Our new Maxfli® clubs combine meticulous old-fashioned hand craftsmanship with modern technology and engineering.

Maxfli Irons are investment cast, for consistency, in 431 stainless steel. Hard enough to resist marking, while retaining “feel.” Blades are slightly offset, with a clean, short hosel that allows us to redistribute weight around the perimeter of the face, enlarging the sweet spot for greater accuracy.

Maxfli Woods are sleek, elegant, with an exclusive two-piece soleplate that puts heavier brass around the perimeter for perfect weighting. The driver and fairway woods are shallow-faced, with perfect roll.

Let your hands discover all that our hands have done. One swing, and you'll know exactly what "feel" is. And perfect balance. Consistency, club to club. A sense of complete control that your hands can translate into distance or finesse. Once you've held our new Maxfli clubs, you'll never be satisfied with ordinary golf clubs again.

Maxfli® Clubs
Sold through Golf Professionals

DUNLOP SPORTS COMPANY, Division of Dunlop Tire & Rubber Corp., Buffalo, N.Y.

For More Details Circle (110) on Reply Card
Greens are naturally one of the biggest concerns of any superintendent, and Luke is no different. He said he keeps the greens mowed at ¼-inch for regular use and 9/64 during the Masters. He does not use a triplex mower, but rather a walking mower for the greens, because he says he gets a better cut. He rings the greens with a triplex, however. He buys new greens mowers every three years, sells the old ones rather than trade them in.

“The greens mowers are really the only piece of equipment that we try to rotate and plan to replace on a steady basis,” he said. “We do have a full-time mechanic, however, and he keeps a card file on the amount of maintenance done on each piece of equipment, and also keeps record of how much is spent on maintenance for all equipment. This way, if we find that we are putting too much money in one particular piece of equipment, then we have better information to provide when we have to explain why we want to replace it.”

Luke fertilizes his greens twice a month with a fertilizer mix based largely on the results of soil samples he does regularly. “If a superintendent does not run soil samples, there is no way he can tell by looking the shape his turf is in,” he said. “This year, for example, our soil is very high in phosphorous, and we are using a low-phosphorous fertilizer. We also keep a record of soil samples over the years, and this has proved helpful.” He spreads his granular fertilizer on the greens in two directions, dividing the amount to be spread into two portions.

With fungicides, Luke is on a preventative program. In warm weather he sprays his greens about every 10 days. “We vary the kinds of fungicides we use,” he said, “because I think if you stick with the same brand, the ground may become immune.”

He and his crew aerate the greens three times during the summer when the course is closed. They also verticut the greens about six or seven times during the summer. When they aerate, they use as large a tine as possible, usually about ⅛ of an inch, but says the reason they can do this is because the course is closed.

For their size, Luke says traps are one of the most expensive areas of the course. His course only has 44 sand traps, and he is experimenting with a motorized trap rake, although many of the traps are still done by hand. He sprays the many trees on the course in a preventative program to stop disease, and does not have to replace too many each year, although they are continuously planting new trees, especially before the Masters. He uses an aquatic weed control about three times a year on the water which comes into play for five holes.

Tees are fertilized as often as the greens at Augusta — every day. As a rule, Luke uses about 12 pounds of nitrogen a year on his tees and greens, and about eight pounds of nitrogen a year on his fairways. He also mows his fairways daily, and fertilizes the fairways monthly. “I know this is not the way most superintendents do it, but this is my theory here,” Luke said. “If we could take our allotment of fertilizer and apply 1/365 of it every day, we would. This would give the best growth and color. But this is of course impractical, so we try to apply it as often as we can, which is monthly in our case.” He aerates the fairways, sweeps and verticuts twice during the summer. Roughs are cut one inch for regular play and ¾ inch during the Masters.

As mentioned before, the big

Luke has been at Augusta five years, three as the head man.
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Results.

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- Controlled precipitation rate aids growth, maintains healthy turf, improves your course.
- Shorter irrigation time allows earlier and later play.
- Cuts water waste by at least 30%.
- Eliminates need for night crew, cuts labor costs.
- TORO valve-in-head (single head control) compensates for terrain difference, preventing line drainage, puddling, and wet and dry spots.
- TORO Vari-time central controller puts irrigation at superintendent's fingertips.
- Easy installation means minimum turf disruption, no downtime or interruption of play.
- You can convert greens and tees or greens first, then fairways, paying as you go.

If you're considering a TORO conversion, you may already be half-way there... considering that a TORO automatic system can probably use most of your existing pipe. Find out how to go all the way to TORO results.

Write today for a complete conversion brochure:
TORO Irrigation Division, Dept. G-575, P.O. Box 489, Riverside, CA 92502.

Used at the Augusta National Golf Club — Home of the Masters...making your great outdoors even better.
LET'S TALK BASICS

by RALPH MALTBY*

Faced with a rapidly changing business, keen competition from “downtown” stores and the marching technology of his industry, the golf professional sometimes feels confused and wants to know what that does or this does or is it really all “baloney.”

The pro is part of a confused recessionary economy that not only is concerned with Eurodollars and Pedrodollars, but with golfodollars. Sure, golfers will keep playing the game and continue to bludgeon, misplace and drown that little round “bread and butter” item, but will they buy the “steak and champagne” merchandise: clothing, clubs, shoes and bags.

This brings us to the question of what can the golf professional do to help himself through the tough times and even more importantly, benefit himself and his golfers all of the time. One answer could be to get into the club repair business. Many pros feel that club repair takes too much time and effort for the money involved. Nothing could be farther from the truth. Careful planning is all that is necessary to adapt club repair profitably to your particular business operation.

There are six basic reasons why a club professional should get into the repair business:

1. A golf pro who has practical club repair and alteration knowledge adds an extra dimension to his club fitting ability because he has a much better understanding of golf club mechanics and consequently can evaluate the golfer’s needs with more expertise.

2. A golf pro is located where the game is played and also where the clubs are damaged or worn out. This makes him the most logical person to go to when a club needs repair. Thus, an instant market.

3. By doing club repair, the golf pro can keep better track of his members’ equipment which could

Some of the simplest repairs take only minutes. Above, the whipping of a wood head can be done quickly with either braided nylon or monofilament type. To the left, the process is completed, as the end of the whipping thread is pulled taut and the end is cut flush by a razor.

* Ralph Matlby is the author of a new book on the repair business, Golf Club Design, Fitting, Alteration & Repair. Matlby is currently vice president of marketing for Faultless. He previously owned his own repair and custom club shop.
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You get a well-manicured turf everytime, everywhere with the Hahn Flex-A-Matic™ 140. You also get a big cutting width of 11'8"... and a unit that can turn in a 45" radius. The Flex-A-Matic can dart in and out between trees like a riding mower... and it's powerful enough to cut on steep slopes.

Plus the Flex-A-Matic 140 features swing up and swing away reel housings... cable driven reels... independent reel speed... and superb visibility of all cutting reels.

Test ride the Flex-A-Matic 140 at your nearby Hahn distributor.
Club Repair

provide him with timely information to sell the golfer newer, better or more properly fit clubs.

4. The golf market is huge. Add to this a steady growth rate and divide by the total current U.S. repair facilities and you have an answer that says "there's room for a lot more good ones."

Look at these U.S. statistics:
* 12 1/2 million golfers
* 220 million rounds of golf played annually
* 10,500 golf courses with pro shops
* 12,000 golf equipment retail outlets
* Estimated 650 repair facilities
* 43 golf equipment manufacturers producing approximately 14 million individual golf clubs per year

5. The golf pro's competition comes from manufacturers who have always been involved in repairing golf clubs of their own manufacture. The main complaint from golf professionals concerning the manufacturers' repairing clubs is the amount of time it takes to ship the clubs in, have them repaired and returned. This whole process can take from four to 12 weeks. If a member's club breaks down in the middle of the golfing season, the owner may not have use of it again until there is snow on the ground. The customer or member is usually dissatisfied with the pro who sent them to the factory, and the pro is not happy with the manufacturer's service. In all fairness to the manufacturers, they probably want to encourage the golf professional or anybody else to enter more strongly into the repair business and remove this burden from them. This would allow manufacturers to concentrate more heavily on the fast growing custom golf club segment of the business. Most manufacturers willingly supply their exclusive components at a fair price for repair of their golf clubs.

6. Every golf professional is concerned about cash flow at certain times of the year, whether he is in a northern climate or a year round golfing climate. Winterizing, general repair, and off season work can provide those extra dollars to smooth out a normally cyclical cash flow situation.

There are other reasons but these six should give you some insight into the advantages club repair can offer the golf pro.

Should you now decide to get a little more serious about the golf
It took a leading manufacturer of nuclear reactors to make the graphite golf shaft really work.

When Babcock & Wilcox set out to perfect the graphite golf shaft, they began with the sound engineering that made them a leading manufacturer of nuclear reactors.

The result: DynaTorque, the first graphite shaft that translates performance theory — easier swing, better control, longer drives — into fairway reality.

Qualitube manufacturing is the secret behind DynaTorque. DynaTorque quality begins with 100% graphite fibers of the highest grade. Through B&W's special Qualitube* manufacturing, precision cut plies are carefully oriented side-by-side and bi-directionally wrapped. Then heat and intense pressure mold cure the bonding resin.

This ply wrapping and mold curing produce an especially uniform, dense and void-free structure for added strength.

DynaTorque means predictable high performance.

DynaTorque's unique step configuration, the traditional look in quality steel shafts, adds control without increasing weight. And higher twist resistance than any other graphite shaft makes sure the club meets the ball squarely at impact.

A choice of five DynaTorque flexes, comparable to standard steel flexes, are held to within 4% of their ratings to make fitting easier and produce a lighter club for the same swing weight. And consistent torsional properties are backed by exacting quality control and B&W's high performance standards.

Get the complete story on DynaTorque graphite golf shafts.

For more information on the new era in graphite shafts, call or write Fred Carstens, Marketing Manager, Babcock & Wilcox, Advanced Composites Department, P.O. Box 419, Alliance, Ohio 44601. (216) 823-0500.

*Babcock & Wilcox

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repair business and want to know more about it contact the Professional Golfers Association and find out what the Education Department has scheduled for PGA members. Under the leadership of its Director, Gary Wiren and others in the Educational Department, such as Joe O’Brien, the PGA offers its members various types and levels of business schools and also in-depth workshops. Repair, fitting, design, and construction of clubs are only some of the subjects discussed.

**GETTING STARTED IN THE REPAIR BUSINESS**

Pros often ask, “what equipment should I buy to get started?” This is difficult to answer without asking questions such as:

* How large an area is available for a shop?
* Do you want to do all repairs and alterations or just do a few?
* How much money can you spend?

So as to not avoid the subject entirely, below is a list of equipment that will at least give you a good start doing the basic repairs:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Approx. Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propane Torch</td>
<td>$8.00</td>
</tr>
<tr>
<td>Vise (at least 4” jaws) “Official” swingweight scale</td>
<td>15.00</td>
</tr>
<tr>
<td>Phillips Screwdrivers 2 sizes</td>
<td>3.00</td>
</tr>
<tr>
<td>Regular Slotted Screw-drivers 2 sizes</td>
<td>3.00</td>
</tr>
<tr>
<td>Bulge &amp; Roll Measuring Gauge (Kenneth Smith)</td>
<td>3.00</td>
</tr>
<tr>
<td>Machinists Protractor for Measuring Lofts</td>
<td>5.00</td>
</tr>
<tr>
<td>Padded Vise Pads (Kenneth Smith)</td>
<td>1.50</td>
</tr>
<tr>
<td>Hammer</td>
<td>5.00</td>
</tr>
<tr>
<td>Assorted Pin Punches (1/8”, 1/16”, 3/16”)</td>
<td>4.00</td>
</tr>
<tr>
<td>Shaft Butt Gauge (Eaton Corp.)</td>
<td>FREE</td>
</tr>
<tr>
<td>Shaft Vise (Kenneth Smith, Lamkin, Magco, or Day Products)</td>
<td></td>
</tr>
<tr>
<td>Assorted Files</td>
<td>7.00</td>
</tr>
<tr>
<td>Awl</td>
<td>1.50</td>
</tr>
<tr>
<td>Sanding Cone Mounted on 1/3 HP Motor (Kenneth Smith)</td>
<td>7.00</td>
</tr>
<tr>
<td>Electric Drill and Bits</td>
<td>20.00</td>
</tr>
<tr>
<td>Buffing Wheel (will mount on 1/3 HP Motor above)</td>
<td>3.00</td>
</tr>
<tr>
<td>1/2” Chisel</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Basic materials:
- Epoxy (for shafts, inserts, etc.)
- Polyurethane Finish, dip or spray (Kristal Kraft)
- Sandpaper (assorted)
- Toothpicks (used to tighten loose screws)
- Napapha (for putting on grips)
- Double-sided Tape (for putting on grips)
- Assorted Brass Flathead Phillips Screws
- Wooden or Metal Shaft Extensions
- Buffing Compounds
- Whipping Thread (Nylon)
- Touch-up Quantity of Black, Walnut & Mahogany Stain
- Wood Filler
- Various Manufacturers’ Decals (usually free, just write)

It seems that many pros find it difficult to locate the basic repair components and special equipment for repairing, checking or altering clubs.

**THE “HOW TO” OF MINOR CLUB REPAIRS AND ALTERATIONS**

When a club comes in for repair you should first inspect it for other problems. It’ll amaze you how many times you will find other repairs which should be made to prevent a serious problem later or will correct a hidden problem now. To properly inspect a club you should do the following:

To check for a loose head, grasp the grip end of the club in one hand and the head in the other. Gently twist back and forth in opposite directions and listen for a creaking sound or you may actually feel the head move back and forth. This test will also tell you if the grip is loose if it turns in your hand. Next, check for rattles in the shaft by putting the head end down, then up and repeat. Rattle within the head itself can be detected by holding the grip end of the club in the left hand very loosely and gently dropping the head end on...
REWIPPING WOOD CLUBS

Remove the old whipping and remove any unevenness or varnish buildup from the hosel with sandpaper if necessary.

The new whipping should be sealed against the hosel. Use either regular varnish or some clear wood head finish and apply a light coat on top of the hosel before applying a new whipping.

You are now ready to apply the whipping. The larger .022 diameter size in black is generally recommended. Either the braided nylon or monofilament type. Lay approximately one half inch of whipping on the top portion of the hosel and begin winding over it. Keep winding down the hosel being careful to butt each successive winding tightly to the one before it but not to allow it to overlap. When you have wound the whipping down to the desired length cut it off about 12 to 15 inches longer. Unwind or back off the whipping five or six turns, take the end off it and lay it on the back of the neck facing up the shaft and loop the remaining portion of the whipping five or six times over it and the head.

Lastly, pull the end of the whipping thread taut and cut the end flush with a razor or sharp knife.

REFITTING A LOOSE OR OPEN SOLEPLATE

The wood head must be securely fastened in a vise before attempting to remove a soleplate. Use vise pads to keep from damaging the head.

With the head secured, clean out the screw slots and remove the soleplate screws. Do not force the screws if they do not come out easily as this will either damage the slot or break the screws. Most manufacturers use epoxy to bond the screws and soleplates to the head. To remove epoxied screws, use a propane torch with the flame turned very low. Direct the flame to each screw head and heat for a few seconds. Be careful to angle the flame into the center of the metal soleplate so as not to burn the wood. Wait a minute or so before attempting to turn the screws as it takes a few minutes for the heat to soften the epoxy.

Now, remove all the screws and remember to keep them in order so that they can be reinstalled into the same holes. DO NOT USE YOUR FINGERS TO TURN SCREWS WHEN THEY BECOME LOOSE BECAUSE SOLEPLATE SCREWS HAVE EXTREMELY SHARP EDGES WHICH WILL CUT LIKE A RAZOR.

The soleplate should lift off easily, but sometimes it is necessary to insert a knife blade between the soleplate and the insert, prying gently. In extreme cases, more heat can be applied to the soleplate to help release the epoxy bond.

Next scrape off all grass, dirt and loose epoxy from under the soleplate and also from the soleplate cavity.

To replace the soleplate, first mix the epoxy, then coat both the soleplate and the wood with epoxy and place the soleplate in position. Next, coat each screw and firmly seat in place.

If the screw threads in the wood are stripped and the screw will not tighten properly, try this little trick: Remove the screw and push wooden toothpicks into the hole and break them off just below the top of the hole. Generally, four to six pieces of toothpick will do the job. Now, coat the screw with epoxy again and reinstall it in the hole.

Again, remember to put the screws in their original hole so they will seat properly. If a new screw is used because the old one was damaged, you will need to file the screw head flush with the soleplate.

Finally, the soleplate and surrounding area will need cleaning up and the wood will need to be resealed. First, either lightly hand-sand or machine-sand the entire bottom of the wood. This blends everything back together, removes any burn marks, burrs and scratches and makes the bottom smooth. Touch-up the wood area with a matching stain if necessary and then either brush, spray or wipe some clear golf club finish over the entire bottom to seal and protect it from abrasion and moisture.