

THE UNITED STATES OF AMERICA

UNITED STATES PATENT OFFICE
PATENT NO.

228,355

GOLF CLUB HEAD

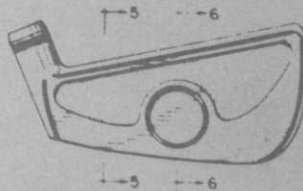
Toney Gerald Penna, 17 Ocean Drive,
Jupiter, Fla. 33458

Filed Jan. 19, 1972. Ser. No. 219,199

Term of patent 14 years

Int. Cl. D21-02

U.S. Cl. D34-5 GH



In testimony whereof I have hereunto set my
hand, and caused the seal of the Patent Office
to be affixed at the City of Washington
this eleventh day of September
in the year of our Lord, one thousand nine
hundred and seventy-three and of the
Independence of the United States of America
hundred and ninety-eight

Attest:

Edward C. ...
Attesting Officer

Robert ...
Commissioner of Patents

GOLF BAG STORAGE RACKS



TRADE

MARK

38 YEARS IN BUSINESS
Call Collect 301-322-3900
Or Write For Free Literature

INSTALLATIONS INCLUDE:

Chevy Chase C.C., Chevy Chase, Md.
 Congressional C.C., Bethesda, Md.
 Garden City G.C., Garden City, N.Y.
 Dunbar C.C., Lake Arrowhead, Calif.
 Scarsdale G.C., Hartsdale, N.Y.
 Royal Poinciana G.C., Naples, Fla.
 Longboat Key C.C., Sarasota, Fla.
 Woodbridge C.C., Woodbridge, Conn.

IMPROVE BAG STORAGE BEST BY TEST

**WE DESIGN YOUR LAYOUT—
 ECONOMICAL—EASY TO
 ASSEMBLE HEAVY DUTY
 FURNITURE STEEL—
 NO OTHER PARTS TO BUY—**



ACME IRON WORKS, INC.

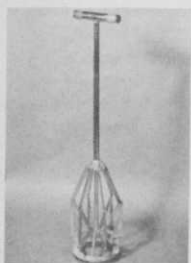
4900 Frolich Lane, Kenilworth Ind. Park
 Tuxedo, Md. 20781

Circle No. 174 on Reader Service Card

NOW A NEW CONCEPT
 IN REPAIRING BALL MARKS
 SHUR-WAY DIVOT FIXER
 DEVELOPED BY GREENS PEOPLE
 FOR GREENS PEOPLE

NEW CONCEPT ...

FORCES NEW GRASS AND ROOTS
 FROM AROUND INJURED AREA
 INTO CENTER TO HIDE BALL MARK.



WILL REPAIR 12 PER MINUTE

(Can also be used as hand, aerifer.)

SHUR-WAY DEVELOPMENT CO.

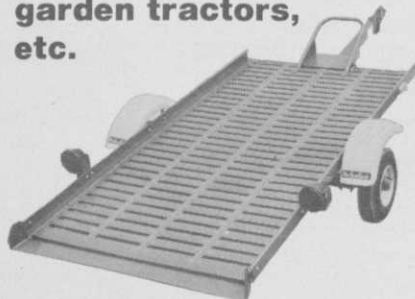
208 FIRST STREET
 ALTOONA, IOWA 50009
 515-967-3234

Circle No. 180 on Reader Service Card

not only will this
**all-purpose
 trailer**
 carry your golf cart



but it also will
**handle snowmobiles,
 garden tractors,
 etc.**



write for catalog
HOLSCLAW BROS., INC.
 414 N. Willow Road
 Evansville, Ind. 47711

Circle No. 153 on Reader Service Card

GRAU *from page 9*

4) zoning restrictions deny you the pleasure/pain of running sheep. I know that sheep crop grass about as closely as that of a mower; that pastures where they graze have turf equivalent to that of excellent fairways; that they eat weeds, too. Let's hear it for the sheep. Who will be the first to report?

Q—*It seems that, in this global search for energy, always we seem to fall back on petroleum. We are not told enough about how alternative forms of energy can be tapped. We know that you can't expound in this limited space, but what can we look forward to, as gas and oil become more scarce and expensive?* (Ohio)

A—I read the other day that the sun in two days pours as much energy on the earth as has been stored in fossil fuel since time began. Solar power can be used to convert sea water into hydrogen (H), which is the cleanest fuel known. When it burns, the "waste" product is water.

Nuclear power also can be used to produce H. Trouble is, there is a prejudice against its use.

Electric power is sheer convenience, but the efficiency is wastefully low. New power plants will cost much more to build because of inflation and sharply increased labor costs, transmission lines and appliances. New fuel cells can produce electric power directly at a high level of efficiency.

Geothermal energy has been with us since the beginning, but man has been slow to learn how to tap this source. Active volcanoes and hot springs show us the way.

The sun is being used to heat buildings and, by heat exchangers, to cool them. We will see more of this development.

The sun is the sole source of energy for the production of crops, forests and everything that grows, walks, crawls, flies or swims. Through photosynthesis, it continually renews plant growth, which is a tremendous source of energy, if only we could learn how to use it.

Methanol (CH₃OH) has been shown to be superior to H in several ways and can be mixed with gasoline to provide better performance at lower cost. Think of methanol as two molecules of hydrogen (H) gas made liquid by one molecule of carbon monoxide (CO). Methanol can be

continued on page 14

The No. 1 name in golf course irrigation...



TORO[®]



4th hole at Pine Valley

The country's top golf courses use TORO irrigation systems. For a number of very good reasons:

REPEAT CYCLE WATERING—TORO makes it practical. So you automatically get just the right amount of water for your soil and terrain. At the right time. And for the right price.

CUSTOM TAILORING—TORO automatic sprinkling systems are tailored to your specific requirements. No two golf courses are alike...so no two TORO systems are the same.

THE STRONG, SILENT TYPE—TORO sprinkler heads are made of tough CYCOLAC. Gear driven so they're consistent and night-time quiet. Self-contained and sealed so a few grains of sand can't bring things to a grinding halt.

VALVE-IN-HEAD SPRINKLERS—This TORO exclusive eliminates line drain puddles and damaged turf.

VARIABLE SPEED GEAR DRIVES—Nobody but TORO lets your sprinkling patterns overlap without overwatering.

EASY EVERYTHING—Easy servicing...from top to bottom instead of vice versa. Easy installation. Easy conversion...with TORO's big, adaptable assortment of head sizes and variations.

MORE THAN 50 YEARS OF EXPERTISE—TORO's learned a lot about total turf care in 50 years. And all that experience is available to you whenever you need it through our distributor network.

If you've seen a totally TORO golf course lately, we'll let the results speak for themselves. If you haven't, let us tell you more. Write TORO Irrigation Division, Dept. G-574, P.O. Box 489, Riverside, CA 92502.

THIS IS WHAT MAKES OUR NEW SUPER SOX SUPER.

It's our great fat fluffy pom poms that are going to give your sales a big fat boost.

Wait till your customers see that Super Sox are made of 100% Creslan® acrylic fiber.* So they can wash them all they want without worrying about shrinking, stretching or fading those bright bouncy colors. And they are available in 17 different color combinations. Super Sox. They make sense. And sales.

*exclusive of ornamentation

SUPER SOX
SUPER-POM
KNIT CLUB SOX

Reliable of Milwaukee

233 E. Chicago Street, Milwaukee, Wisconsin 53202



Creslan
 LUXURY ACRYLIC FIBER

Complete set of four nos. 1, X, 3, and 4

Suggested retail (shown—Style #5030) \$6.00 each. Other knit club sox styles to retail from \$2.00 each. Write for catalog showing complete line of golf accessories.

Creslan acrylic fiber is a product of American Cyanamid Company, Wayne, N. J.

Circle No. 171 on Reader Service Card

GRAU from page 12

produced in huge quantities from any organic source, including farm and municipal wastes (manure, sewage). This is an exciting potential for producing cheap fuel and for cleaning up our environment. Methanol works well in fuel cells. You might want to research the subject of alternative energy sources further by reading *Science*, Vol.182, N. 4119, December 28, 1973, pp. 1299-1304, by T. B. Reed and R. M. Lerner.

Q—Suppose we were to stop treating our fairways with fungicides and other chemicals, either by choice or by decree, can you predict what might happen? (Illinois)

A—That is an interesting and wide-ranging question. I am not sure I can answer it completely or in depth. I recall how the late Marshall Farnham looked at an attack of dollarspot on mixed Kentucky blue-bent fairways at the Philadelphia CC some 40 years ago. He actually welcomed the onslaught and explained it this way: "Dollarspot attacks the more susceptible plants, which I don't want anyway. It thins the turf and delays thatch buildup. Golfers hardly notice it and the playing quality is not affected!" I can add that the resistant plants then have a better chance to spread and form a better, more resistant turf. Weeds will increase, but that's not the end of the world. Golfers have hit shots from weedy turf before this advent of selective weed killers and they can do it again. No one will be very happy, but we may have to do some adjusting. Insects will play havoc if uncontrolled. We need to accelerate our research in biological controls, if chemicals are denied us. Also, we must find those grasses that can survive insect infestations. We should be looking for these types every day. To be denied chemicals will be a profound shock, but it won't be the end of golf. □

CONVENIENT SHOPPING

For more information about the products advertised in the pages of **GOLFDOM**—use the postage-paid Reader Service Card in this issue. Just circle the number appearing in the ad on the Reader Service Card, which you will find in the front of this issue.

WHEN IT'S
PYTHIUM
SEASON!

Mallinckrodt

KOBAN®

BRAND TURF FUNGICIDE

IS YOUR POSITIVE
CONTROL...BOTH
PREVENTIVE AND
CURATIVE!

Once the early morning combination of temperature and relative humidity exceeds 150°, the Pythium season already has started! KOBAN is the most effective Pythium control known, when used either preventively or curatively. Even if Pythium already has started, a single KOBAN application will stop it . . . and keep it controlled . . . for 5 to 10 days! KOBAN can be used any time, day or night, because it's *not light sensitive*. Don't wait for the Pythium season, plan your prevention program now, *with KOBAN!* Get it from your Mallinckrodt distributor today!

Ask your distributor for free Mallinckrodt booklet.

Mallinckrodt®

MALLINCKRODT CHEMICAL WORKS
St. Louis
Jersey City • Los Angeles • Montreal

Turf
Improvement and
Protection
System

Circle No. 168 on Reader Service Card

Westinghouse golf cars tackled the Baja. And beat this tough, rugged waste.

We drove our cars into the formidable Baja.* Dust, sand, rocks, and brush. Westinghouse electric golf cars took them all on and won. How tough is your course?

Westinghouse electrics deliver. Powerful. Ruggedly reliable. Built to take it mile after mile when the going gets rough. And they're priced right to help you make money.

Safe, too, with automotive-type brakes on both rear

wheels. The important thing is they're built to operate from dawn 'til dusk, day after day, on an overnight charge.

Looking for power? Reliability? Look to Westinghouse electrics. Westinghouse Electric Vehicles, Westinghouse Building, Pittsburgh, Pennsylvania 15222.

*Test sanctioned by the U.S. Auto Club with Westinghouse 3- and 4-wheel golf cars using six 110-minute batteries.

Circle No. 145 on Reader Service Card

MR-14-73



You can be sure...if it's Westinghouse





HERB GRAFFIS

SWINGING AROUND GOLF

SPORTS AGENT: BUCKY WOY'S STORY OF NO EASY BUCK

Bucky Woy has turned over to his publishers the manuscript of his book, "Sports Agent." The book carries the subtitle, "A Hard Way to Make an Easy Living."

Bucky Woy is a smart and lucky young man who is valuable to golf. He graduated from caddie ranks to become assistant to Bruce Herd, professional at the Flossmoor (Ill.) CC. Herd, a nephew of the famed Sandy, winner of a British Open and of Fred, winner of the fourth United States Golf Assn. Open in 1898, is one of those pros who shines with the brightest class in professional and amateur sports. He loves golf.

The Herd family is devoted to golf and golfers. The game has benefitted immensely by this spirit of help, which has been typical of America's old professionals. It's what has made golf the third largest sports business, running after hunting and fishing and boating.

That inspiring evangelistic compulsion of golf's founding fathers rubbed into Bucky Woy from his mentor Bruce Herd. He took it with him when he got his own pro job.

Then the sports agency business exploded, and Bucky got into it.

The pro agent business had begun to grow to fill a vacuum of exploitation in golf after the Hagen-Harlow pioneering combination had discovered the money in fun, and Fred Corcoran with Snead, Tony Lema and few others, including baseball great Ted Williams, had shown that sports show business and commerce, strictly for the cash register, could be paired.

Sports managers generally were not in good repute when Bucky Woy brought his application of the traditional moral standards of the game into player business management. It was, and still is, said of the come-

latelys, who handled their clients the same way Lucky Luciano and Al Capone handled their strings of girls, that never have so few done so little for golf and have taken so much.

Woy signed Lee Trevino when Trevino was a diamond in the rough, and considerably more rough than a diamond. Woy taught Trevino what he owed to golf.

The Woy-Trevino team was broken when men, who owned two-thirds of Trevino, were dissatisfied with Woy's steady, long-term profit rather than the pounding of avarice. When the suit was settled, Woy got \$250,000. Part of that was invested in a golf course that now seems to be a real estate investment with exceptionally high return in prospect.

The Woy sports agent story will be an inside view of a curious development in sports.

\$8 MILLION MINUS \$178 LEAVES TPD BROKE?

The Tournament Players Division of the Professional Golfers' Assn. plays for more than \$8 million prize money annually.

Most of the prize money is due to the sponsorship of charitable and welfare organizations. They supply free labor to put on the tournaments, give the tax-exempt status that gets strictly commercial or actors' publicity sponsorship. The hospitals, charities and other welfare operations usually get less than the professionals do out of the tournament monies.

Despite being the primary beneficiary of campaigns of generosity, the tournament players—all of them—contributed only \$178 to pro golf's own charity, welfare and educational campaign—National Golf Day—last year.

There is no possible excuse for that shamefully tight performance.

Golf long has had the admirably proud boast "Golfers Give." The

policy, unique in sports, is "If you can't afford to give to the less lucky, you can't afford to play golf, so get the hell out and you won't be missed."

Golf is generous.

But intelligent generosity toward National Golf Day has been dropping lately. There are no reasons for the slump, only excuses of PGA members and their amateur friends.

Tournament pros aren't as cheap as the \$178 indicates. Somehow they got the idea that paying the \$1 entry fee to National Golf Day would glorify them as the Last of the Big Spenders. Many of them could go \$500 tax exempt for pro golf's own charity, welfare and educational fund.

This year, I believe, is the first since the end of World War II when the annual tournament prize money didn't increase over the previous year.

It could be that the bloom is off the public relations rose, because the players aren't the warm, colorful characters that used to adorn pro golf in its growing years.

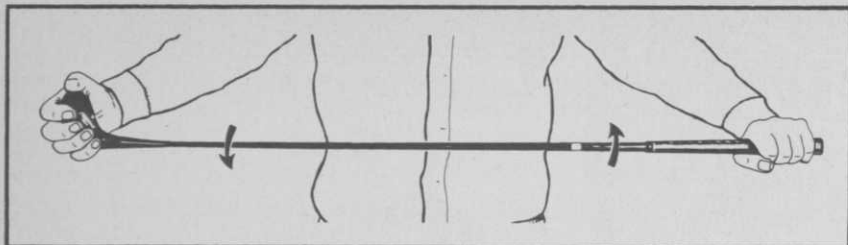
"One hundred seventy-eight dollars for the whole TPD?" Hagen and Armour used to leave more for waiters and caddies when a dollar was a dollar.

WHERE ARE THE SLOPPY GOLFERS?

At every national convention of the Golf Course Superintendents Assn. of America, there are private and frank discussions about who the worst slob is on golf courses. Notwithstanding the convenience of waste baskets at almost every tee at a decently maintained course, there are papers, bottles, cigarette packages, gum wrappers, ball containers, cigarette and cigar butts scattered on greens, tees and fairways; footprints in bunkers, unrepaired ball dents, paper cups, unreplaced divots and other indications of slovenly character.

In recent years, an increasing number of superintendents declare that

continued on page 18



NOW... FANSTEEL TAKES GRAPHITE ONE STEP FURTHER WITH ITS TORQUE-FREE, TIP-FIRM SHAFT

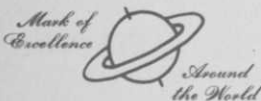
Don't let them tell you otherwise. Most carbon graphite shafts twist excessively at impact. But not Fansteel's new shaft. Static torque loading tests show its torque is at an absolute minimum. Even in the **A** and **R** shafts.

Fansteel's shaft has less vibration and greater recovery, allowing the clubface to remain square to the ball. The shaft tapering is consistent. And the tip firm. You get a solid feeling at contact. Not buggy whip squish.

Fansteel is a leading producer of space age metals. And the nation's largest maker of investment cast golf clubs. It has worked with carbon graphite for many years for various industries. Fansteel's torque-free, tip-firm graphite golf shaft has been in development for two years. Today, it's perfected and ready for your customers.

Try a simple torque test with any graphite shaft. Twist each end in opposite directions. The results will tell you a lot. A club that twists at impact will magnify swing errors. We're pleased to be appointed a Fansteel distributor.

Our salesman will be calling on you soon. For more information, write or phone

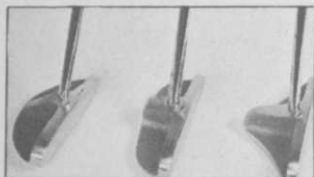


KELLER GOLF CLUBS, Inc.

1821 SUNKIST CIRCLE • OXNARD, CALIFORNIA 93030
(805) 487-4245

Circle No. 176 on Reader Service Card

PRO CIRCLE
PUTTING MACHINES
MEAN PROFITS FOR YOU
FULL 50% MARKUP (PREPAID)
PRO DESIGNED WITH PERFECT
BALANCE AND PERFECT PENDULUM MOTION
MEANS STRAIGHTER PUTTS



WRITE OR CALL FOR CATALOGUE...

PRO CIRCLE GOLF COMPANY
68 NORTH ROUTE 12
FOX LAKE, ILLINOIS 60020
(312) 587-8857

Circle No. 170 on Reader Service Card

WE'VE BEEN QUIET LONG ENOUGH!!

PORT-A-CART

Revolutionary *Collapsible*
MINI-Weight golf/utility vehicle
TURF PROOF - SUPER ECONOMY !!
Port-a-Cart Inc.
34066 Groesbeck, Fraser MI 48026
Circle No. 183 on Reader Service Card



GRAFFIS *from page 17*

women golfers are untidier than men at golf courses. Chivalrous superintendents say the rap for women's untidiness on golf courses may be partially explained by a lack of waste containers at women's tees.

About the geographical distribution of slovenly golfers, I have heard at course superintendents' meetings spirited, expert and, of course, anonymous differences of opinion.

The most recent poll I have heard places golfers in the Pacific Northeast as the neatest, then New England golfers. The Southern California and Southeastern United States share last place in the Pig Derby.

A LOT OF TALK

During all the discussion about whether or not the PGA should have its own club in Florida as a winter vacation place and/or a retirement community, I've heard no indication that financial statements of southern Florida private clubs have been carefully studied.

To put it bluntly, without basic training in the existing data, PGA members don't know what they're talking about.

There is considerable variation in these financial statements; all of it educational, even in the mystifying manner with which the accounts are recorded. The PGA must have learned by now about the differences in times and costs of golf course maintenance in Florida. It has been booted out of two places. At one, the course maintenance cost was around \$25,000 a year. At the latter place, annual maintenance of courses and grounds was \$400,000 a year.

In both cases, one thing definite must have been learned, and that is, when PGA members come to their winter club for three months or so and have to share starting times with year-around members, there is going to be the same problem with starting times on busy days that members of the pros' home clubs have during the busy season north.

But a sharp look before the next leap of the PGA at a winter course must be made at financial statements that tell the business story of other clubs near where the PGA plans a winter home. Otherwise, much of the discussion concerning a proposed winter and/or retirement club in Florida is merely talk. □

NATIONAL CASH REGISTERS at near cost prices... at AAA

\$120.45

National Cash Register for your snack bar manually operated \$5.99 ring up Model 126 only \$120.45

A low cost National Electric Adding Machine on drawer register
2 totals - Green Fees & Other - or 2 totals of your choice
Model 981 - \$199.50

For more information phone collect
212-784-7790 212-361-2470

Expertly reconditioned and warranted for parts and labor
AAA CASH REGISTERS COMPANY, INC.
26-09 Jackson Avenue, Long Island City, New York 11101

Kindly see page 62 for other cash register values.



Money saver where spikes are worn



Philadelphia
N282 Carpet
in Jacaranda
Country
Club,
Plantation,
FL.

Our N282 Spikeproof Carpet

You couldn't make a better investment for locker rooms, pro shops, golfers' grilles than this woven Wilton carpet.

- Wears so well, retains its fresh look so long that the cost per year is less than for other carpets, regardless of initial cost. Many club installations almost 15 years old show hardly any wear signs.
- Woven so tightly that dirt and caked mud remain on top for easy removal. Big maintenance savings

over other flooring types.

- Lessens hazards of personal falls, an advantage worth more than dollars.

Fully customized with your emblem, initials or special design. Or select from our extensive library of club designs. All in colors of your choice.

MAIL COUPON FOR FREE CARPET SAMPLE

Philadelphia Carpet Co.
Allegheny Ave. & C St., Philadelphia, PA 19134

Please send free spikeproof carpet sample and brochure listing clubs using it.

Name _____

Title _____ Club _____

Address _____

City, State, Zip _____

PHILADELPHIA
Carpet Company



Division of Shaw Industries, Inc.

Weaving Division: Allegheny Ave. & C St., Philadelphia, PA 19134
(215-425-5830) • Main Offices: Cartersville, GA 30120
Circle No. 140 on Reader Service Card



THE PUBLIC COURSE 'CRUNCH'

84% of the Golfers on 56% of the Courses

The National Golf Foundation has come up with some hard evidence showing the need for additional public golf courses in America. At a time when available facilities are loath to accommodate present golfers, much less the increasing public interest in the sport, NGF presents a survey showing where public course needs are most severe

The need for accelerated growth in the number of public golf courses in America has long been recognized not only by the National Golf Foundation but by a growing number of private investors and forward thinking municipalities.

This need stimulated public and daily fee golf operations to grow at an even greater rate than that of all other course types combined during the past decade. During this period, the total number of golf courses in the United States increased by 63 per cent (from 7,070 in 1962 to 11,374 in 1972), while municipal and daily fee golf operations combined showed an increase of 77 per cent (3,567 in 1962; 6,322 in 1972). But this faster growth rate was insufficient to quench the indicated public demand for more golfing facilities.

In 1962 public golf operations comprised 51 per cent of available courses; in 1972 they advanced only to 56 per cent of the total number of courses available. This means that in 1972, according to NGF estimates, about 84 per cent of the nearly 11 million active golfers in this country were trying to find room to play on 56 per cent of the nation's courses. The widely forecasted population growth, urbanization, more leisure time, increased personal income and greater mobility throughout the country indicate an ever increasing requirement for golf facilities.

NGF says there is a general feeling among golf course operators that some facilities might handle as much as 30 to 40 per cent more play with improved player control, institution of better starting time systems, speedier golf, more extensive promotional efforts and better developed instructional programs for beginners.

It is not within the province of the NGF to initiate private investment in golf facilities. Its role in encouraging the building of more daily fee and municipal courses continues to be one of advising and assisting those who have expressed an interest in a golf course project. The foundation does, however, feel duty-bound to ensure that those responsible for planning government-owned and funded recreational facilities are aware of which areas badly need more public golf courses and of the advantages of including well-designed and operated public golf courses in the over-all plan for public

recreational facilities.

To determine the areas of greatest need, the foundation has formulated a continuing statistical study based on their recommended proportion of 18 holes of public golf per 25,000 people. The population figure for each county in the United States was divided by 25,000 to determine the minimum number of holes for public golf that each county should provide. These figures were then compared to the number of holes needed to meet the 1970 census population requirements. The statistical findings were presented to each NGF development consultant to use as a basis for analyzing his territory in depth and evaluating the problems, needs and potential. This affects the perpetual adjustment of the statistical report (compiled by NGF statistician, Leah Smith) to incorporate variables always created when a "laboratory system" is subjected to practical application.

A few of the many factors the consultants considered are:

1. Is land available? (For example, consider New York City. There is not enough land available within driving distance of the city to provide the number of public golf courses that should ideally be available to eight million people.)
2. Is the land suitable for golf? (Terrain, general climate, availability of water, length of growing season and type of soil, must all be considered.)
3. How many private courses are located in the area? (Are there enough "unattached" golfers available to warrant more public courses?)
4. Does the area have heavy tourist traffic during the golfing season? (Such areas may well need many more public courses than resident population figures might indicate.)
5. What are the local economic facts? (*i.e.*, the price of land, tax rate and growth potential).

Regional Evaluations By NGF Facility Development Consultants

Michael Sheridan, NGF consultant for the New England Region, reports that existing golf (and all other recreational) facilities are overcrowded. Part of the reason says Sheridan, is that many areas in this region relegate recreation to a low priority compared to other public needs. Another reason is that land, albeit generally suited for golf, is very expensive. He urges that

(text continued on page 25; turn to page 22 for map)