hopper and fertilizer from the other. An ordinary fertilizer spreader can be used provided the outlet holes are spaced close and the seed is mixed with an inert carrier to provide bulk. Sand or dried activated sludge are good for this purpose. On small areas an inexpensive cyclone seeder is excellent, or a hand-operated fertilizer spreader can be used by bulking the seed with an inert carrier. After seeding some like to use a brush harrow before rolling with the Meeker. The rolling is important.

Depth of Planting

Depth of seed placement is dependent upon seed size. It is an axiom in agriculture that the smaller the seed the shallower the depth of planting. The same applies to golf courses. Bent grass seed and red top should stay at or near the surface, bluegrass should be within the top half-inch — and no deeper — whereas large seeded grasses, such as fescue, should be placed at a depth of one-half to three-quarters of an inch.

Rate of Seeding

Opinions differ widely about seeding rates. The farmer uses 10 to 15 lbs. of seed per acre on new pastures. He does not expect immediate cover. Fairway seeding rates in the past have been at rates of 100 to 300 lbs. per acre. As seed prices have advanced, the trend has been toward lower rates, especially when bent is in the mixture. There is always some mortality of seed. But at low seeding rates the actual numbers of seed is great. At 40 lbs. of seed per acre, the number of bluegrass seed is in the order of 100 million, and about 240 million bent grass seeds. These amounts correspond roughly to 2000 seeds per sq. ft. for bluegrass and 6000 seeds for bent grasses. Good seedbed preparation and a highly fertile soil are more vital than seeding rates. Alton Rabbitt showed the relationship between soil fertility and seeding rates. On fertile soil there was no advantage with seeding rates above 80 lbs. per acre, and the 40pound rate produced a good quality of turf, but the time required was a trifle longer.

On steep slopes subject to erosion, it is customary practice to include a little rye grass for quick growth to stop wash. The amount of seed per acre should be nominal in order not to check the development of the permanent turf grasses. A light cover of straw or marsh hay is another way to prevent wash. The highway people often disc a little straw into the soil during seedbed preparation for that purpose.

Give them a WARM-UP HOLE

near the first tee, with an



... where they can loosen up and get off to a good start ... where they can practice and take lessons when you're shy of shag boys. Clubs always profit when play improves.

THE EDERER "INVINCIBLE"



"Invincible" — the full size Ederer golf net is the standard throughout golfdom for outdoor or indoor instruction and practice. Hundreds of clubs and pros have found the "Invincible" one of their most popular and profitable features in developing better and happier players.

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Sturdy, compact, lightweight—handles the full range of iron and wood shots. Ideal for limited space practice, indoor or outdoor. Folds into a compact unit 3 ft, x $6\frac{1}{2}$ ft, x 5 in. Weighs 23 lbs. with backdrop.

Write for folder and price list.





Sodium Arsenite

(Continued from page 47) that plague known as crabgrass. A close examination of our greens this past winter shows little or no poa while our fairways are thoroughly infested. This one fact alone would make me want to use sodium arsenite since our heaviest play is in the Spring months and we know that poa definitely does not have the putting qualities of a fine rye green.

None of this type of work can be done without the support and wholehearted approval of your green chairman and his members. I inform the chairman about three weeks prior to spraying and he in turn with the professional tell the members of my intentions. There were some squawks at first but when they moved from rye to Bermuda without interference to play, the members backed us to the hilt. April, May, and June constitute a good forty percent of our yearly play so you can easily see what an important decision was made. THE END JUSTIFIES THE MEANS.

> GOLF BOOK S-GOLF BOOK SERVICE 42-05 Layton St., Elmhurst, N. Y.





ON SALE LP627—Large Keystone or Pear-Shape. Umbrelia straps, natural Tuftan Steerhide top cuff. Special wedge and

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WP874 — Head covers white welt and numerals. Extra long length.



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WP267—Sturdy 18inch carry-all bag. Extra side zipper for easy access. White welting.



Cash in on the big demand for these eye-catching, sales-catching plaid bags with matching accessories. Choice of red, blue or green plaid bag and accessories.

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Willie Low's Junior Classes Pay Off

Phoenix (Ariz.) CC Pro Willie Low has been conducting a junior golf program for children of club members since 1931 and he is sure the program has paid big dividends. He believes it's the oldest continuous program of its kind in Arizona and probably in the Southwest.

Boys from nine to 15, inclusive, are eligible to participate. Instruction starts each Nov. 1 and continues through May 15. Low furnishes free instruction, balls, and other equipment for the lessons.

Low and his instructors teach the game from the ground up, developing sound swings, technique, and golf etiquette. At the close of the season the club holds a junior golf tournament, providing cups and other trophies at the end of competition. Forty boys competed last year.

The boys are also given a dinner at Green Gables, one of Phoenix' fashionable night spots. Another reward is participation in the Phoenix Open golf clinic. The six boys with the best swings put on a brief exhibition during the clinic each January.

How does it pay off? Low sells the boys

virtually all their equipment, and his students become golfers (and golf equipment buyers) for life. Perhaps even more important is the good will the lessons create for the club with families and friends of the participants.

Caddies Can Increase Pro Market

There's more of a market and a sales force in caddies than pros generally realize. When there is something to be cleared out of a shop at a reduced price there usually are caddies or former caddies who would like to take advantage of the bargains. The caddies may be able to absorb this slow-moving merchandise without risking upsetting the market prices among members.

Use of pro shop merchandise as caddie prizes has paved the way to this market.

Former caddies who are working in office or factory jobs constitute a big and eager market for traded-in clubs. They not only buy for their own use but bring their friends shopping for these sets.

> —Jim Cockburn, Westwood CC, Clayton, Mo.



Bargain Counter Moves Goods in Pro Shop

Pat Markovich, pro at Richmond (Calif.) GC, has on a special counter and cabinet in his pro shop, merchandise on which he reduces the price every week until it's sold.

He displays apparel, shoes and clubs in this "bargain counter" space. The idea has moved merchandise and kept Pat's inventory down. He hasn't found that it has interfered with regular business but has made many sales to people who hadn't intended buying.

Club Managers' 1954 Meet at Atlanta, Feb. 7-10

Club Managers' Assn. of America will hold its 1954 convention at Hotel Biltmore, Atlanta, Ga., Feb. 7-10.

Georgian chapter CMAA has appointed a local advisory committee of Armand C. Chapeau, Sidney Herzenberg, C. B. Edwards, Clyde S. Mingledorff, J. R. Taylor and W. J. Yohannan to work with national officials planning the convention.

"GOLF DAY" MEDAL CAST



Sides of the medal to be awarded those who beat the Julius Boros round at Oakmont CC (Pittsburgh dist.) May 23 are shown above. Entry far in excess of 1952's 80,000 is expected

Entry far in excess of 1952's 80,000 is expected for the event which will be played by men and women at private clubs and on public and semipublic courses all over the country under club handicaps or handicaps by the Callaway system. Each entrant pays \$1. Proceeds are split between USO and worthy causes in golf.

This second annual event, like the first, is cosponsored by Life magazine and the PGA. Complete details and entry blanks may be secured from National Golf Day, 9 Rockefeller Plaza, New York 20.

P. TEE LEWIS' ORIGINAL GRIP WAX and LEATHER PRESERVATIVE "Imitated But Never Duplicated"

PROVEN PRODUCT FOR OVER 25 YEARS

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KANT-SLIP'S famous Solution G — Many have tried to duplicate the original KANT-SLIP formula, but none has succeeded • The liquid comes prepared in an attractive 2 or. screw-top bottle — 12 bottles to a carton • This has been an outstanding grip wax, and also a leather preservative and rejuvenator of proven merit • The solution may be applied to the palm of the hand, or the glove (whichever is desir-

also a leather preservative and rejuvenator of proven merit • The solution may be applied to the palm of the hand, or the glove (whichever is desirable), or directly on the grip. It allows the golfer to relax, and eliminates tension caused from overgripping • For that really tacky grip — use KANT-SLIP Solution G. **Price — \$3.60 per carton**

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CAKE ·	KANT-SL	

KANT-SLIP'S exclusive formula produces a wax that will not become sticky and gummy - even in extremely hot weather. It offers the proper amount of tackiness under all weather conditions * Another outstanding feature of KANT-SLIP is that it is completely sanitary, and offers a pleasing aroma * The very attractive pouch in which the cake is packaged is designed for easy application * KANT-SLIP is packaged -- I2 generous size cakes to a carton. The carton is specially designed to save space on your display counter * We believe that KANT-SLIP is superior to any other grip wax. Compare it. You be the judge. **Price -- \$3.60 per carton**

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Cut grass and weeds, trim hedges, prune and saw trees, dig and tamp electrically. WINCO Portable Economy-Engineered Generators provide plug-in power for lavor-saving electric tools, "Speedy-Shift" base for easy portability.

WINCHARGER CORPORATION, 2143 E. 7th St., Sioux City, Iowa A wholly owned subsidiary of Zenith Radio Corp. NEW 1953 MACGREGOR GOLF BAGS



Featured items in the new 1953 line of MacGregor golf bags. (L) Popular 8-in, round bag embossed in Natural Tuftan Steerhide has large combination ball and accessory pocket and large clothing pocket. It's available from pro shops in MacGregor red plaid only. (R) The new "Banjo" bag in popular price line has a roomy clothing pocket, a large accessory pocket and smaller ball pocket. It is made in red, blue or green combinations.

U.S. ENSOLITE PRACTICE BALL GETS NEW FEATURES



United States Rubber Co. Ensolite practice ball now has increased durability with a nylon coating which gives it sharper dimples, makes it lighter and keeps it clean longer.

The ball really looks like a golf ball. It indicates the type of shot that has been hit and with a solid smack will travel only about 90 ft. It has become a big pro-shop seller for indoor and yard practice.



AUTOETTE GOLFMOBILE GETS PRO O.K.

Joe Robinson, pro at Virginia CC, Long Beach, Calif., and (right) Henry Rob ertson discuss the Autoette electric Golf-



mobile which is getting a lot of use by players whose MDs have told them to ease up on walking. Pro rental business on the Autoette is substantial. A round, carrying two, uses only about 3 cents worth of electricity. At night the batteries are recharged.

Bob Jones travelled around the Masters' tournament in one of these silent vehicles.

Autoette Golfmobiles now are sold by dealers in Los Angeles, Long Beach, San Francisco, Salt Lake City, Buffalo, Dallas, Chicago and other cities.

HAGEN GIVES PROS HANDSOME APPOINTMENT BOOK

Walter Hagen div. Wilson Sporting Goods Co. salesmen are distributing to pros an attractive, sturdily-bound appointment book with half-hour lesson date



blanks. In addition to appointment record the book contains a club specification chart and pages for notes.

Hagen also is providing with each box of Hagen woods or irons a postcard that the buyer or pro can send to the Hagen factory at Grand Rapids, Mich., and receive a wallet-sized recorded card with registry number of the clubs for information in reordering duplicates. Jack says:

"THERE IS NO GOLF BAG MADE THAT DOES ITS JOB AS WELL AS THE LIGHTWEIGHT BALANCED GOLF BAG."

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15 CLUB CAPACITY COLOR - GREEN

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Minimum shipment-1/2 dox. ORDER NOW

BALANCED GOLF BAG 1401 W. North Ave. Chicago 22





How they sparkle, see how they shine, These Golfcraft built clubs of mine; Davie is blue and his hopes are dim, His chances today are very slim; So go home, Davie, and take a rest, No ball today to store in your nest; Golfcraft is the club with the guarantee, The feel and balance just suit me.

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Individual dies made to order especially to fit the Fulname machine. Your full name on the die.

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PRIME-MOVER ADDS POWER SPRAYER

Prime-Mover Co., Muscatine, Ia., has added a power sprayer attachment to its line of course maintenance accessories for use with their powered wheelbarrow. Like all Prime-Mover accessories, the sprayer



latches to the chassis for quick interchanging with the 10 cu. ft. bulk handling dump bucket, flat bed, or snow blade, and is powered from the take-off shaft of the Prime-Mover. The sprayer is 55 gal. capacity and comes equipped with an 18 ft. boom spray for weed control and general field spraying, and a hand hose for brush spraying, orchard spraying and special applications.

Danny Parrilli, well known in Chicago as salesman to pros, has joined staff of Ernie Sabayrac.



Golfdom

LIFETIME WHITE NEW SPALDING BALL COVER



"Lifetime" white now is cover on all Spalding balls. The cover was subjected to severe and prolonged tests by Spalding to prove that it resists scutfing, bruising and staining. Tests also demonstrated that the Lifetime cover doesn't turn yellow or chip but retains its sheen and whiteness.

NEW FOOT-JOY DISPLAY STAND

The Foot-Joy display stand, a new merchandising aid for the golf pro will enhance any corner of the pro shop, or be the center of attraction as a silent eye-



catching salesman. Made by Field and Flint, manufacturers of Foot-Joy golf and street shoes, this four foot unit is a helpful selling aid in any pro shop. Handsomely fashioned of wormy chestnut and having a simulated grass base, the unit holds from three to eight pairs of shoes and can be used to display all sports equipment; from golf clubs, bags, gloves, shirts, to socks, balls and jackets. For further information write Field and Flint, Brockton, Mass.





The Answer to Lost Spikes

CAM LOCKS have been added to the regular LARGE BASE spike. The CAMS hold spike fast in position. Will not rough sole.

F. C. PHILLIPS, INC. STOUGHTON, MASS.

JACOBSEN HAS MOWER SERVICE MEN IN NEW DIRECTORY

A service station directory listing all authorized service stations and servicing dealers for Jacobsen Mfg. Co. equipment and the equipment of the Worthington Mower Co. and Johnston Lawn Mower Co., divisions now is available on request from Jacobsen Mfg. Co., Racine, Wis.

WOOD BROS. ROTARY MOWERS NOW IN GOLF FIELD

Wood Bros. Mfg. Co., Oregon, Ill., makers of rotary mowers and cutters that have been used on farms for years, now are in golf. The Wood line includes 7 models, all for use with tractors. The models have 60 in., 80 in. and 114 in, cutting widths. All are ruggedly constructed.

The Wood machines can be operated with an attachment that mulches leaves.



Solon Center Bldg. • Solon, Ohio Exec. Office: 536 Terminal Tawer Cleveland 13, Ohio

"TURF KING" IS NEW PUTT PRACTICE DEVICE

Allied Golf Corp., 4538 Fullerton ave., Chicago 39, Ill., has introduced the Turf King putting practice combination of a strip of material having texture and appearance of grass green and a putting cup from which the ball can be ejected by a tap of the putter.

The "Turf King" has been warmly OKed by pros in the Chicago district to whom it has been shown by its inventor, a former asst. pro.

Neilson Wheel Co., 1614 N. 12th st., Milwaukee, Wis., has new "Stub-axle" wheel consisting of axle built into wheel. It is made for all light duty equipment, primarily rotary power mowers, bag carts and sprayers. Hubs are flush with the tires. Full details on request from the manufacturer.

It's NEW It's PROFITABLE It's PROFITABLE It's IN DEMAND WAR-MUP MAR-MUP The WEIGHTED Golf Hood US PATENT No. 2-116,655. Other patents pend. The only weighted hood on the market

One of a set of 4, matched head covers, it's already serving as a head cover for one of the woods. "Snap the Strap" and its ready for practice swings before or during the round. With pros, instructors and leading amateurs stressing the use of weighted heads for stronger wrists, better gripping and smoother swinging the WAR-MUP Weighted Hood is selling big as fast as the pros display them.



All WAR-MUP Hoods sold on a MONEY BACK GUARANTEE. Matched sets of WAR-MUP hoods (including the patented weighted hood) retail for \$7.50; the WAR-MUP weighted hood alone retails for \$3. Usual pro discounts. COD, or on open account accredited pro accounts.

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