organize and conduct extensive research of available material, write the greater part of the book, edit it after consultation on drafts of manuscript with the editorial board, and successfully complete the trying task of getting the job into print. General outline of the book was to make it a working manual that would be of value to the experienced superintendent as well as be of such plain, practical usefulness to enable the man with limited experience and in charge of a small course to improve the course's maintenance standard. Applying this broad scope is the job that Musser has accomplished with high satisfaction. His long and successful experience in turf research and in heading the Penn State greenkeeping courses is reflected in the intensely practical character of "Turf Management."

Chapter headings plainly show the full coverage of the contents. Chapters are: Broad Relationship in the Production of Special-purpose Turf; Soil and Turf Relationships; Fertilizers and Lime in Turf Production; Drainage and Irrigation; Special-purpose Turf Grasses; Turf Propaga-tion; Turf Maintenance; Weed Control; Turf Diseases and Related Damage; Control of Insects and Other Pests; Elements of Golf Course Design; Golf Course Operation.

The chapter on Golf Course Design was written by Robert Bruce Harris and Robert Trent Jones after consultation with their colleagues in the American Society of Golf Course Architects, and presents concise and illuminating fundamentals of course design. The chapter on Golf Course Operation was written by Farnham, in collaboration with T. M. Baumgartner, Sea Island Co.; Ray Gerber, Glen Oaks CC; W. H. Glover, Fairfax GC, and E. W. Van Gorder, Stanford University golf course.

The appendix contains many tables, charts and other data of frequent reference value.

The book is well illustrated and is written simply and compactly.

"Turf Management" is the answer to the oft-expressed need for a working textbook on golf turf.

Golf Courses-Design, Construction and Upkeep. Published by Sutton & Sons, Ltd., Reading Eng. Price \$5. ...

This is a revised and enlarged edition of the book Martin A. F. Sutton of the famed seed house edited and which appeared in its first edition in 1933. Comparison of the two editions shows the impressive advance of course maintenence science in the past 17 years. Sutton credits this advance to the scientists of the British Board of Greenkeeping Research and the USGA Green Section and association scientists at the state agricultural stations.

January, 1951





Here's a good money maker for pros and golf shops a cart that sells on sight!

- 1. Accommodates any style bag.
- 2. Opens and closes in a jiffy.
- 3. Light weight.
- 4. Rolls easily on silent, ball-bearing wheels when open or closed.
- 5. Strong. Precision built for long service.
- 6. Priced right.

Beckley-Ralston CHIPPER

It's the biggest selling "extra" club made and one of the famous square-grip short iron Stroke Savers. This Chipper is made specifically for pitch, run and chip shots within 50 yards of the green. It's 33" long and has practically no sole, permitting the club face to extend far under the ball. Gives golfers directional accuracy not possible with any other club.



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LARGE REPLACEMENT MARKET

Beckley-Ralston is one of the oldest and most honored names in golf. Over 1,000,000 of their Stroke Savers are in use—wearing out. Display the Chipper, Putter and Approach Cleek—then watch them sell! Nationally advertised \$9.50 each.

RUTLEDGE PUTTER, the perfect pendulum type with square grip \$9.50.

WALLOPER, the iron driver for players who have difficulty using woods, \$11.95.

TRAP SHOOTER, \$10.50.

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LAWN MOWER STATIONARY BLADES



We make these blades in several styles to fit the different makes and types of Lawn Mowers—including the small Hand Trimmer—Hand and Tee Mowers—Putting Green Mowers—Power Mowers and the large Gang or Fairway Mowers. Best quality knife steel, electric furnace heat treated to insure long wear and fully guaranteed to give complete satisfaction. You save important money buying direct from manufacturer. We pay the postage on all orders of \$10.00 and

Price sheet on request on JONES MOWER & EQUIPMENT CO. we will quote price for your blade order. 2418 Grasslyn Avenue, Havertown, Pa.

> duced maintenance costs as the American reader would prefer.

over.

The influence of the Scottish golf links on world golf course architecture by Philip Mackenzie Ross is an interesting presentation of the genius and luck of the unknown pioneer Scots who matched the terrain to the strategy of the game and allowed development of hazards at places where the ordinary Green committee would want hazards eliminated.

Robert Trent Jones has an excellent chapter on Golf Course Architecture in the U.S. which refers particularly to the new Peachtree course at Atlanta. Trent Jones was the architect of this course, working with Bob Jones. The adaptation of the Scotch influence as expressed when the late Dr. Alistair Mackenzie and Bob Jones collaborated on the Augusta National course, to the Peachtree course is especially worthy of study. Gentler greens countours and allowance for numerous significant placement of cups are two of the factors at Peachtree representing departures from the Augusta type.

Golf Courses Overseas by C. H. Alison and a chapter by T. Simpson on The Design and Construction of a Golf Course point out some differences between British and American practices. The Simpson material emphasizes soil conditioning and drainage and the appearance of naturalness. Simpson says that much of the construction work today is reconstruction but does not tell about the greater use of mechanical earth handling methods and the design-construction consideration of re-

The Sutton material on the Formation and Upkeep of Golf Courses and Putting Greens shows difference between British and American practice. The illustrations are many and informative. Differences in terms are somewhat confusing to the American reader but the illustrations often clear away the confusion. These 100 and more pages alone make the book one the American greenkeeper will want in his business library.

A chapter on Golf Club Management of special value to the British type of golf club, a delightful introduction by Bernard Darwin, a bibliography and an appendix of tables complete the useful book.

GOLF CLUB BUSINESS MOVES

(Continued from page 22)

conditions are plans of many clubs to install night lighting at practice tees as it is believed many players with crowded work schedules can make good use of the night exercise and recreation.

Public and fee course operators are wondering if the defense production schedule will stagger the off-days instead of having the customary Saturday and Sunday offdays. It was found during World War II that staggering off-days kept up plant output and reduced absenteeism. It, of course, would be desirable to spread the load on recreation facilities.



Old Orchard Turf Nurseries

From Rhode Island to California and from Wisconsin to Texas we have a creeping bent nursery near you to assure lower transportation charges, quicker service and fresher stolons.

For spring delivery we offer you a plentiful supply of Arlington C 1, Congressional C 19 and Old Orrhard C 52.

Please address all inquiries to

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P. O. Box 350

Madison 1, Wis.

THE GREENS ARE THE FOUNDATION OF ALL SUCCESSFUL GOLF COURSES.

National Industrial Conference Board recently completed a study in which it was found that a six-day, 48-hour week represents the best standard for efficient war production. Manpower shortages in wartime made labor efficiency and productivity matter of major concern. The Conference Board reported that analyses made by the Federal Bureau of Labor Statistics indicated that the six-day, 48-hour week was most productive for wartime, but the schedule might not prove equally as productive in peacetime. The study also found that when workers had no control of the speed of the work, output increased in the seven-day week, but so did spoilage, sickness and absenteeism.

N. Y.-Conn. Group Sponsors First Turf School

The N. Y.-Conn. Turf Improvement Association in conjunction with the N. Y. State College of Agriculture and Extension Service, sponsored the first Turf School in this area. The two day session in October, arranged by the association's education committee of Ed. P. Brady, N. Y. City Parks; Alex L. Edgar, St. Andrews; Joseph Flynn, Metropolis; Frank Malara, Knollwood; Doug L. Rankin, Westchester CC, and A. R. Twombly, was attended by more than 230 turf people from N. Y. and surrounding states.

The program that was developed included such notables as Drs. O. J. Noer, John F. Cornman and J. A. Adams. Drs. P. P. Pirone and John C. Schread discussed the



O. J. Noer, Milwaukee Sewerage Commission, addressing the N. Y. - Conn. Turf School using colored slides to illustrate his talk.

disease and insect problems. Mr. Gene C. Nutter, Chan W. Baker and W. R. Craig together with Rev. B. L. Massee filled out the panel of excellent speakers whose topics covered everything from crab grass to Labor-Management problems.

On display were numerous species of turf weeds, turf insects and several of the newer strains of turf grasses. The school met with such interest and enthusiasm that another is planned for in 1951.



Etonic Awards Prizes for "Daffy Shot" Contest

Etonic Shoes, Brockton, Mass., announces results of its popular "Daffy Shots" contest with the first prize, a week at Pinehurst with all expenses paid for pro and his member, won by John Davis, a member of Oswego (N.Y.) CC where John Lisk is pro.

The winning "goofy shot": "While playing the sixth hole at the Oswego Country Club with my regular Sunday 'gruesome foursome,' explains Mr. Davis, "I poled my second shot into the rough to the left of the green. After searching diligently, we found the ball nestled in some stubble amid acorns, etc., behind a tree and quite close to a projecting root of said tree. It was almost a stymie, but by playing the shot very close to the base of the large oak tree, I was able to make a try for the flag. I settled the spikes of my Etonic All-Weather golf shoes into the turf and struck the ball firmly with my No. 9 iron. Much to the amazement of my partners, and especially myself, when the shot was over, the ball was resting under my left arm-pit. Apparently, it had struck the root of the tree and skated up the base of the trunk in such a way as to kill its forward speed and cause it to arch back toward me.

Mr. Lewis Lassman, the contestant from Foxhills Golf Club, Culver City, California, and his club pro, Harry Bassler, both received handsome Hamilton wrist watches because, as Mr. Lassman explains it, "While playing Foxhills Golf Club I eagled the 9th hole, a 400 yd. hole, over a barranca. That in itself is not unusual, but the fact that the second shot was an eight foot putt is surprising, particularly since there was no help from the elements.

"Running parallel to the 9th hole on this course is the second, which is about 410 yards, both holes usually into the wind. On my tee shot I pushed the ball although it was well hit and it started out for the 2nd fairway. As it rolled slowly along, losing its momentum, it approached another golfer who was playing the 2nd hole. He went into his back-swing and swung at his ball with a wood, and lo and behold, my ball rolled into position so that instead of hitting his own, he hit **mine**.

"Off it sailed with a slight hook, well hit, and imagine the commotion and consternation (everybody, that is, except me), when it rolled onto my green about 8 feet from the pin. The putt was lucky. It's tough putting between chuckles."

A portable radio each was awarded to Hal Jernigan, a member of the Ashboro Golf Club, N. C., and his club pro, R. Jack Thomas, because his tee shot got caught by a different kind of trap—a mole trap 50 yds. away.

Cleve Turner of the Brinkly, Arkansas,

Golf Club and golf pro C. R. Wilkin will sport imported doeskin slacks, thanks to Mr. Turner's iron nerves and a convenient bird's nest.

Phil C. Richards, 1114 Cherry St., Saginaw, Mich., and Sam Molnar, pro at the Bridgeport Michigan Country Club, have received some handsome luggage.

From the Riverside Country Club of Carlsbad, N. M., came a sequence of events which won Etonic shoe wardrobes for club pro Bill Keith and golfer George Browder.

SHIRLEY SPORK JOINS GOLFCRAFT

Miss Shirley Spork has been appointed to the Advisory Staff of Golfcraft, Inc., it has been announced by Ted Woolley, pres. This coincides with Woolley's announcement of a new and different line of women's clubs, both woods and irons, which will be available Jan. 15 under Shirley's name.

Twenty-three-year-old Miss Spork began her golf career at the age of twelve at Bonnie Brook in Detroit, and is a former



Ted Woolley, President (L) and Fred Haas, Sr., Gen. Mgr. of the Pro Department, smile contentedly as Shirley Spork joins Golfcraff's Advisory Staff.

Detroit District Match and Medal Play Champion. In 1947 she won the National Intercollegiate Championship. She gained additional tournament experience as runner-up in the Michigan State Women's Tournament in '47 and '48 and as its champion in 1949.

A 1949 graduate of Michigan State Normal, Miss Spork majored in physical education and is at present instructor of physical education at Bowling Green State University in Ohio. She will play in several winter Women's PGA tournaments and on June 1, 1951, she will be on the tournament circuit both playing and giving exhibitions and clinics along the way. POWERED HAND TOOL



Chicago Wheel & Mfg. Co., 1101 W. Monroe St., Chicago 7, has new Coaches' Aid outfit of Handee line of portable drills and grinders. Among pro shop uses are repairing, identifying and cleaning playing equipment. Handee already is extensively used in golf course maintenance equipment shop operations.

NEW ACTION FOR NIGHT CRAWLER

Ferguson & Sons, Eau Claire, Mich., announce an improved action for their Night Crawler green aerifying machine which will be adaptable to units already in the field. The company says the new action means smoother and faster operation, deeper penetration, and practically no time breakage. Production is going ahead as fast as materials will allow and shipments are expected to start about Feb. 5. An operating model of the Night Crawler with the improved action will be shown at the NGSA Turf Conference and Show which opens in Chicago, Jan. 30.

OLD ORCHARD CELEBRATING 25th YEAR

The same strain of Old Orchard creeping bent developed by Old Orchard Turf Nurseries, Madison, Wis., in 1926 and planted in 1928 is still being used without replacement at Whiting CC, Stevens Point, Wis., reports R. R. Bond, nursery owner. Bond will have booth No. 15 at the National Turf Conference and Show which opens January 30 at the Sherman Hotel in Chicago. On display will be plots of sod showing C1 and C19, a mixture of these two and a plot of Old Orchard C52. Unclipped stolons of these various strains growing in flower pots also will be on display. Enlarged photos will show greens planted to various strains and a chart on "How to Plant Stolons and Produce Putting Surface in Eight Weeks" will be available for free distribution.

POSTHUMOUS AWARD



--photo courtesy Louisville Courier-Journal A plaque awarded posthumously to the late Ward A. Hillerich in appreciation for his contribution to golf by the Falls Cities Golf Association at its annual dinner at the Audubon CC, Louisville, Ky., is accepted by John A. Hillerich (center), brother of Ward. William Chandler, new pres. of the association is at the left and Col. Lee S. Read, retiring pres. is on the right.

WHY NOT THE BEST?

Get the famous HENRY Golf Ball Washer

- * Rugged design for trouble-free service
- * Modern appearance Dresses up the tees
- * Clean operation Doesn't splash
- ★ Heavy gauge, pressed, rust-proofed steel construction

Complete Unit \$16.35

Washer alone \$12.75

A. C. SCHENDEL, DISTRIBUTOR Henry Golf Ball Washer Waukesha 5, Wis.



ROSEMAN HAS NEW LIGHTWEIGHT ROLLER-FAIRWAY GANG MOWER

The Roseman Mower Corp., Evanston, Ill., has announced and will show for the first time at the 22nd National Turf Conference and Show at Chicago their improved model gang mower featuring a new lightweight hollow roller drive. The advan-



tages of mowing putting greens with roller drive mowers can now be applied to fairways to provide smoother, more uniformly cut turf with better playing surface. Also incorporated in the design of the new Roseman mower are several additional improvements of interest to progressive greenkeeping superintendents. A cordial invitation is extended to all greenkeepers in attendance at the show to inspect the improved Roseman mower. Those unable to attend are invited to write for additional information to the Roseman Mower Corporation, Evanston, Illinois.

PLASTIC BINDING FOR PNEU-MAT

Pneu-Mat Runners manufactured by Superior Rubber Mfg. Co., Inc., 122 East 25th St., New York, have been improved by using a vinyl binding in place of the rubber binding used for many years. The



spike-resistant Pneu-Mat Runners are most suitable for use in locker rooms and other locations where spike shoe traffic is heavy. Preliminary tests indicate the new vinyl binding will increase the durability of the runners under heavy traffic. Complete information available from the manufacturer on request.

SPALDING'S NEW 1951 TOP-FLITE IRONS



Johnny Palmer, Spalding Golf Consultant, who set a new competitive record at Pinehurst during the North-South Open Championship, with a 65 is shown above explaining features of Spalding's new 1951 Top-Filte Gold-Line Irons to Walter Burkemo. Johnny says they're the finest he's played with.

COLORFUL PLAID SPORTS CAP



Colorful plaid cap for men, women, and children. Made with solid crown panels, Texon visor with plaid underbrim. Model 441, available in small and large sizes with shirred elastic back which provides a complete range of sizes to fit all heads. One of the

new models in the 1951 line of Congo headwear made by The Brearley Co.

BILL BARBOUR REPRESENTING BURKE



William P. (Bill) Barbour, head pro at the Sleepy Hollow CC, Brecksville, O., is now representing Burke in the northern Ohio territory, Mr. J. T. Gilfillan, pres. of Burke Golf, Inc., Newark, Ohio, recently announced. Bill has been a member of the PGA since 1931, after winning the Cleveland Public

Links Championship. Head pro at Sleepy Hollow since 1938, and Cleveland District Open Champion in 1946, Bill Barbour has qualified five times in National PGA, the Cleveland District Open, and the U. S. Open. Bill holds the Sleepy Hollow course record with a 63, consisting of 9 birds and 9 pars. He will continue as head pro at Sleepy Hollow while contacting all golf clubs in the northern Ohio area for Burke Golf, Inc.

With the RYAN SOD POWER CUTTER One Man CUTS SOD

FASTER — up to 600 yds. per hour. CLEANER — oscillating, self-cleaning blade.

UNIFORM — thickness accurately controlled.

WITH SAVINGS UP TO 80%.

Cuts to uniform thickness 600 sq. yds. of Blue Grass, Bent or Bermuda sod per hour. Ideal for aerifying and sod replacement work.

K & N MACHINE WORKS 871 Edgerton St., St. Paul I, Minn.

WEST POINT INTRODUCES F-G '51

January 1951, West Point Lawn Products, West Point, Pa., is introducing the F-G '51, an improved F-G model aerifier. Hydraulic control, standard equipment on the '51, has been revamped. Both wheels are controlled by one cylinder so more uniform cultivation is possible. Cylinder is of adequate size to prevent leakage of fluid.

Improved disc-bearing construction; newly designed, more substantial spoons; positive depth adjustment; improved wheel mounting; fewer moving parts; sturdy one-piece hitches for the gang are other features of the F-G '51, which will be shown at the 22nd Annual Turf Conference and Show in Chicago.

25 YEARS FOR PHILADELPHIA TORO

More than 100 golf superintendents, club officials and manufacturers gathered Nov. 27 at Phil. Toro's offices, 1528 Belfield Ave., Philadelphia, to help celebrate the company's 25th anniversary and to honor T. L. Gustin, its founder and still very active head of the golf supply house. Gustin still has the company's first check book showing purchases from Toro Mfg. Co., Fate-Root-Heath, Chipman Chemical, Buckner, Bayer (DuPont) and other early birds in the turf products business. Born in Jasper county, Ill., Gustin started his



selling career with Rumley. After serving with several ag implement makers he was sent east by Bates Steel Mule Co., Joliet, Ill. How "Gus" won a Bates sales contest is a harrowing yarn that needs right smart



T. L. Gustin, founder of Phila. Toro Supply Co., receives plaque from Toro's sales mgr. Bob Gibson in commemoration of 25 years of service. Below, group attending the anniversary celebration.

tellin', some other time. Shortly after he opened the Philadelphia Toro Co., and has been "winning with service" ever since. Toro's pres., Dave Lille and sales mgr., Bob Gibson were on from Minneapolis to present Gustin a placque from the Toro organization congratulating him on a quar-





ter century of progress; progress that was highlighted the past year by the opening of a Baltimore branch.



Peggy Kirk joins the ranks of Alice and Marlene Bauer and Marilynn Smith to make up Spalding's Women's Golf Advisory staff. She is shown above at the time she signed with Spalding with L. E. Coleman, Vp in Charge of Sales, Looking on (L to R) are Leonard B. Schmutte, Findlay (O.) CC professional, a visitor to the Spalding plant, and M. J. Kiernan, Ass't. Vp in charge of golf.



NEW KLEARFLAX BROCHURE



Just published is this handsome brochure, "Carpet Artistry" by Klearflax ...16 pages showing the beauty of Klearflax carpets and rugs in traditional and modern settings. All Klearflax patterns, textures and colors in linen and wool are pre-

sented in a most interesting manner. Sample sent on request. Write to Klearflax, Dept. H., Duluth 7, Minnesota.

JACOBSEN-WORTHINGTON EXHIBIT AT NGSA

J a c o b s e n and Jacobsen-Worthington equipment which will be shown at the NGSA exhibit will include the new 21-inch rear-drive Manor, the Estate 24, and the 1951 model of the Jacobsen power greensmower.

From its wide range of rotary disc mowers, Jacobsen-Worthington has selected the Model 20 and heavy-duty Model 37 to exhibit. Growing favorites among greenkeepers, the rotary disc mowers have





ton is showing the front-drive, Model F Chief Tractor, equipped with hydraulic gang mower control; the Model G Tractor, and one of the various types of Worthington gang mowers.

On hand to renew old friendships from the Jacobsen-Worthington organization will be Orv Lawson, Bill Roulette, Purdy Carson and Lee Wells.

SOMETHING NEW FOR GOLFERS



A belt that expands without springs. When golfing, the elastic backed finger gorings hold golf tees. Remove the golf tees, and you have an all-occasion sport belt for the man of action. Made of grain leather by Tex Tan of Yoakum (Texas) — Texas Tanning & Mfg. Co., Yoakum, Tex.



West Point, Pa., which has been enlarged

during the past year for increased produc-

Greenkeepers take over plant at West Point Lawn Products' open house where they viewed Aerifier manufacturing operations.

tion. Visitors toured the building and saw the operations that go into making Aerifiers.

Phila. superintendents following the inspection tour, held a meeting to discuss their experiences with the Aerifier. Meeting was opened by Jim Conway, president of the Phila. Association. Charles K. Hallo-



PRO FINISHED PERSIMMON HEADS WOODS HAND MADE TO ORDER WON-PUTT ALUMINUM PUTTERS Quick Service on All Types of Repair Work. Bert Dargie Golf Co.

2883 Poplar Avenue, Memphis 11, Tenn.

January, 1951



well, Phila. Agricultural Extension Representative, led the discussion period which followed. Information which comes out of these discussions is used to answer numerous questions about the importance of aerifying. Hallowell emphasized the great need for education, using printed matter, field days, conferences, and pictures.

Tom Mascaro showed slides of the causes for poor turf. Superintendents then took over the discussion of the "Who, Why, What, When and How" of aerifying. It was agreed that no great mechanical skill is needed in order to operate an aerifier, but some knowledge of what is to be accomplished is desirable. Operator should realize that some spots need special attention. Should employ common sense to determine how much care is needed to avoid surface disturbance while getting maximum cultivation.

Root growth tops the list of reasons for aerifying. Better roots improve the soil, help to reduce compaction, make for greater drought-tolerance, make healthier more disease-resistant plants, provide the better cushion which appeals to the golfers.

Aerification is an essential part of the fall renovation program. Springtime aerification has a place; during an open winter play continues on wet soil and causes compaction. Aerification can be done whenever it is needed. If trouble strikes in midsummer, something can be done about it. With reasonable care afterward, turf can be brought back perfectly after aerifying in hot weather.

It is desirable to cultivate soil as thoroughly as possible without unduly roughening the surface. Deep aerification is needed to encourage deep root growth; shallower cultivation may be used in preparation of a seedbed. Power aerification is rapid, but emphasis should not be on speed alone. Work should be done carefully. Finishing operations should be done properly. Three-quarter inch spoons have the most nearly universal application.

Following the discussion, guests were introduced - Amos Kirby, farm editor, WCAU; Al Cooper, Penn State College extension agronomist; R. G. Waltz, Montgomery County Agent; H. O. Wilcox, Delaware County Agent; A. O. Rasmussen, Orna-mental Horticulture Extension Specialist; Bill Bengeyfield, Ass't County Agent, Westchester County, N. Y.; a group from the New Jersey and New York area; Al Radko, Dr. Marvin Ferguson and Dr. Fred V. Grau of the USGA Green Section. Dr. Ferguson pointed out that aerifying by machine has become possible only recently. Practical application of the new method is far ahead of research. West Point Lawn Products provided a fellowship at Penn State College to acquire more exact data on aerifying.