



"mow down the Axis." We are learning from this experience new and better methods of solving mowing and maintenance problems . . . modern methods that will come to your aid, cut your grass, your costs, time and effort . . . when Victory is won.

Until that worked-for and longed-for day, our agents, dealers, and home office stand ready to help you keep your present Worthington equipment in the most efficient working order possible under existing conditions.

Since July 26th the Army-Navy "E" pennant has been flying over our plant . . . a tribute from the Armed Forces to our employees, to our suppliers, and to our customers without whose wholehearted cooperation our full-out wartime production would not be possible.



WORTHINGTON MOWER COMPANY
Home Office: Stroudsburg, Pa.

Congratulations

to the

WORTHINGTON MOWER
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on achieving the

Army-Navy "E" Award

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*Excellence
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ARTHUR D. PETERSON COMPANY, INC.

Distributors of

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FOR FUN, FORGET PAR: COX

WIFFY COX, pro at Hempstead (L. I.) GC, and as many know, one of the smartest pros in the game, has an idea that golfers would get considerably more fun out of their games if they established pars based on their normal score expectancy.

Cox has been thinking this idea over for years, while he was pro at Dyker Beach, Brooklyn, and later at the Congressional CC, Washington, D. C. He's sold many golfers on the idea and has found that its application makes it possible for players to get fuller enjoyment out of the game instead of having their pleasure marred by comparing their scores with rigid, cold par. Even the handicap allowance fails to give the less proficient player the encouragement that he should have when he is playing simply for relaxation, free air, exercise and an escape that will enable him to renew his zip for tackling his wartime job.

Although a veteran and successful tournament pro, Wiffy also is gifted with the genius of understanding the less competent players' temperaments. So in endeavoring to fit golf more pleasantly into the scheme of things for those to whom par generally is an infrequent accident, Cox devised a system of pars for various classes of players.

Cox, in explaining his idea, said in a newspaper interview:

"Forget the scorecard's perfect figures and set your own par."

"Too many players tear their hair, ruin

their disposition and lose all the joy of playing because they worry too much about making pars," says Cox. "Those par figures on the card are set for the stand-out players and 95 per cent of our golfers can't be standouts because they lack ability, and don't have the time to improve whatever ability they do have.

"Every golfer should establish a par of his own to conform with the limits of his own game. He will find that he will have lots more fun and, actually, his game will improve when he stops pressing in his efforts to get a scorecard par."

Cox suggests golfers should place themselves in one of these four classes:

Group A—70 to 80 shooters, handicaps 1 to 10. Their par should be 76.

Group B—80 to 90 shooters, handicaps 11 to 15. Par 85.

Group C—90 to 100 shooters, handicaps 16 to 20. Par 94.

Group D—100 plus shooters, handicaps 21 to 30. Par 103.

Wiffy says golfers can work out their own pars for each hole to fit their own game, considering the length of the hole, the hazards, topography and wind conditions. Just as an example, Cox took the card of his Hempstead Golf club and worked out the par figures he believed best suited to the golfers in the four different groups. Here it is and it will give you an idea how to make up your own:

| HOLES | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | OUT | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | IN | TOTAL |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-------|
| YARDAGE | 325 | 443 | 500 | 404 | 382 | 477 | 382 | 177 | 305 | 3395 | 122 | 200 | 415 | 310 | 524 | 381 | 527 | 324 | 354 | 3157 | 6552 |
| PAR | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 3 | 4 | 37 | 3 | 3 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 36 | 73 |
| 70 TO 80 | 4 | 5 | 5 | 5 | 4 | 5 | 4 | 3 | 4 | 39 | 3 | 3 | 5 | 4 | 5 | 4 | 5 | 4 | 4 | 37 | 76 |
| 80 TO 90 | 4 | 5 | 6 | 5 | 5 | 6 | 5 | 3 | 4 | 43 | 3 | 4 | 5 | 4 | 6 | 5 | 6 | 4 | 5 | 42 | 85 |
| 90 TO 100 | 5 | 6 | 6 | 6 | 5 | 6 | 5 | 4 | 5 | 48 | 3 | 4 | 6 | 5 | 6 | 5 | 7 | 5 | 5 | 46 | 94 |
| 100 PLUS | 5 | 7 | 7 | 7 | 5 | 7 | 6 | 4 | 5 | 53 | 4 | 4 | 7 | 5 | 7 | 6 | 7 | 5 | 5 | 50 | 103 |

Here is Wiffy Cox's diagram of normal score expectancy for all classes of golfers, proposed to boost the pleasure of the average golfers' round.

Is your poster



WARNING TO GOLFERS

THE THREATENED SHORTAGE OF GOLF
BALLS IS HERE. THERE MAY NOT BE
ENOUGH TO FINISH OUT THE SEASON
...THEREFORE—FROM NOW ON—YOU
SHOULD TURN IN AN OLD GOLF BALL
FOR EVERY BALL YOU BUY.

SIGNED:

ACUSHNET PROCESS SALES COMPANY
A. G. SPALDING & BROS. INC.
UNITED STATES RUBBER COMPANY
WILSON SPORTING GOODS COMPANY
THE WORTHINGTON BALL COMPANY
THE L. A. YOUNG COMPANY

MEMBERS GOLF BALL MANUFACTURERS ASSOCIATION

doing its job?

THIS poster was mailed recently to all golf pros. Did you get yours? Are you displaying it? It's the official message from the industry through you to your members.

The golf ball shortage has entered the critical stage. The manufacturers co-sponsoring this warning poster frankly admit it. The important thing now . . . is salvaging and reprocessing more old balls to keep golf alive. Send them in at once. Getting more old balls back for reprocessing and into circulation again is urgent—imperative.

Don't hesitate to ask for extra posters if you can find good spots for displaying them. We'll be glad to mail copies upon request.

A. G. SPALDING & BROS.

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SPALDING

SETS THE PACE IN SPORTS



G. W. "Pop" Mattern, Golf Industry Pioneer, Dies

GEORGE WELLER MATTERN, 76, formerly vice pres. and gen. mgr., Crawford, MacGregor, Canby Co., died at Miami Valley hospital, Dayton, O., July 12, following a brief illness.

"Pop" Mattern, as he was widely known in golf in this country and abroad, was born in Pomeroy, O., and came to Dayton in 1888. He and his father became associated with the Barney and Smith Car Works as cabinetmakers. In 1894, both of them joined the MacGregor company, which then was known as the Dayton Last Works.

Early in the 1900s, he designed the first MacGregor clubs. In 1908 he was made vice pres. and gen. mgr., which position he occupied until his retirement in 1936.

"Pop" was a member of the Miami Valley GC, the old MacGregor club and several other clubs in Dayton. He is survived by his wife, two sons and a daughter, all of Dayton, two brothers who are Dayton residents, and a sister residing in Lexington, Ky.

George Mattern was a genius in club design and construction and in many respects a trailblazer for the industry that has become gigantic during his time. He was a genial personality, widely beloved in the golf field, and to his excellent judgment and work golf owes much.

Dime-a-Round Drive Has Raised \$6,000 in Chicago Area

THE golfers' Dime-A-Round fund, originated by the Chicago DGA and being sponsored nationally by it and a number of other golf assns., showed a total of over \$8,400 already collected by August 21. Funds raised through the plan, whereby golfers starting a round drop a dime into a milk bottle on the first tee, are turned over to the Chicago Servicemen's Centers, to be used at their discretion.

Jackson Park muni course leads all Chicago with \$1,420 raised. Leading daily-fee course is Westgate Valley, where \$570 has been contributed by players. Glen Oak is ahead of all private clubs in the district, having raised \$289.

W. B. Bangs, Vet Manager, Dies

WILLIAM B. BANGS, father of William R., jr., manager of Exmoor CC (Chicago district) and Charles R., sec. of the

Club Managers Assn. of America, died, aged 79, at Chicago, July 7.

Mr. Bangs was one of the club managers of the nation. For 56 years, until his retirement, seven years ago, he was manager of the Chicago Club. In addition to the two sons above named he is survived by his widow and another son.

He was a grand gentleman of the old school, competent and gracious. He was highly esteemed by all who knew him personally and professionally, and by the business leaders of Chicago whose club interests he managed for many years. He was regarded as a warm friend who was the peer of all club managers.

Soldiers Get Spares—Sam Dickie, pro at Forest Park course (N. Y. Met. Distr.) until he shifted to a war job, is moving to Seattle, Washington. In packing his belongings, Sam found 25 irons and 15 woods, all in good order, for which he had no need, so he donated them to the servicemen at nearby Fort Totten. Sam's generous gift could be duplicated by hundreds, perhaps thousands, of pros and golfers who, if they'd just look around, would find long discarded clubs that are doing nobody good now, but could be a source of much pleasure if donated to servicemen.

Build Links for Wounded—Army patients at the Valley Forge general hospital, Phoenixville, Penn., will soon be able to hasten their recovery on a nine-hole golf course being laid out by Joe Valentine, supt. of Merion GC. The course was originally proposed by Leo Diegel, and 8 or 10 Philadelphia district pros are helping Mondays and Fridays with the construction and with offers of free instruction to the patients.

Aulbach's Father Dies—Frank J. Aulbach, father of George Aulbach, well known Amarillo (Tex.) pro, died August 14 in Boston. The senior Aulbach was a foreman toolmaker for a Boston concern.

OPA Gets Over-Efficient—While members of Glen Oaks (Great Neck, L. I.) were busy in the clubhouse and on the course raising \$540,000 to buy a bomber, investigators from the OPA were roaming the club parking lot putting tags on automobiles which ordered the owners to explain how they could drive to the club under the East's driving ban. High OPA officials blamed certain small fry of their outfit for the boner.

What Kind of Turf?

By O. J. NOER

WHEN grass is weed infested or grows badly, the first thing most people think about is fertilizer. They take a sample for analysis. They may be right in seeking a soil test for the feeding of grass is an important factor in turf maintenance.

But, fertilizer doesn't really work unless other factors are favorable for growth. The important thing to do is to make all other conditions favorable first and then solve the problem of feeding. When all other factors are favorable, fertilizer really functions, and that means a thorough understanding of all the fundamentals upon which turf growth depends. After all, I don't see how anybody can intelligently manage turf unless he knows those factors. But with that knowledge, he can diagnose trouble and formulate a program which will correct the cause and produce a dense sward of weed-free grass.

First Comes Diagnosis

The physician first explores all symptoms before diagnosing the cause of illness. He knows that high temperature indicates infection, but that temperature doesn't tell whether it is a typhoid fever, a bad appendix, or something else. Some other more specific symptom tells him what is the real cause. The procedure is more or less the same with turf. First it is necessary to diagnose the cause, and then it is possible to prescribe a treatment which will give good grass. As a rule, after finding the cause it is comparatively easy to decide upon an effective improvement program. Very often, the answer is to be found right on the property, so in surveying the situation it is important to keep that fact in mind.

Some years ago a club in Canada, between Ottawa and Montreal, had mostly clover, plantain and other weeds in its fairways. Each year much fertilizer and fescue seed were used, but the seed never developed into turf. There was an unsuspected drainage problem before anything else. The course was built on a rocky hillside where seepage broke out along hillside, in spring and fall. Fescue cannot stand wet feet, so the new seedlings were killed every year. It was impossible to install an adequate tile drainage system

because of outcropping fissures in the rock. As a consequence, the club was compelled to use bent grass which, after all, is a water grass. After doing that, the fertilizer worked and developed turf, which conquered the clover and other weeds. Instead of sowing seed, they planted stolons of native bents found growing wild along the banks of nearby streams.

In considering turf, the underlying fundamentals include: (1) favorable environment; (2) grasses which are suited to the locality; (3) a fertile soil; (4) a sensible maintenance program; and (5) absence of unfavorable conditions. This is a negative rather than a positive factor.

From the standpoint of environment, climate comes first. Many of you know that corn does its best down in Iowa and Illinois. Yields per acre in those states surpass Wisconsin because the nights as well as the days are hot and humid. That is when corn really grows. Northern Wisconsin produces better potatoes than the region farther south because potatoes prefer a cool moist climate, with plentiful rainfall when tubers begin to form. Northern Wisconsin is almost always able to produce higher yields than farther south where the climatic conditions are against maximum growth.

Most Like It Cool

Most of our permanent grasses—north of the Ohio River—prefer cool climate. That is why they grow best in the spring and fall. Grass is one of the few plants that is vegetative in the fall as well as spring. After hot weather is over, grass starts to grow again and continues growth until the winter begins. Most other plants go through a regular cycle: germination, a vegetative stage, and finally reach maturity, when they produce seed for the succeeding season. This sequence is not true of lawn grass which is constantly clipped.

It is hardly necessary to mention the necessity or importance of moisture, for that is needed by all crops. Grass during a single growing season may use as much as 5,000 barrels of water per acre. Grass

The continuance of GOLF...



like the preservation of everything that represents the American way of living depends on **VICTORY**

Invasion comes high—in blood and money. Part of the cost must be paid with human life by our men on the fighting fronts. Our part of the cost, for those of us here on the home front, must be paid in cash . . . this September. On September 9th our Government starts the greatest drive in history—the 3rd War Loan. You, and every man and woman in America, are asked to invest in at least one extra \$100 War Bond. \$100 EXTRA, mind you—for everybody! Sure—it's going to be tough to dig up that extra money.

It's going to take more than spare cash this time. It means money we've tucked away—money that might have gone for anything that we can get along without. But we've got to do it—and we will! We'll do it because America is in the middle of the biggest, deadliest, dirtiest war in history, and we are Americans. The least we can do is to do our utmost to help end it quick with Victory. Let's be ready on September 9th to cut loose with every dollar we can muster together and put all of them in United States War Bonds.

★ ★ ★
BACK THE ATTACK  **With War Bonds!**

This space is a contribution to Victory today and sound business tomorrow by

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roots are comparatively shallow; confined mostly to the surface 3 or 4 inches of soil, although a few extend deeper to 7, 8, and even 9 inches. Since the majority are confined to the surface soil layer, it means that moisture must be there too. That is why grass thrives in a moist cool climate and is probably the reason Britain grows so much better grass than continental America. Some say it takes 100 years to produce a good lawn. I doubt that. The British are no better grass men than we are; in fact, many of them probably are not as good because it is so much easier to grow grass there than here. The only sections in this country where climatic conditions resemble those of Britain are along the coastal regions of New England and the Puget Sound section of Washington and Oregon. I have seen very fine grass in both sections, and know it is much simpler to maintain good turf in both regions than in places like St. Louis or Cincinnati. Just go to Kansas City, to Washington, Philadelphia, or St. Louis during July and August and see what a tough time it is for the boys there to keep good turf. The main trouble, of course, is the intense hot weather during the summer months.

1,500 Grass Species

Obviously, a grass suited to the soil and climatic environment should be selected. There are more than 1,500 identified grasses in the United States. If any of you doubt that fact, send to the Superintendent of Documents, Government Printing Office, Washington, D. C. for Hitchcock's book on the "Grasses of the United States"; of the large number listed therein, choice for courses in the north simmers to less than a dozen..

I like to divide grasses into two broad groups: "permanent" grasses and the so-called "temporary" ones. In the north, the permanent grasses include the blue grasses—Kentucky blue and Canada blue—the fescues, the bents, and poa trivialis. That pretty well exhausts the list used for fine turf.

Canada bluegrass is not desirable for fine turf because it does not produce a tight, closely-knit sod under close mowing. It will grow on poor soil, but that is its chief virtue. Some years ago a course in Ottawa installed a water system as a necessary step toward improving fairways. Their problem was really one of changing the type of grass too. Before fairways were watered, Canada bluegrass was the

only grass which would survive on the poor sand, but it didn't make a tight enough turf. Therefore, it was necessary to re-seed with a more desirable grass, and since the water system could provide needed additional moisture, it was possible to change the character of the turf and provide better playing fairways.

Kentucky bluegrass is the most widely used lawn grass throughout the northern sections of the United States. In almost every region, excepting New England and a few other localized spots, volunteer Kentucky bluegrass takes over whenever cultivated land is allowed to revert to grassland. In New England, Kentucky bluegrass does not volunteer because soils there are too acid and too low in phosphorus. Kentucky bluegrass is a lime-loving plant and grows best where phosphorus is plentiful too. Both conditions exist in the so-called "Blue Grass Region" of Kentucky and Tennessee.

In New England the native grasses are largely the bents—creeping, colonial, and even velvet bent. They grow on the more acid soils there.

Few Fescues Suitable

Of the fescues, from the standpoint of fine turf—we generally think of Chewing's fescue first. It is a red fescue. The seed originates in New Zealand and is called Chewing's fescue because a man by the name of Chewing introduced the grass into that country. The seed from New Zealand is preferable to European red fescue because it is free from sheeps fescue, which is too bunched and coarse for fine turf. There is some fescue seed being produced in this country, particularly under irrigation conditions in Oregon. Since fescue seed is comparatively large, much more seed is needed than when Kentucky bluegrass is used. So, if the price is high, seeding with fescue is especially expensive.

Originally the bent seed used in this country was the so-called "mixed" or "South German" bent, which was actually a mixture of different bents, as the name implies. There was 10 percent to 30 percent of velvet bent in the mixture, a variable amount of creeping bent along with some colonial bent. Since the creeping bent exhibits different characteristics both as to color and character of growth, an area seeded with mixed German bent looks like a patched quilt, due to localized spots of different grass. There are a few spots of velvet, and many others of different creeping bents, some quite coarse