

seed mixture. Fairway watering made a bad matter worse, especially after the development of high pressure systems capable of applying 500 gal. per minute or more.

Courses with some bent in the fairways before watering started and where water has been used judiciously in conjunction with an adequate quantity of fertilizer have good fairways which are pleasing to the members. But where water was considered the only answer to good turf, coverage in fall and spring becomes *poa annua*. In summer, clover, knotweed, and crab grass are bad, and the turf is unfit for play. Renovation involving the use of sodium arsenite and reseeded has been the answer at some clubs. But the problem of better fairway turf is still with us.

Top-dressing practices accounted for some of the troubles on greens in the past. The use of straight materials such as sand, peat, and clay, produced layers. They caused wilting in hot weather because grass roots did not grow through them at such times. Dressing with sand was imported from Britain. Much damage resulted from its use here before it was realized that the practice was a bad one. Manure compost was considered a must for top-dressing mixtures until manure supplies vanished. Until recent years greens were top-dressed every four or five weeks. The mixture changed and finally consisted of approximately one part good loam, two parts sharp sand, and one part humus. Modern practice is to top-dress once or twice a year at the most. It is prompted by material scarcity and high cost of labor.

Fertilizing Revolutionized

Fertilizer practices have been revolutionized during the past quarter century. Originally greens were top-dressed with a mixture containing manure compost. They received an occasional dressing of bone meal. This provided some of all the elements needed but did not furnish an adequate amount of nitrogen. During the acid era, which died with the grass in 1928, the use of lime was frowned upon and sulfate of ammonia was the only fertilizer used outside of top-dressing. The aim was to make the soil acid and control clover and weeds that way.

Modern practice is to use lime and not let the soil become more than very slightly acid. Enough phosphate and potash is applied to replenish the amounts removed in clippings and then enough nitrogen is used as needed to maintain a uniform and continuous growth.

Fungicide Progress

Dollar spot, brown patch, and snow mold were the original turf diseases. Dr. John Monteith identified the casual organisms and showed that fungicides con-

taining mercury would prevent them. The mixture of two-thirds calomel and one-third corrosive sublimate was developed as a result of his research. Organic fungicides containing mercury were developed and marketed by duPont and Bayer under the trade names of "Semesan" and "Uspalun".

Pythium and leaf spot were recognized and described at about the same time. Up to now no good fungicide has been developed for them. Pink patch and copper spot are diseases of more recent identification. Some of the newer fungicides are said to control them as well as the other diseases. Tersan, formerly called "Thio-san" is a favorite with some for brown patch because it does not harm the grass like corrosive sublimate. In trials at Milwaukee it controlled snow mold when applied at rates which furnished four ounces per 1000 square feet of actual active ingredient. The other newer fungicides include phenyl mercury acetate, cadminate, 531, and Crag. Others are in the process of testing. A number of greenkeepers resort to light dusting with hydrated lime when brown patch is severe. They use it also for algae. The contention that dollar spot is aggravated by too little as well as too much nitrogen seems to be conceded.

Lead arsenate remained the only control for grubs and worms for many years after the findings of Leach. Now DDT, Chlordane, etc. are replacing it. Quick kill of grubs is one thing in their favor, and they appear to persist for three to four years at least. The answer to the stink worm was found by John Schread of the Connecticut Station. He worked out a satisfactory control with Chlordane.

Fairway turf is still the big problem in many parts of the country. Some have found the solution with bent, others think Merion blue grass the answer, and still others favor a mixture of warm and cool season grasses. The problem is an important one and deserving of serious consideration. Besides the matter of grass, there is the problem of *poa annua*, clover, chickweed, and knotweed infestation. They are probably incidental and will disappear as such when the right kind of turf is developed. It must satisfy the golfer and not be too exacting from the standpoint of maintenance.

For fifth year John Samuel Clapper memorial fund contribution of \$500 transmitted by USGA Green Section to University of Rhode Island for turf research at R. I. Experimental station. Fund was established by Orville Clapper as a memorial to his father, widely-known pioneer in golf maintenance equipment manufacture.

Inventory of Sales Ideas Finds Pros Well Stocked

By **HERB GRAFFIS**

With the sharp rise in the price of golf playing equipment that's come with inflation and the increase in prices of raw materials and wages, pros have been paying more attention to their inventories than ever before.

It only takes the past two years' experience to remind a pro that when his year's business begins he has an inventory of from \$5000 to \$15,000, represented by cash or credit, in his shop and that he has to use his head to come out in the black.

He knows that the member who bought a set of irons from him the previous year probably won't be buying another set for five years unless there are some drastic changes in design and construction. The pro knows he grossed about \$30 on that sale—and netted a whole lot less—so the sale represents a net income of less than \$6 a year from the purchaser.

The pro wouldn't be nearly as good a businessman as the members who hired him if he doesn't give some thought to what he should average in sales per member. Some members, of course, won't come up to the average the pro considers is proper for the job, but others will go over. The same average income per capita should be estimated per player on public or semi-public courses.

Only experience and careful consideration of previous year's sales, lesson and club-cleaning income will enable the pro to determine what his average per player should be.

The figure, which really is sales per for the course, is significant because sometimes the pro realizes that it may tip off who may need more attention—or who's been buying well above the average but has been getting a good, but not special, amount of attention. Consideration of that phase is another good reminder to the pro as he knows it's always dangerous and usually costly to "play pets" among his members.

Then the pro may suddenly realize that it takes a lot of brains and good judgment to be a successful pro.

Brains In Pro's Inventory

That brings you to the biggest item in the pro's inventory; brains.

The more I get around among pros the more I am made aware that many of them are really exceptionally good small

retailers. They use their heads as well as their muscles to make money for themselves and advance their clubs.

Some cases of astute pro business operations that lately have come to my attention include that of Eddie Burke at Woodridge CC, New Haven, Conn. Eddie's members are strong for encouraging the caddies. The caddies want good clubs. So the members buy from \$500 to \$700 in prizes—mostly clubs—from Eddie's shop as caddy tournament prizes.

Another case is that of Ellsworth Vines at Wilshire CC, Los Angeles. Ellie is a brainy golfer as he was a brainy tennis star. He was heady enough to get into the semi-finals of this year's PGA championship, although he had to outsmart a back injury all the route. At his club when he sees some fellow who's using clubs that are so old the player has outgrown them and they're a definite handicap to the player's game, Vines sends the member a reminder card discreetly tipping off the player to a set of new clubs that can be bought, several months after the rush is over, at a price that gets Ellie out with a profit, converts inventory into cash and gets the owner of the new clubs playing more golf.

Catching Customers Young

Then there's Jim Thomson, in his 33rd year at the Mohawk CC, Schenectady, N.Y. Jim never overlooks a chance to encourage youngsters around the club. A lot of the times the kids probably were nuisances but after 33 years many of them have become excellent and firm customers.

The idea that pros might be slow about spending a buck to make two has pretty generally vanished. The way pros use newspaper space now shows fine examples of effective use of small space. For instance, there's Bill March at the Elk's CC, Ft. Wayne, Ind. He gets many who are beginning golf—or thinking of taking it up—with a small ad in Ft. Wayne newspapers which reads:

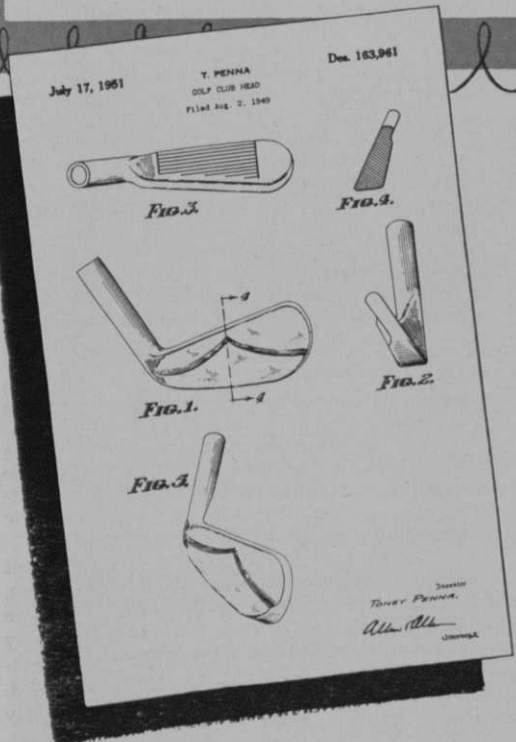
BEGINNERS—Don't buy a cheap set of golf clubs to see if you like the game. Likely as not you'll never enjoy the game if you start with unbalanced and poorly fitted clubs. Buy a set of used but expertly reconditioned Pro Model clubs. They don't cost much and they are exactly fitted to you.

*Your guarantee
of golf club perfection*

Tourney golf clubs
and balls are sold
only through golf
professionals.



**U. S. PATENT OFFICE GRANTS DESIGN
PATENT ON "MT" TOURNEY IRONS**



To protect the thousands of golfers now playing the new MacGregor Tourney MT irons, and the many thousands more who will play these outstanding clubs, MacGregor has been granted U. S. Patent No. 163,961 on its revolutionary blade design.

The reason behind the patent is a natural one. MacGregor, with its precision club-building methods has not been able to keep up with pro-shop demands. This competitive condition invites imitation . . . so to guarantee golfers all the better playing features in the "MT" iron MacGregor has protected this new development.

Now . . . on golf courses, in pro shops or wherever you see "MT" irons you can be sure that here is golf club perfection. "MT's", the world's most wanted golf clubs, are exclusively MacGregor. Patent protection is just one more reason why MacGregor remains "The Greatest Name in Golf."

MacGregor
THE GREATEST NAME IN GOLF

4861 SPRING GROVE AVE., CINCINNATI 32, OHIO

That small ad does a lot of business.

Joe Steiger, pro at Coos CC, Coos Bay, Ore., has very successfully handled the job of making golf grow in a pleasant small town. When Joe went to the Coos club it had 65 members. Now it's got 305. A lot of that promotion was thru reconditioning trade-ins in clubs of original members so the newcomers could get "test sets" at low prices. The very old clubs Joe converted into junior clubs, in some cases grinding the heads down. He saw to it that caddies got fitted with those so the kids became enthusiastic about golf and the caddy supply was adequate. The caddies pay for new or used clubs out of earnings, on the installment plan, in most cases.

Joe Sullivan at the Yale golf course, New Haven, Conn., is a great promoter and he too works on the basis that the big job is to get the new ones started and that requires clubs. Joe's golf teaching program at Yale creates a quick market for good used sets. He doesn't have to display used sets; just tip off a student that there's a good used set available that'll fit him.

There are other pros at college courses who are expanding the golf market rapidly by being able to offer good used sets. The students, most of whom are on rather close budgets, want to play but prefer their own clubs to renting.

Trade-Ins Growing Factor

This trade-in set selling at public courses and among office and factory workers, college students and caddies has become quite large business nationally during the past couple of years. Some watching is necessary to prevent the demand for allowances on sets being traded in on new clubs from getting out of line and tying up the pro profit, but during the past two years the trade-ins have been an appreciable factor in bringing new players into the game at a time when new club prices are fairly high.

Ole Clark at Longmeadow (Mass.) CC is another one of the pros who believes that an important part of the pro's job is

that of being his own advertising manager. Ole says that the club papers always are looking for news and advertising and the pro can't have a better medium of printed expression. The advertising represented by shop display is something else that Clark watches carefully. He keeps changing his display so there are often new "headlines" to catch the eyes of those who come into the shop.

Harrell Butler, at the Oklahoma City (Okla.) G&CC, is another of the progressive pro businessmen who makes discreet use of newspaper advertising. At a club like his he couldn't advertise in the newspapers to the general public but in the case of trade-ins his assistants use newspaper ads and sell from their homes. These ads get some customers who can be interested in buying new clubs.

Bill Hook, at the Kenwood CC, Cincinnati, O., also uses newspaper advertising to dispose of used clubs and that carries weight with a lot of intermittent or beginning golfers who know that what's had the approval and use of Kenwood members must be a pretty good buy. Hook disposes of used clubs, in addition to the newspaper advertising channel, thru range and public course pros on a percentage deal.

In the metropolitan districts at the better clubs the pros often carry stocks that exceed in value the inventory of many a down-town retail store. At a club such as Pelham CC, Pelham Manor, N.Y., where Buck Luce is pro, Buck simply has to keep stock moving to prevent having heavy capital tied up. He campaigns smartly for the members' Christmas business in golf equipment and apparel and by watching his stock closely always is offering fresh merchandise.

When there are apparel items that haven't sold as the playing season is coming to a close Buck reduces the prices on these items for sale to the caddies. He says that gives the caddies a break and protects the price structure of business with the members. It also keeps him from

(Continued on page 123)

Congratulations . . .

from all professional golfers to Joe and Herb Graffis on the first 25 years of GOLFDOM. What a job they have done thru the ups and downs of rather severe and uncertain times in all fields of sports business.

They've come thru with flying colors and have been an aid and an inspiration to all departments of golf from green to grill. They have given freely of their time and ideas.

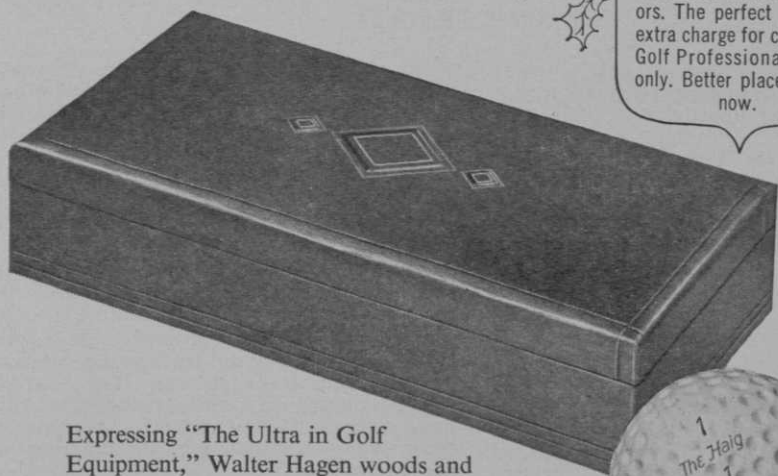
Professional golfers recognize their great contribution and join in sincere and rousing cheers for their next 25 years.

JOE NOVAK

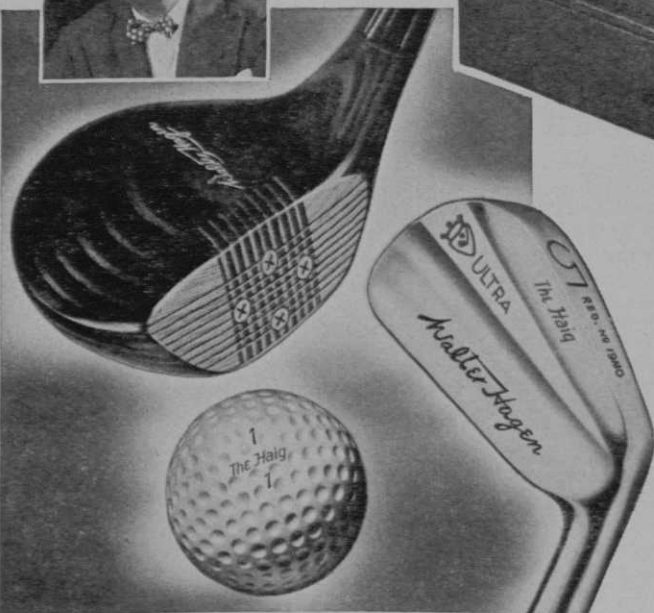
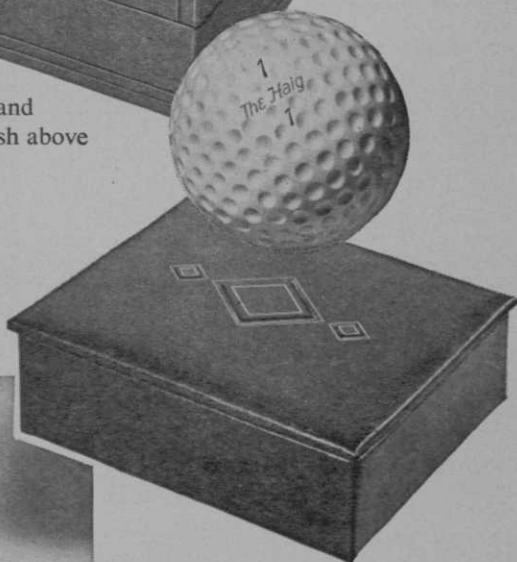
Pres., Professional Golfers Assn. of America

No finer gift for a golfer's Christmas

The famous HAIG golf balls—dozen or half dozen—in rich, gold-embossed leatherette cases with padded, hinged lids and simulated walnut interiors. The perfect gift. No extra charge for cases. At Golf Professional shops only. Better place orders now.



Expressing "The Ultra in Golf Equipment," Walter Hagen woods and irons are a gift any golfer will cherish above any other. At your Pro Shop.



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

Write a Check List of Fall and Winter Course Work

By KENT BRADLEY

When I was in charge of golf courses, like many another man responsible for course condition, I'd get swamped with work that prevented following the organized procedure I desired. Weather, finances and labor availability make the superintendent's job of planning a difficult one and too often his plans are subject to change without notice.

Yet, when another spring would come around and there was urgent necessity—or regret—for undone work I'd always resolve never again would I work without some sort of a plan on paper. Eventually I got around to it. My check list of fall and winter inspection and work helped me to do a better job of taking work in order of importance and undoubtedly gave my officials a clearer view of what was needed and how definitely I saw the requirements. I might also say that the check list procedure relieved me of the embarrassing necessity of making alibis. I was on record with the check-up in writing.

With the list before me I had done all work possible for me to do that had been approved. If my recommendations hadn't been approved I was in the clear and possibly my judgment was better regarded next season.

Since I got into the course equipment and supply business and continuously compare notes with superintendents and with their chairmen I see more than ever before the wisdom of planning work to a definite check list.

Some years ago I prepared for GOLF-DOM a check list of fall and winter work that continues to stand up as a help for superintendents, Green-chairmen and other officials. I've made some slight revisions in it, and the references to equipment needs and budget figures have to be considered in the light of uncertain conditions, but you can see for yourself that there's more than plenty for the course maintenance department of northern and central clubs to do in the next few months.

The check list:

1. Your chairman will appreciate a report from you on what equipment and supplies the course must have next season and another list of present equipment and supplies that are out of date, inefficient, and in line for replacement. Don't hold

back on a single item you'd like to have; some of it you may not be able to get even if you have the money. Later you can sit down with the chairman and blue pencil the non-essentials, budget considered.

2. As soon as possible, tour your entire course with your chairman and make a survey of the course's fertilizer, seed and chemical requirements. You probably know by heart what is needed where, but your chairman doesn't; so take him to the needy areas and show him.

3. Fall and winter are good times to lower the gradient of the mounds alongside fairway traps so that they can be mowed by fairway units rather than by hand mowers. Labor saving in seasons to come will more than pay for the cost of reconstruction.

4. As a source of self-education, write your state agricultural experiment station, and to the Dept. of Agriculture in Washington. Ask both for a list of publications available on turf culture, insect pests, bird protection and any other subjects in which you are interested. These lists are free, and the publications are generally free or not more than 10¢ each in a few cases.

5. Winter-kill and snow mold are preventable, and late fall and early winter, before the snows come, is the time to save yourself a lot of turf repair work next spring.

6. Just as soon as possible, check over every piece of machinery you have for worn parts. Make a list of these parts and submit them to your chairman for O.K.; and then see that the orders for these parts are mailed to the manufacturers or supply dealer soon, so the parts will be on hand when you give their winter overhaul and re-assembly.

7. Is your maintenance shed arranged for maximum efficiency? Has everything a place and is everything in its place? Nothing easily liftable should be leaned against a wall or stored on the floor or in the corner. Put hooks, shelves, and racks for such equipment.

8. Porch and lawn furniture need a thorough going over during the winter. Wooden pieces need tightening and painting; metal furniture will probably need some straightening and then paint.

9. Ball washers need an annual over-

haul. Replace worn brushes and paddles, give the containers a new coat of paint, and don't forget the posts on which the washers are mounted. Check prices; it is sometimes smarter to buy new washers than to repair old ones.

10. Go over the clubhouse, inside and out, with the club manager and determine what repairs, improvements and maintenance work you and your crew can do this winter. Painting, plumbing repairs and minor construction jobs are well within the ability of the club's staff to do itself.

11. Yardage markers, out of bounds signs, tee plates and other signs about the course should be brought in for overhaul, replacement, repainting and re-lettering. Take up with your chairman whether more signs or markers are needed. If you use the permanent, metal type, get his O.K. to order them.

12. If your chairman isn't sympathetic to the idea, talk to the chairman of the women's golf committee and ask her to raise a small fund with which to buy crushed grain and suet for the winter birds. A bale or two of straw opened up and thrown haphazard over a patch of low bushes will form an ideal refuge and windbreak to protect the birds against winter storms. The birds will repay you by devouring countless thousands of hibernating insects and insect eggs.

13. It is often easier to repair bridges in the winter while the water is frozen, so that you can get underneath the bridge planking and work on a solid surface. New supports are easier to install when there is no surface water to grope through.

14. If you are planning extensions to your watering system, especially mid-fairway snap valves, lay the pipe on the surface of the ground, coupled and in position, during the winter. In the spring when the ground thaws, the pipe is already to be buried and the ends connected to your present system. (That was in the first check list. You're lucky if you can get pipe now. Investigate new pipe material.)

15. On cold days when the ground is frozen and there is little or no snow on the course, concentrate on hauling, such as sand to traps, crushed stone for road fill and logs for firewood in the clubhouse. Wheeled vehicles can run over turf with minimum damage at such times.

16. The banks of your waterways need an annual inspection. You'll find many spots where reinforcement is advisable, and cold, clear weather is the time to do such work.

17. Before the start of the winter season, prepare a list of all the jobs that lie ahead for you and go over it with your chairman. Get his authorization for such expenses as will be incurred before he gets tied up with the holiday rush and his own business.

18. You'll probably find plenty of fence repairs waiting for attention after a season's play. Do a thorough job; makeshift repairs often mean more work on the fence in mid-season, when you need your men for regular course duties. Late fall is a good time for new fence placement.

19. Assuming that you keep your copies of GOLFDOM, and other turf publications, winter is the time to keep your reference file, or to bring it up to date if you have started one in the past. Buy a loose leaf binder and insert a sheet for every letter of the alphabet. Whenever an article appears you may want to refer to in the future, write the title of the article, the name of the magazine, the issue and the page in its alphabetical order in your binder. You probably will not be able to keep your whole crew through the winter. But you still want to hold your men for next year. A thoughtful move is to ask your chairman to send a letter to the entire membership asking them to advise you when odd-jobs come up around the members' homes. In this way you can help your men to earn a living through the lay-off months. (That's from the first check list, too. Now if you let good men go you probably won't get them back.)

21. Time can profitably be spent reconditioning and sharpening the many small tools in the maintenance barn. This applies not only to carpenter's tools, but also to shovels, rakes, scythes, hole cutters and the like.

22. If your mowers seem to need only minor repairs, tackle the job yourself; but if a considerable overhaul is in order, ask your golf course supply dealer to quote on the job. He is better equipped to put the mowers in perfect shape, and his charges are not out of line. If the dealer is to do the job, get your mowers to him early; don't wait until spring, when he'll be jammed up with repair work.

23. Sprinklers need a complete inspection: some may need replacement. Scale should be cleaned out, worn parts replaced, and after reassembling, do a paint job.

24. Shortly after the first of the year, the various universities and agricultural schools will be opening their course maintenance short courses. Plan to attend a course. The last minute information that you will acquire will make you much more valuable to the club. For this reason, your chairman is shortsighted if he neglects

your expenses while at the short course in his greens budget. (Most clubs do this now.)

25. Bring in the tee-benches from the course, singly or all at once. Each bench needs first a good scouring, then careful inspection of all the planks, braces, bolts and other parts for needed repairs. Replace worn parts, then paint the bench with good paint. Remember the bench has to stand all next season in every sort of weather; good paint is an economy.

26. If you plan any landscaping work involving the shifting of shrubs and the small trees, winter is the time to do this. The earth-ball method is foolproof if the ground is frozen; a lot more work if attempted at any other time of the year.

27. Among the course equipment which should be gone over, don't overlook the bird houses. Take them down, replace rotted wood and repaint early this winter. Then put the houses out to weather, as the birds will not nest in freshly painted houses.

28. Late fall and early winter is a good time to visit the woodland areas bordering the fairways of your course with the object of clearing the underbrush so that next season's golfers will have less difficulty finding off-line shots. But where practical, leave the underbrush as a bird refuge.

29. Winter is the time to put the shop bench in complete working order. Take an inventory of your small shop tools. Have you enough wrenches, screwdrivers, hammers, drills, files and saws? How's your supply of nails, bolts, washers, cotters and emery cloth? How about shellac, glue, turpentine, oil, kerosene, grease and alcohol?

30. In any discussion that you have with your chairman concerning the need for new machinery, keep constantly in your mind and in his the fact that worn-out or outmoded equipment takes its toll in added upkeep costs (and may be impossible to replace while defense manufacturing needs are high).

31. It is far easier to convince the green-committee that the putting greens need improvement than to sell it on the fact that your fairways need attention. If a general fairway feeding program is simply not in the cards, get an O.K. to make a test feeding on a limited fairway area. A year from now, the results will do the rest of the selling.

32. What is it costing you to pump water? Your pumps may be woefully inefficient compared with late improved models. You can obtain operating cost figures from pump manufacturers to compare with your own equipment's drag and soon determine how much of a new pump's purchase price can be saved the

first year (if you can still get the pump you need).

Other points to be checked probably will occur to you. But put them all down in black and white. Give the original to the chairman and keep a carbon yourself. When you've made up your own list the chairman or other officials probably will add some construction work to be done; especially since the heavy play of recent years has revealed the inadequacy of tee area at many short holes.

Your drainage system probably is getting clogged up in spots and your water system may need repairs before it's almost impossible to get repairs.

You'll probably be reminded of walk, parking space, driveway construction and repairs.

By the time you and the club officials get through compiling a check list in black and white the list will look long enough to be quite impressive as a reminder of the superintendent's vast and important work. You may wish that you were in charge of a course in the Arctic where the winter is long enough to allow you to get all the work done.

Lift Ban on Course, Range, Clubhouse Construction

Restrictions on new construction and alteration of golf courses, clubhouses and golf ranges have been lifted by the government under US. Dept. of Commerce National Production Authority amended order M-4A.

The amended order prohibits such construction or alteration if the job requirements exceed 2 tons of carbon steel, 200 pounds of copper, or any aluminum, alloy or stainless steel.

Builders of the golf projects or other projects covered by the amended order M-4A may not use self-authorization procedure for the acquisition of controlled materials.

Commencement of construction of any building, structure or project for a golf club or range is prohibited if the completion of the job will require the use of more controlled materials than stated above, unless exception or adjustment is granted under Section 8 of NPA Order M-4A.

Copies of Order M-4A, Controlled Material Plan Regulations 1 and 6, Direction 1 (procedure for obtaining small quantities of materials for use in construction projects), and construction projects forms for authorizing starting of construction may be secured from Dept. of Commerce field offices in most major cities or from Dept. of Commerce, NPA Facilities and Construction Bureau, Washington 25, DC.



We believe it's true that the Golf Professionals do more for more people than any other persons in the world of sport and recreation.

The Golf Pro must be a teacher, a counselor and a model of sportsmanship to the members of his club. Besides that he must be a merchant and a business man. It's a pretty hard specification to meet and the boys who have graduated into the ranks deserve the acclaim not only of the players but also of the suppliers of golf equipment.

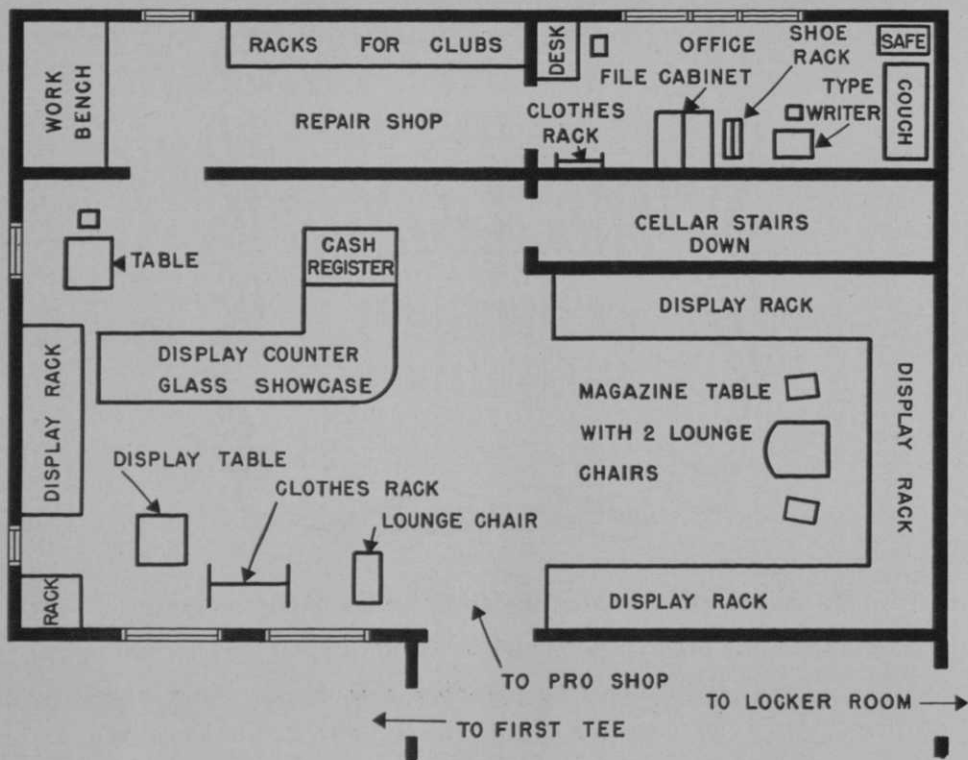
We are deeply grateful, first for the fact that there are Golf Professionals, and second for their fine acceptance and support of our products. We shall continuously try to improve the quality and value of our products so that they may continue to deserve the support and endorsement of "The Pros", and take this means of sending our best wishes for a successful and happy winter season to our thousands of friends in "Pro" ranks.

The Worthington Ball Company, Elyria, Ohio

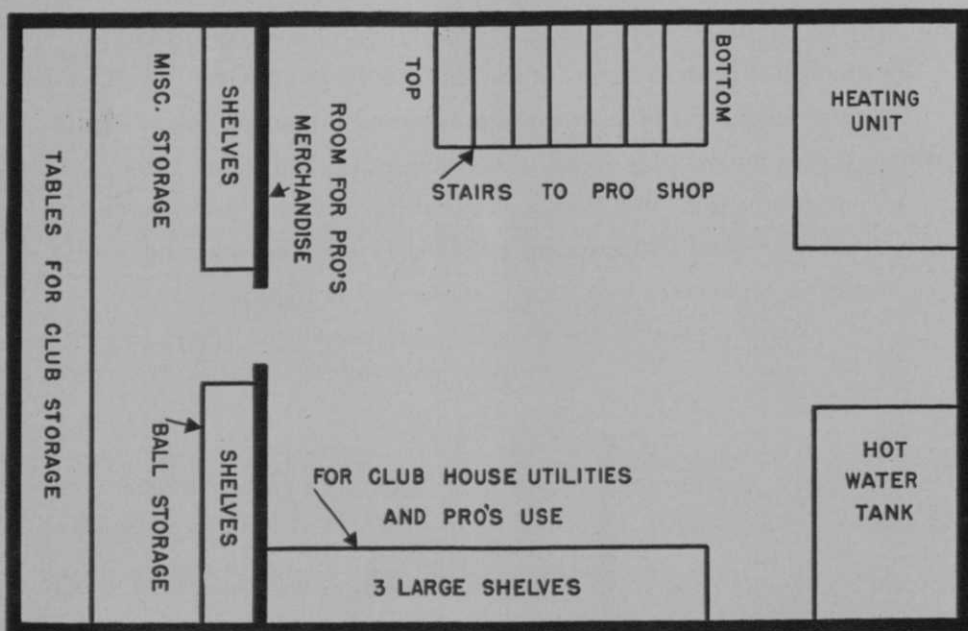
*47th year,
Specializing in Golf Ball
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| **Worthington**

WORLD'S LARGEST EXCLUSIVE GOLF BALL MAKER



Layout showing John Budd's pro shop at En-Joie GC, Endicott, N. Y., rebuilt in 1945.



Added advantage of basement storage space is shown in floor plan of Budd's new shop.