Q. I have been assigned to the job of the upkeep of the course at a U. S. Naval Base. This is a new kind of job for me. I would appreciate any kind of help you can give.

From all the complaints I have heard, and from what I can see, the big problem is the greens. The grass is green in spots only, and the greens aren't smooth. In the past they've been using potash and sand mixed for dressing the greens. Is this proper? What kind of grass seed do you recommend for this climate (90° temperature every day)? For what reason do you use an aerifier? How often should you water the greens and what time of the day?

How close should the greens mower be set to cut? As you see, I don't know anything about a golf course and I imagine I'll have a rough time learning the tricks of the trade. (Navy No. XXX)

A. A program of topdressing would seem to be in order to smooth the greens for better putting. A sandy soil usually is best, preferably rendered weed-free by sterilization with chemicals or gas.

Grass green only in spots would indicate hard soil and excessive run-off with water collecting in the low places. The answer is aeration to obtain moisture control — get the water into the soil where it falls — apply
water slowly so that the soil absorbs it as fast as it is applied.

Chances are the principal fertilizer requirement is nitrogen to stimulate growth and color. It would be well to have soil tests made at your nearest soil testing laboratory.

A vigorous fine-bladed vegetative Bermuda should be your putting green grass. Seed is not likely to give you the results you are looking for.

Aerating equipment is used to get water, air and fertilizer into the soil to get more effective use of water and fertilization and to promote deep rooting.

Watering should be done as needed with emphasis on deep soaking at long intervals with hand watering in between to maintain growth and color. Well-fertilized grass needs less water than hungry grass. It is a mistake continually to use water as a "soil-softening tool." Best time to water is early morning to wash the dew off the blades. This reduces disease and the grass dries faster, enabling the mowers, and play to start sooner.

The best height of cut for a greens mower is in a range between 3/16 and 1/4 in. If set higher than 1/4 the grass tends to get matted and produces a poor putting surface.

Q. I am writing you in regard to yellowish green looking spots on my greens. I have tried different kinds of fertilizer but they don't help much. These are spots about 12 or 18 ins. across scattered over the green. I had trouble with them last year for the first time. All come about this time of year. I think aerifying might help. What do you think?—(Kans.)

A. We have racked our brains for an answer to your problem of yellowish-green spots on your greens but draw a blank. From the limited description, we fail to recall anything in our experience that matches this.

Our first thought is that the spots may be a particular strain or type of grass. This is a wild guess, not knowing the kind of grass on the greens. It is possible that it may become "winterkill." Without a description of the kind of trouble it is very difficult to diagnose, especially 1300 miles away.

We urge you to take your problem to Dr. Ray Keen at the Agricultural College at Manhattan, Kans. This requires on-the-spot inspection and diagnosis.

Q. Our grass greens suffer severely from "winterkill" and smothering from ice and snow which covers them all winter. Would it help if the greens were to be covered in fall with light tree branches, with straw thrown over the branches? (S. D.)

A. First, let us analyze the problem. "Winterkill" might be drought (drying out) in early spring when the ice and snow are gone. Dry winds can remove moisture from the blades of grass while the soil still is frozen and the roots thus don't get enough moisture.

"Winterkill" could be severe snowmold at-
tacks which would be active most of the winter but the effects would show only after the snow and ice left.

The effect of dessication could be lessened by using tree branches to hold a snow cover until late spring when the soil would be thawed so that roots could absorb moisture.

Snowmold can be reduced by using a resistant grass (Congressional bent) and by making fall applications of specific fungicides, according to manufacturers' recommendations.

I favor the tree branch cover if a mercury treatment is to be made in advance.

Q. We are planning to start several experimental plots of bent grasses with the idea of eventually using the most satisfactory strain on our own courses. We would like your recommendation as to the most satisfactory strain or strains to use in this locality. Washington bent has been highly recommended to us.

We have a small plot of bent grass on one of our golf courses. No one seems to know where it came from but it is apparently doing very nicely. Is there anyone that we could send some sample plugs to and have it identified?

(N. C.)

A. You are wise to start a test nursery so that your eventual choice of a grass will be the one which performs best under your conditions.

Washington bent has been a good one. The only trouble is that there is more than one "Washington" and some are better than others. Their identity has been clouded over the years.

Cohasney (C-7) creeping bent is giving a good account of itself where summer heat is hard on other bentss. Arlington (C-1) and Congressional (C-19) mixed together are doing very well near you. Arlington alone is very good on many courses. Right now, that just about exhausts my choices. You could add Pennnu to your nursery because it needs to be tested in the south. When Penncross seed is available (this fall, we hope) you certainly should have a plot of that.

Perhaps you would like to establish a few test plots of fine-bladed Bermuda grasses. With poa annua as a naturally occurring cool season grass, you might be pleased with the performance of Bermuda. I would suggest trying three to start with: Gene Tift, Tifgreen and Ugandagrass.

When you find a patch of a grass that is outstanding by all means preserve it and send a specimen (a 4-in. plug, soil shaken out, dried almost to wilting, wrapped in polyethylene and mailed parcel post special delivery) to someone who can evaluate it.

I would be glad to plant it in my nursery where I am observing several interesting grasses and I would identify it for you if I am able. If it shows promise it can be increased and sent to experiment stations for further testing.

Q. We are building a new 18-hole course at Vineland, N. J., greens to be planted in C7. I am interested in finding out more about this grass. Do you have any information about it?

(N. J.)
A. Acohansy (C-7) creeping bent was selected by E. R. Steiniger at Pine Valley, N. J. It is an excellent hot-weather grass which holds good color early and late as well. It has a light yellow-green color which is very pleasing when a green is planted solid to this grass. By contrast with a dark green bent, often it is unfairly graded down by those who have a personal preference for dark green. It is somewhat susceptible to dollar spot which is easily to control with nitrogen feeding and suitable fungicides. It is quite resistant to brown patch. It is vigorous, aggressive grass and resists the invasion of poa annua very well. It develop a sense of when to use it.

Q. I have just purchased an aerifier with the idea of using it not only on my private lawn, but on our course as well. I have been chairman of our green committee for many years. How often should we aerify each of the following:

- Lawn - centipede, zoysia and Bermuda; fairways - centipede and Bermuda; tees - Bermuda; greens - Bermuda (summer) and rye (winter)?
- Our soil is a sandy loam with very little organic matter in it. It is not a good soil. We do not add much fertilizer to our fairways. We do use quite a lot of fertilizer on lawn, tees and greens. (Ala.)

A. The "pat" answer to "how often should we aerify?" is "as often as necessary". Now, all I have to do is tell you when it is necessary.

You can aerify to advantage just before you fertilize. This promotes deep penetration of materials. When water begins to run off instead of soaking in, it is time to aerify.

This is good procedure in connection with seeding. In general, Bermuda can use more aerifying than centipede and zoysia.

Aerifying promotes the free circulation of air (oxygen) in the soil, enhancing value and efficiency of fertilizers. Some courses aerify Bermuda fairways once a month.

Aerifying helps to topdress turf and create a firm resilience. Fairways that get hard in summer can be softened mechanically by regular aerifying, starting when there is natural moisture in the soil which improves deep penetration. Golfers claim that aerified fairways are easier to walk on.

The need for aerifying greens will depend upon the kind of soil, how badly they need cultivation and other factors. I am a firm advocate of four-way aerifying, doing a good job while you are at it, then leaving the greens to the golfers until needed again. Twice or three times a year for four-way aerifying should be sufficient in most cases. Tees will need cultivation more often than fairways—about once a month.

Your sandy loam soil can develop a crusted condition which can shed rain like a roof. When that happens you can be sure that it is time to aerify again. As you operate the machine and observe the results you will soon develop a sense of when to use it.
on northwest side of Chicago . . . Owned and operated by Mr. and Mrs. Caryle Seld- 
man . . . Mrs. Seldman's father, Joe Hall- 
nern, started the range in 1931 . . . Serves about 60,000 different players in the sum- 
mer . . . Buys 240,000 top grade balls each year. Big party for Gil Middleton, retiring after 40 years as pro at CC of Pittsfield, Mass. . . . Members gave Gil an automobile . . . He came to U.S. from Montrose, Scotland 44 years ago . . . University of Florida Turf con- 
ference at Gainesville, Sept. 25, 26, 27, has pro- 
gram that should draw suits. from all over 
southeast.

Any of you pros who have women members who want to play in Women's Trans-Mississippi at Monterey Peninsula CC, Pebble Beach, Calif., Oct. 8-14 better tell the girls to get en- tries in soon . . . Field limited to 200 . . . Mrs. John B. Miller, Box 2537, Carmel, Calif., is chmn. of the tournament . . . Desert Inn CC, Las Vegas, Nev., building new clubhouse ad- 
joining pro shop and makes annual mem- 
berships available for residents and non-residents . . . Las Vegas junior golfers give Wilbur Clark grateful testimonial for encouraging kids' golf at the Desert Inn course . . . We'd like to see more of these testimonial affairs for fellows who encourage young golfers.

Marco Marinello, owner of Wyckoff Park G&CC, Holyoke, Mass, gives reduced rates to city fireman and policemen . . . Rain check idea is growing in popularity at semi-private courses . . . Brings out people who might be kept away by threatening weather . . . Walnut Hills CC, new private 18 at Columbus, O., opened with course in remarkably good con- 
tions for first year . . . Jim Harrison, architect . . . Steven Gabay, pres., . . . Fairways seeding was 60 per cent creeping red fescue and 40 per cent Colonial bent . . . Wm. Pritchard's Maplehurst CC, Frostburg, Md., another Harrison job, also recently opened.

Other courses designed by James G. Harri- 
son on which work is in progress are: Center Hills CC, State College, Pa., to build 18 next year . . . Clearing site for 18 hole private club headed by Oscar Heffin at Webster, N. Y. . . . Remodeling present 9 and building addition 9 at Brookside CC, Portstown, Pa. . . . Finishing 18 for Bridgeport (W. Va.) CC to open in Spring, 1957 . . . C. G. Moorehead is Bridge- 
port pres., . . . Warwick Hills CC, Flint, Mich., to have new 18 open next spring . . . Lake- 
view CC, Morgantown, Pa. 18 to be in play in Spring, 1957 . . . New layout of 18 for Ithaca (N.Y.) CC.

Walter Schimmer Co. hour TV "All Star Golf" film for release in 1957 started at Cog- 
hill CC (Chicago dist.) semi-private owned by Joe Jennek . . . Snead beat Middlecoff in first match of program that will stage many star competitions for total prize money of $100,000, according to Schimmer announc- 
ment . . . Dave Mose, professional at Calu-
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Write for Illustrated Catalog

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met CC (Chicago dist.), doing very well in sanitarium recovering from TB.

Knollwood Club, Lake Forest, Ill., where National Amateur will be played Sept. 10-15, making interesting use of rough around greens and in narrowing and outlining fairways in preparation for the tournament.

The work is an impressive demonstration of what can be done by rough as golf architectural element that doesn't involve great expense and permanent alteration of a course.

Harry Obits, in his 11th year as head pro at Fred Waring's Shawnee Inn & CCC, Shawnee-on-Delaware, Pa., now has a shop better than the great establishment he had before last fall's flood ruined Harry's place of business and his home . . . Harry's got give assistants: Dick Farley, Ronnie Ward, John Clementi, Stan Mushensky and Carl Watkins . . . The Obits weekly show for Shawnee guests "The Swing's the Thing" again is a big feature.

San Clemente, Calif., muny course now 18 holes with opening of second 9 designed and built by Wm. F. Bell . . . Bill's dad, the late Wm. P. Bell, laid out the first 9 in 1928 and had the course in play the next year . . . He roughed-in the additional 9 in a design that his son followed with the exception of one hole where a street runs where Bell, Sr., had a fairway in his plans.

Mondak Brothers building semi-private 18 at Middleburgh Heights, Cleveland, O., suburb . . . An 18-hole semi-private course being planned for Mayfield Heights, another Cleveland suburb . . . Jim Langford is leader in campaign to get 9-hole course built at Willard, O . . . Construction being pushed on Brown's Run CC, Middletown, O . . . Bill and Dave Gordon are architects . . . The Gordons also are architects of Whitford CC, now being built near Downingtown on Philadelphia's Main Line . . . It's fifth new club built in Philadelphia dist. since World War II.

Charley Smith, gen. mgr., Guadalajara (Mex.) advises that the annual Guadalajara invitation tournament will be played Oct. 10-14 . . . This affair is tremendously enjoyed by American guests fortunate enough to get invitations and to be able to accept them . . . The club will be in its extensively remodelled clubhouse then . . . Charley, known by his teammates South of the Border as Carlos, also is building a course at Mazatlan, a seaside resort and great fishing headquarters on the Pacific about 300 miles north of Guadalajara.

USGA Green Section has shifted Jim Latham from work as asst. to B.P. Robinson, Southeastern director, to be asst. to Al Ratko, northeastern director . . . John R. Van Kleek, architect of 18-hole course at Paradise Hotel and Villas, Crystal River, Fla . . . John Beharrell, British Amateur champion, is a nephew of Sir George Beharrell, head of the Dunlop organization in Britain and a fine golfer himself . . . Vinnie Richards, Dunlop sports department head, is trying to get young Beharrell to play in U. S. Amateur.

Trans-Mississippi's 53rd annual tournament
had no Calcutta this year. The Trans assn. never officially sanctioned a Calcutta but one was conducted by each club which was host to the tournament. Bob Bodington now pro at Farmington (Conn.) CC.

Joe Flemming is his asst... Bob Kay, pro at Wampaanoag CC, Hartford, Conn., has Mike Portik as asst. Bob and Mike started together as caddies at Niagara Falls, N. Y.

Wm. Diddle is architect of Hidden Valley Club 9-hole course at Gaylord, Mich., which will open for play next spring... Almaden GC, San Jose, Calif., and 378 acres adjoining sold for “well over $1 million” to Thomas J. Culligan of San Mateo, Calif., and Dr. Sol J. Leider who owns Pajaro G&CC, Watsonville, Calif., and La Rinconda GC, near Los Gatos. Almaden will continue in operation. Tracy (Calif.) GC 9-hole course recently opened. Second 9 of Spring Valley GC, near Milpitas, Calif., opened.

Mildred Grady, wife of Steve, pro at Brookside CC, Pottstown, Pa., says she came into Steve’s shop one day 5 years ago to help in an emergency and has been bookkeeper, shop boy, head of the “soft goods dept.”, display manager and advertising manager for Steve ever since... Lot of interesting fun but Steve won’t pay her union scale, Mildred laughs.

Laramie, Wyo., to vote on $250,000 bond issue for recreation facilities including 18-hole course. Lewis “Tommy” Bean now pro at Jekyll Island (Ga.) State Park 9-hole course... Building new clubhouse at Memphis Naval Air Station Course, Millington, Tenn.

Construction begun on first 9 of Beaver Ridge CC, Knoxville, Tenn... Eugene M. Howerd opens his Sapphire Valley GC, Sapphire, N. C... George Cobb designed the course which has holes named after prominent pros... Organizing club to build 9-hole course at James Jones’ “$100,000 Resort” at Geneva, Ala... George Von Elm architect of course being built at Airport Park, Blackfoot, Ida.

Massachusetts Dept. of Labor and Industries sets new minimum wage scale for caddies: 75 cents single 9 holes; $1.25 double, 9 holes; for 18 holes, $1.50 single and $2.50 double... Begin construction of Jacksonville Beach, Fla., municipal 18... Work under direction of L. N. “Buddy” Clark,upt. of parks and sec-treas. Georgia-Florida Turf Assn.

Garner Shriver, Wichita, Ks., attorney one of organizers of Riverview CC, to build 18-hole course at Wichita... Wm. Mitchell designing course to be built near East Hampton, L-I, N. Y... Prospect Point 18-hole course designed by Jack Daray for city of Coronado, Calif., to be in play July 1, 1957... In conditioning soil 1000 tons of gypsum are to be used.

The Jackie Burkes are expecting another champion in the family in November... Summary of Clinic Sessions and Seminars at PGA National Golf Club conducted by PGA Teaching and Education and Dunedin committees of PGA now being distributed by PGA.

(Continued on page 82)
GOLF TROPHIES and PRIZES
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Joe Dragoon, Dick Link, Head Hagen Division

Dick Link, nationally noted for his mastery of club design and construction, and Joe Dragoon, active in the sales promotion of Walter Hagen golf goods since 1942, now are heading the operation of the Hagen division of the Wilson Sporting Goods Co.

Announcement of the promotion of Dragoon and Link was made by Wilson pres., Fred Bowman, simultaneously with the official release of Ed Rankin’s resignation as Hagen gen. mgr. to go with the Ben Hogan Co.

Dragoon has concentrated on Michigan business of the Hagen pro-only sales operation during his 14 years with the company, but also has figured in the national pro sales picture, building a wide acquaintance among successful club professionals.

Dick Link went from the Wilson organization to the Hagen company when L. A. Young owned the Hagen outfit and continued when Wilson bought the company. He has been responsible for many outstanding jobs of club design and manufacture.

Spalding Claims Maximum Durability for ’57 Dot

Spalding’s new 1957 Dot, described as a high compression ball with maximum durability, has withstood the most rigorous kind of trial run testing, according to the manufacturer, and will stand up under the most severe pounding.

The new ball has a new marking in two colors, red and black. Paint will resist discoloration and has fine adhesive qualities. Winding of Dot centers has been improved, guaranteeing highest uniformity, and new manufacturing techniques have assured positive amalgamation of cover stock to winding.

The ’57 Dot was introduced late in August at a press party held at St. Andrews GC, Hastings-on-Hudson, N. Y., attended by Bob Jones, Spalding officials, newspaper, radio and TV men.

Sports Award’s New Catalog Available

Sports Award Co., 429 W. Superior st., Chicago 10, Ill. has recently released its 1957 Trophies for Champions catalog which is available upon request to the manufacturer. The photo illustrates one of the many modern trend trophies mounted on best quality woods that can be obtained from Sports Award for tournament and other prize awards.

Golfdom
Augustine Ascending Elms (foreground) dot the rough between 15th and 16th holes at Flint (Mich.) GC. There is little space between fairways of these two holes and elms are big help in player traffic control.

**Augustine Ascending Elm**

**Winning Acceptance as Golf Course Tree**

Numerous supts. are convinced that many of the problems of golf course landscaping can be solved through a wisely planned and carefully conducted tree planting program in which judicious selection of trees is the starting point. Native trees often are unsatisfactorily located or may have undesirable qualities of age or character and should be replaced.

If the tree replacements are to be advanta-

Tree at left was one of 100 transplanted to Flint course in 1951. It is now 30 ft. high and has luxuriant growth. Below in foreground is another cluster of young Augustines that add to beauty of 14th hole. Altogether, Flint GC has planted nearly 600 Ascending Elms.
geous, the new trees should be "golf course trees". That is they should be suitable for the particular landscaping purposes of the club. One of the most acceptable trees is the Augustine Ascending Elm which combines qualities of the American Elm, one of the best-loved of all shade trees for many generations, with new characteristics of beauty and health in a new generation of elms.

The experience of Flint (Mich.) GC with the Augustine is typical of what has been reported by numerous leading clubs.

Edwin M. Titus, chmn. of the green committee at Flint reports the club is enthusiastic about Augustine Ascending Elms as golf course trees.

Flint GC became interested in Augustine Ascending Elms in 1951 and planted 100 of these trees in April of that year. So successful were these trees that the club has since planted over 500 and anticipates adding more as funds in the green committee's budget permit. The committee has used Augustine Ascending Elms for four specific purposes:

1. Traffic control; to define fairways and encourage golfers to play in their own fairways.
2. Definition of greens.
3. Shade.
4. Beautification of the course.

One of the original 100 trees is over 30 feet tall. Titus reports losses have been very few and percentage wise would be estimated at two per cent. "Our success has been excellent. Despite the occasional trouble our players get in, they seem to be universally enthusiastic about our tree program," he concludes.

The Augustine Ascending Elm traces its ancestry to a magnificent columnar American Elm discovered in Normal, Ill., by the late Archie M. Augustine, noted horticulturist. It derives its name from its discoverer and its beautiful columnar form.

Scions of the parent tree were subjected to nearly 20 years of study and development before the variety was first released for general planting in the fall of 1949. Today, more than 50,000 Augustines have been planted in 36 states.

The Augustine elm is characterized by its beautiful appearance, perfect repetition of shape and habit, unusually rapid growth and extreme resistance to storm damage, insect plagues and disease problems. It has an up-reaching columnar form with rising branch structure, sturdy trunks, and compact roots.

The compact root system and strong tap roots provide secure anchorage against wind storms. Upsplanting branches are protection...