"Light and frequent feedings with Agrico, applied hydraulically, measurably improved our turf."

"Agrico Country Club Fertilizers have been used for 16 years here at Marshfield (Mass.) Country Club," says Melvin O'Kelly, superintendent. "Our soils here at Marshfield are on the sandy side. Despite this condition, light frequent applications of Agrico Country Club Fertilizers always keep our grasses in excellent shape. We play year-round, weather permitting, and with Agrico, even in the Fall, our fairways are springtime green." An Agrico Country Club-Agrinite Feeding Program will serve your course, too! Call your Agrico man or write: American Agricultural Chemical Co., New York, N.Y. or Agricultural Chemicals Ltd., Toronto 15, Ont.
SKINNER
... the oldest and most experienced name in irrigation

Over 60 years of irrigation research, design and manufacturing experience is built into Skinner products of today to assure you efficient, economical golf course watering—either manual or automatic.

Skinner sprinklers—made in a complete range of types and sizes—distribute water uniformly and slowly with maximum coverage at minimum pressure. The patented Skinner quick-coupling turf valve is the only bayonet type valve that can be cleaned and repaired without being removed from the riser—and without disturbing the turf.

Whatever your watering requirements may be, it will pay you to investigate Skinner.

Write today for complete information!

THE SKINNER IRRIGATION COMPANY, 415 WATER ST., TROY, OHIO

plans $200,000 improvement and expansion program including clubhouse remodeling... New resort in the Union, Ore., area will include course, air strip and heated pool... Claxton, Ga., is considering 9-hole muny... Perryville (Mo.) CC has opened 9-hole course... Membership deadline has been set for Van Zandt County (Tex.) Recreation Club... Tentative approval has been given for $250,000 loan for Van Zandt recreation setup including $80,000 allotted for course.

Los Angeles's old Roosevelt course is used as part of the new Greater Los Angeles zoo, but new Roosevelt layout has been completed in the city's Griffith Park... Cherry Hill GC in Amherst, Mass., designed by Howard Gibbs, is expected to be opened next summer... The new Tacoma (Wash.) G&CC clubhouse will be ready for this year's Christmas-season parties... Tacoma has been without a clubhouse since the old one burned in 1961... Seward, Neb., hopes to have new 9-hole course open this fall.

Canyon Crest CC in Riverside, Calif., has course and clubhouse under construction... Madison, W. Va., is the site for the Riverview CC now under construction with an April 1, 1965, target date... Course at Amory (Miss.) GC is near completion... Eighteen-hole Charming-fare Links in Candia, N.H., opened late in June.

Construction contract has been signed for new course at Chicopee, Mass... Eighteen holes are planned and contract covering 83 per cent of the work is for about $150,000... New course construction progressing at Nunda, N.Y., site of a 9-hole layout... The old Kinsman CC in Orland Park, Ill., has changed hands and is now called Eldorado CC... New management at Eldorado has planted over 3,000 trees, rebuilt greens and constructed a new clubhouse.

Dave Davis, pro at the VFW CC in Indiana, Pa., has second nine in play... Cal Polseon, supt. at Aberdeen (S.D.), CC, expects new grass to be well enough established to permit play on the 18-hole course by the middle of this
There'll be no burning of your turf when you apply Nitroform®, Hercules Powder Company’s turf food, according to directions. It feeds nitrogen at the slow rate turf demands... lasting up to five times longer than conventional fertilizer. Nitroform saves money, because fewer applications are needed. It contains a whopping 38% nitrogen, so fewer bags are required. You won't have the storage and handling problems of low-analysis materials.

Nitroform is available in two easy-to-use forms: Blue Chip® granules for conventional spreading and Powder Blue® for liquid application. Both have the same slow-release, non-burning properties. There are other advantages to Nitroform. It doesn't leach away; it builds a nitrogen reserve; it is easy to handle; and it's odorless.

Your Hercules representative is burning to give you the complete score. Listen, but don't ask him to play the violin.
Want Championship Greens?

Then plant Warren - STOLONS
Grown on Sterilized Soil
DEFLOWERED BEFORE SEEDING TIME TO
PREVENT CROSS POLLENIZATION
Field sterilization assures purity of strain — prevents Poa Annua — eliminates off-strains of Bent — kills weed seeds.

Pure strain foundation stolons grown on sterilized soil result in velvet smooth greens of uniform texture and color.

Our research has shown that when greens are grown with Bent seed, there can literally be hundreds of variations in color and texture from the same seed bag, because of the variability of seed. People illustrate this principle: a dark-haired mother and blond father could have a red-haired child.

When greens are grown from stolons, it is the same individual plants which grow again. Therefore, uniformity is maintained in color and texture of the grass.*

*For further information on this subject, check coupon.

Warren's TURF NURSERY
8400 W. 111th St., Palos Park, Illinois
Send us details on beautiful, hardy, vigorous greens and tees with Warren's Stolons • Warren'Sod

FREE LITERATURE
☐ "Construction and Planting of Putting Greens with Creeping Bent Sod or Stolons."
☐ "Genetic Variability in Creeping Bent" A study of seed versus stolons for planting putting greens.

Club Name
Address
City Zone State
Superintendent

For Perfect Putting-Greens
PLANT
Warren'Sod or
Warren' STOLONS

Shipped anywhere on the North American Continent within forty-eight hours
Golf course superintendents from New York to California — from Mexico to Canada are numbered among our satisfied customers.

Ask about our new Putting Green Bluegrass Sod for easier maintenance. Ideal for Par 3 courses, home putting greens, Motels, Clubs.

For further information on this subject, check coupon.

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SOLVE all your TURF PROBLEMS!

—with products of proven effectiveness
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a specialized line of

- LIQUID FERTILIZERS
- FUNGICIDES
- HERBICIDES
- INSECTICIDES
- WETTING AGENTS

PROVEN SATISFACTION since 1939

write for FREE 1964 catalogue

American Liquid Fertilizer Co., Inc., and Rokeby Chemical Co.
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month . . . Oswego (N.Y.) CC has pur-
chased 70 acres for possible future ex-
ansion . . . The club now has nine holes
and is planning expansion to 18.

Cincinnati, O., park officials are urging
construction of second 9-hole course at
Reeves Field . . . Nine-hole course is
scheduled for Grafton, W. Va. . . . It
was designed by the owner, Frank Kunst,
and Dazzy Vance, pro at Bridgeport CC
in Clarkeburg, W. Va. . . . The Erie
GC in Erie, Pa., may relocate several
holes in a hilly area of the course to
facilitate construction of ski facilities . . .
Chamber of Commerce in Weslaco, Tex.,
is studying possibilities of building a
community course.

Front nine opened early last month at
Benjamin W. Hawes CC in Owensboro,
Ky. . . . Blackhawk GC in Janesville,
Wis., will have nine holes plus clubhouse
. . . Sarasota, Fla., recently erected a
plaque commemorating Giseppe Golf
Course which existed until 1925 and is
said to have been in existence in 1886
. . . Press reception was being held at
the new Forest Lakes CC, also in Sara-
sota, while Giseppe ceremony was going
on.

Portland, Me., is considering bidding
for federal aid under open space land
preservation program to expand Riverside
Muny . . . Velleaire GC in North Royal-
ton, O., has 18 holes and clubhouse un-
der construction . . . Harold Paddock,
Sr., is the architect for Velleaire . . . In-
terest is being shown in 200 acres located
in Cairo, N.Y., and owned by Greene
County, as possible course site . . . In-
dian Hills GC in Corning, N.Y., opened
during the 4th of July weekend . . . Up-
ner Brookville, N.Y., has given zoning
okay to new club on Mill River Road,
Chestnut Ridge, an 18-hole course in
Blairsville, Pa., designed by James Har-
rison and Fred Garbin, opened in late
June.

The new Green Meadows GC in Mt.
Holly, N.C., opened nine holes early in
July and plans immediate expansion to
18 . . . Fairway Farms, three miles east
of Lancaster, Pa., is scheduled to be
ready for play this fall . . . Proposed 18-

(Continued on page 75)
10 Years of Equipment Sales

**BALLS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Pro Brands</th>
<th>Other</th>
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**IRONS**

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**WOODS**

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<td>1953</td>
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**BAGS**

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Golf Goods Accounts for 44 Per Cent of Sports Equipment Sales

Golf again is far ahead of any other sport in equipment sales as reported in the Athletics Goods Manufacturers Association census report for 1963.

On the basis of manufacturers’ selling prices, including federal excise tax, golf equipment accounted for $119,352,933 of a total of $251,497,795.

Other classifications reported these sales:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Baseball and softball equipment</td>
<td>$36,912,339</td>
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<tr>
<td>Athletic shoes</td>
<td>$33,154,647</td>
</tr>
<tr>
<td>Inflated goods</td>
<td>$21,819,211</td>
</tr>
<tr>
<td>Athletic clothing</td>
<td>$9,989,139</td>
</tr>
<tr>
<td>Tennis, badminton and related equipment</td>
<td>$9,969,736</td>
</tr>
<tr>
<td>Helmets and pads</td>
<td>$6,540,702</td>
</tr>
<tr>
<td>Bowling bags</td>
<td>$3,535,819</td>
</tr>
<tr>
<td>Boxing gloves</td>
<td>$230,431</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$12,992,838</td>
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</tbody>
</table>

The overall picture shows golf goods accounting for 44 per cent of the total, about the same as in 1962 when golf equipment sales amounted to $110,361,324 of the reporting sports total of $241,563,826.

Average Club Value — $6.51

Golf’s 1963 total sales were 10,000,279 clubs (7,140,396 irons and 2,859,883 woods) at a value of $65,133,965 for an average value of $6.51 at the manufacturers’ price, plus excise. This volume indicates that a golfer buys an average of 1½ clubs a year.

Ball sales were reported as 5,694,329 dozen at an average price of $7.18 per dozen (manufacturers’ price). This means that a golfer buys slightly less than a dozen balls a year.

The figures reported in the AGMA census probably account for about 95 per cent of the clubs manufactured and possibly 80 per cent of the balls. A good deal of unreported equipment production is in lower price brackets.

There Is A Difference

Reference in the charts on page 26 to “pro brands” does not necessarily mean brands bearing the names of different professionals, but pro-quality merchandise. Several brands that bear the names of professionals are retailed through sporting good stores, discount houses, etc. Ninety per cent of quality golf goods is sold through pro shops, according to estimates.

Pro quality ball sales increased slightly in percentage over the previous year. In 1963, pro type balls with an average manufacturers’ selling price of $9.18 a dozen accounted for sales of 2,965,014 dozen of 5,694,329 dozen. There were 462,184 dozen more balls sold in 1963 than in 1962.

Making allowance for a price differential in pro-quality woods and a change in

(Continued on page 58)
A California architect has used a different kind of a twist in the design of Saticoy CC's clubhouse ... It keeps the weight off the walls, has eased the strain on building costs.

By M. Morris Moore

Innovations in clubhouse construction at the new Saticoy Country Club, near Ventura, Calif., have resulted in savings estimated at about $50,000 in construction costs and perhaps even larger amounts in maintenance, according to Joseph G. Seward, club president.

The split-level clubhouse, completed in June, was built for $200,000, or $50,000 under original estimates. Total cost is about $13 per square foot.

Architect Fred Hummel, of Ventura, is the bright young man behind the dra-
Mr. Consistency* hits it a Maxfli mile

And when your golfers need two big drives... one from the tee, one from the fairway on the par 5's... that's where their Super Maxfli comes in. No other ball gives them more yards per shot. Continuing tests prove it. Then when they go for the bird... their Super Maxfli holds its line from anywhere on the green. And its gleaming white finish comes shining through round after round. Super Maxfli. Make sure you've got plenty on hand.

*Dow Finsterwald, Dunlop Golf Advisory Staff member.

Dunlop

SPORTS DIVISION 500 Fifth Avenue, New York, N.Y. 10036

August, 1964
matic savings. His innovations are in his words, "simply new applications of well known principles."

Reverse stress is the major innovation. Results of the reverse stress show in numerous places, and unless explained, look to the uninitiate like heavy beams and pillars resting on thin strips of steel.

**Tie Units Together**

Therein lies Hummel's method. The beams and pillars do not rest on the steel plates, and are not being held up by them. They are connected to each other by the plates and are held together by them. But the plates do not bear downward pressure. Rather they, in effect, keep the structural units from flying apart.

"This method makes the building stronger and more rigid," Hummel says, "and makes it easier to construct."

Hummel estimates that this method saved approximately $10,000 of the original $250,000 estimate, and cut construction time by two to three months.

Hummel explains "reverse stress" this way: "Most buildings rest their roof and ceiling weight on the outside walls, or on pillars. But in this building the walls serve as fulcrum points, and the pillars hold the roof beams down, not up."

**Outer Ends Lifted**

Hummel's unusual construction method calls for the roof beams to be joined at the center of the span with steel plates he designed for the purpose. There are no tie rods, no trusses, no ridge beams. The weight of the beams, plus the weight of the roof, pushes downward and the outside walls act as fulcrum points, tending to lift the outer ends upward — hence

(Continued on page 66)