greenkeepers all over the country who conduct the final trials on their courses. It is evident, that tests made in one location, with a given set of growing conditions, cannot be applied everywhere in the United States, and that all turf diseases are not present in Rhode Island. However, this project is a beginning in bridging the gaps between the chemical laboratory, the manufacturer, and the practical, effective use of the fungicide on the playing green or lawn. The prevalence of fungus diseases differs on the several greens of one golf course, and in the different climatic and cultural conditions of various sections of the country. This alone precludes the development of a single material that will satisfy everybody.

As the investigation progresses, the Utopia of discovering one fungicide which will control all the diseases all the time is gradually fading. This means that turf superintendents must learn to diagnose the various diseases by recognizing the typical symptoms and signs, and treating accordingly with proper chemicals.

Laboratory Tests

The first step in assaying new products is to screen them in the laboratory and greenhouse. Every year, more than 100

especially synthesized chemicals are tried for fungus-killing power, for toxicity to plants, and for ability to combat fungi regardless of weather conditions. These tests eliminate some materials, and give ideas as to how others may be improved by the chemists. Such laboratory experiments, within a relatively short time, yield results that would require months or years of tedious work in the field.

Field Trials

Following laboratory screening, perhaps 10 new formulations appear good enough to try on plots in the field. The trial grounds are so designed that 5 replications of 24 fungicides can be compared on each of 4 different bent grasses. Adjacent large blocks of Piper velvet, Colonial, creeping C-15, and creeping C-19, differing in susceptibility to disease fungi, are used. Random scattering of the chemical treatments over the area in part compensates for variability in the incidence of disease. Untreated blocks serve as controls. Since the effective dosage of the chemical to use is unknown, a geometrically progressive dosage series is applied at rates such as 1, 2, 4, and 8 ounces of toxicant, in 10 gallons of water per 1000 square feet. This, to a large extent, removes the guess work from determining what amount of fungicide will give the most complete control when applied at stated intervals.

New Chemicals

This project has already demonstrated the specificity of fungicides, both old and new, for those fungi which cause turf diseases. One fungicidal chemical Isonol DL1—makes the "poling" of greens unnecessary for at least 5 mornings after it has been applied, because it keeps the dew drops from sticking to the blades of grass.

Several types of fungi inhabiting the soil may cause damping-off of the young plants; the damage being noticed when the

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IT'S WILSON TODAY IN SPORTS EQUIPMENT



Let's all boost the "War Memorials That Live" campaign to commemorate our war heroes.

