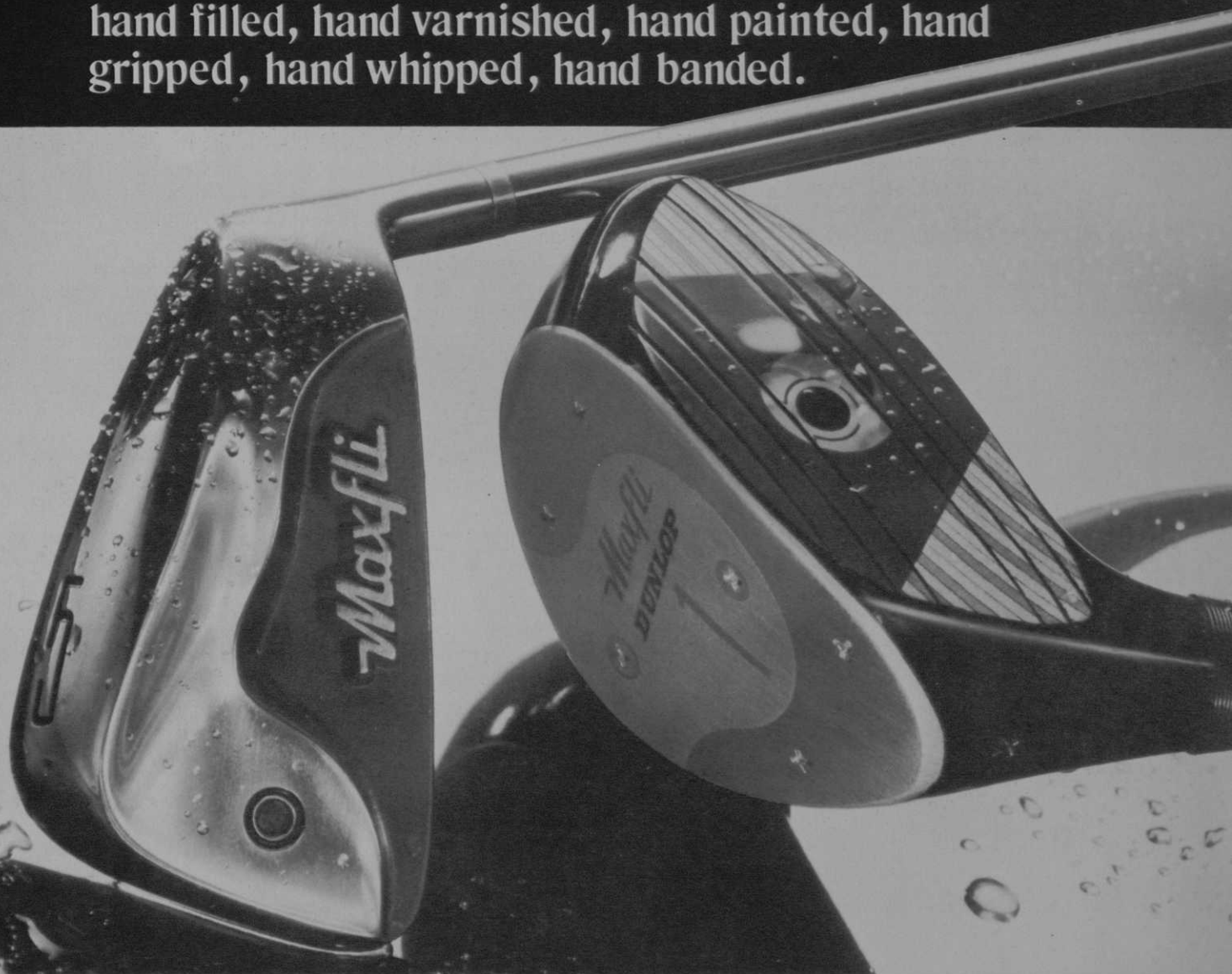


Hand poured, hand cast, hand polished, hand masked, hand blasted, hand buffed. Hand turned, hand sawed, hand drilled, hand reamed, hand sanded, hand routed, hand faced, hand soled, hand scored. Hand shafted, hand trimmed, hand balanced, hand cleaned, hand streaked, hand weighted, hand stained, hand filled, hand varnished, hand painted, hand gripped, hand whipped, hand banded.



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.

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 **Maxfli® Clubs**
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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 $\frac{1}{4}$ -inch for regular use and $\frac{9}{64}$ 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.

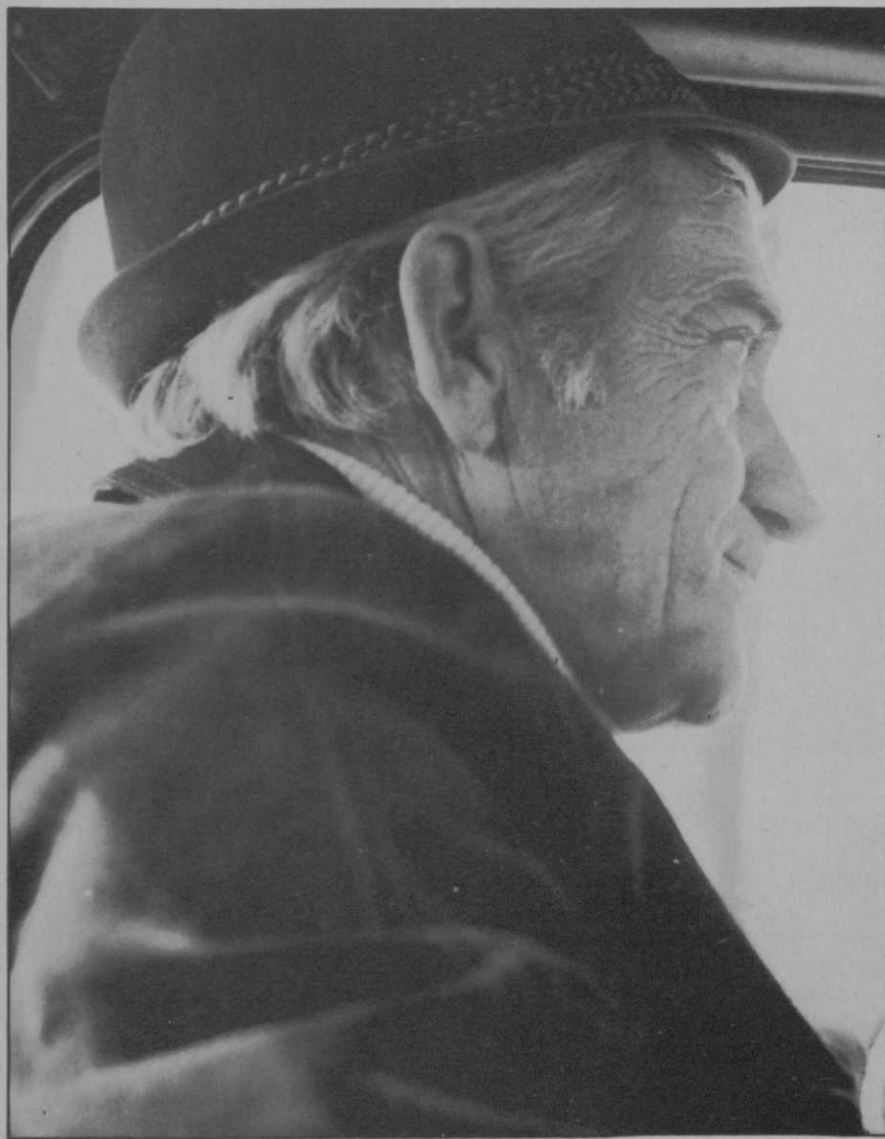
With fungicides, Luke is on a preventative program. In warm weather he sprays his greens about every 10 days. "We vary the kinds of fungicides we use," he said, "because I think if you stick with the same brand, the ground may become immune."

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 $\frac{5}{8}$ 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 $\frac{1}{365}$ 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. Rroughs are cut one inch for regular play and $\frac{3}{4}$ inch during the Masters.

As mentioned before, the big
to page 56




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

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Club Repair

LET'S TALK BASICS

by RALPH MALTBY*

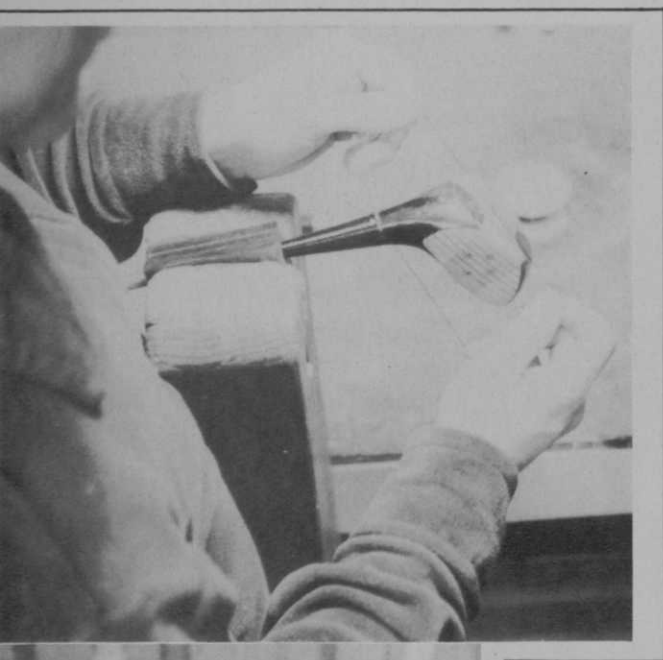
Faced with a rapidly changing business, keen competition from "downtown" stores and the marching technology of his industry, the golf professional sometimes feels confused and wants to know what that does or this does or is it really all "baloney."

The pro is part of a confused recessionary economy that not only is concerned with Eurodollars and Pedrodollars, but with golfdollars. 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 Maltby is the author of a new book on the repair business, *Golf Club Design, Fitting, Alteration & Repair*. Maltby is currently vice president of marketing for Faultless. He previously owned his own repair and custom club shop.



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Club Repair Continued

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."

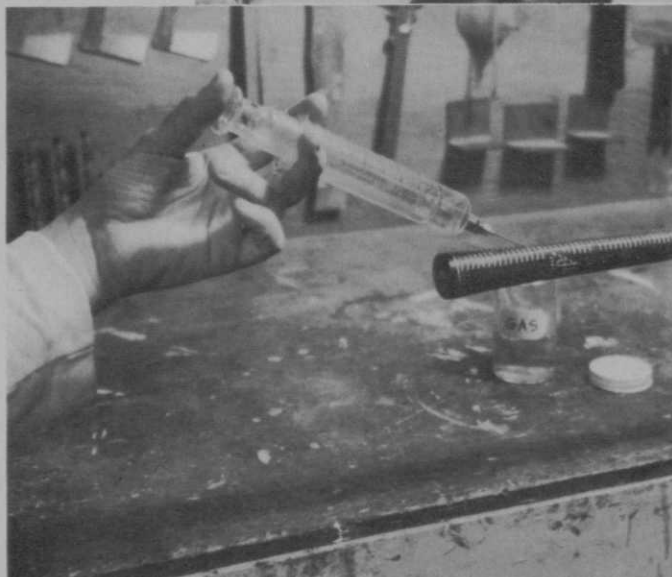
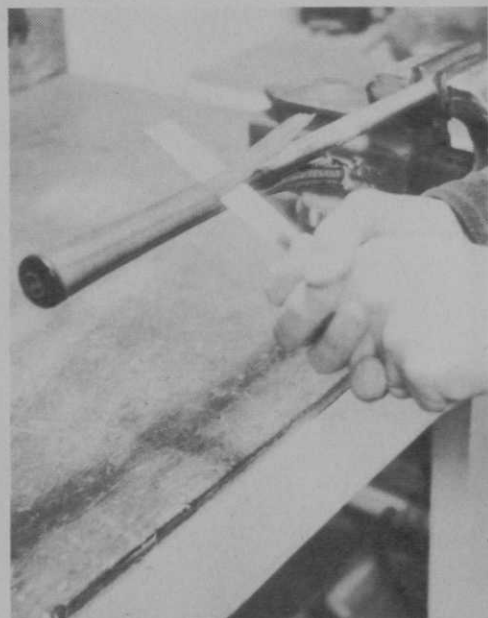
Look at these U.S. statistics:

- * 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.

Installing new grips is another regular service of most repair shops. The first step, top, is to remove the old grip with a sharp knife. After tightening the piece into a vise. After the new grip is placed, a solvent is injected. At bottom, the grip collar is attached.



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

to page 18

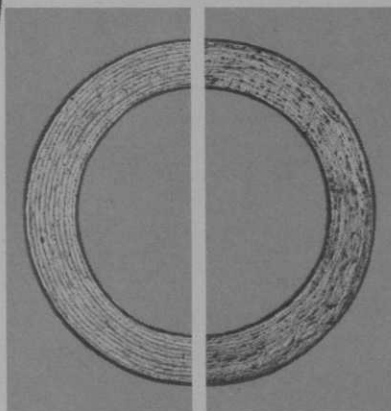
It took a leading manufacturer of nuclear reactors to make the graphite golf shaft really work.

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.



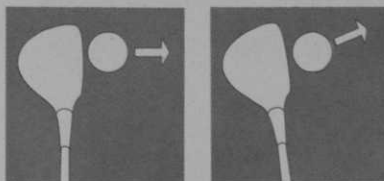
DynaTorque

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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



DynaTorque

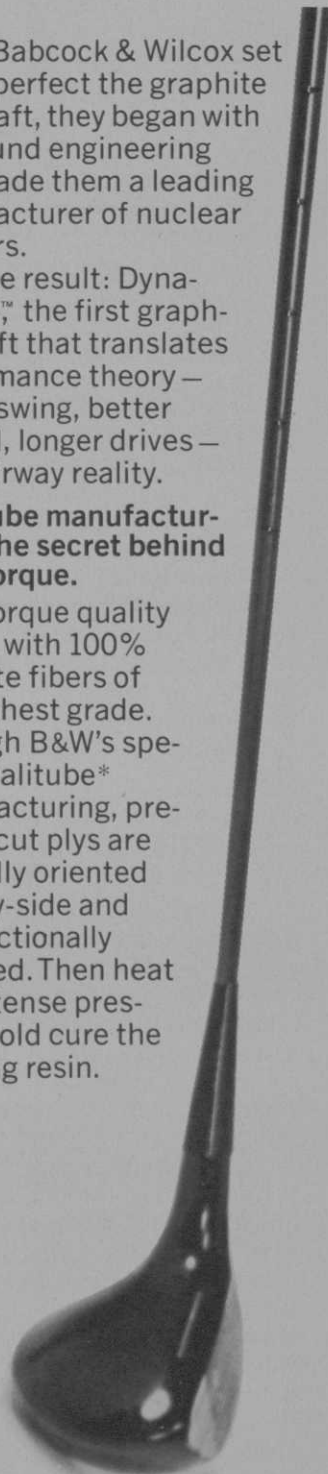
Conventional

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.



*Patent pending

Babcock & Wilcox

Club Repair Continued

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?

- * How much business do you intend to go after?
- * Will you eventually expand into custom club making?

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:

	Approx. Cost
Propane Torch	\$ 8.00
Vise (at least 4" jaws)	15.00
"Official" swingweight scale	30.00
Phillips Screwdrivers 2 sizes	3.00
Regular Slotted Screwdrivers 2 sizes	3.00
Bulge & Roll Measuring Gauge (Kenneth Smith)	3.00
Machinists Protractor for Measuring Lofts	5.00
Padded Vise Pads (Kenneth Smith)	1.50
Hammer	5.00
Assorted Pin Punches (1/8", 1/16", 3/16")	4.00
Shaft Butt Gauge (Eaton Corp.)	FREE
Shaft Vise (Kenneth Smith,	

Lamkin, Magco, or Day Products)	2.50
Assorted Files	7.00
Awl	1.50
Sanding Cone Mounted on 1/3 HP Motor (Kenneth Smith)	7.00
Electric Drill and Bits	20.00
Buffing Wheel (will mount on 1/3 HP Motor above)	3.00
1/2" Chisel	2.00

Basic materials:
Epoxy (for shafts, inserts, etc.)
Polyurethane Finish, dip or
spray (Kristal Kraft)
Sandpaper (assorted)
Toothpicks (used to tighten
loose screws)
Napatha (for putting on grips)
Double-sided Tape (for putting
on grips)
Assorted Brass Flathead Phillips
Screws
Wooden or Metal Shaft Exten-
sions
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

NEW GRIP-GARD SLEEVE



Jackson Bradley,
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Corporation Elkins
Lake, Texas is widely
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of golf clubs and pro-
cedures for their re-
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Ferrule for golf club grips

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PUTS A "FACTORY LOOK" INSTANTLY ON A REPLACED GRIP

Anyone can install in seconds—no skill or experience required. The **only** ferrule that stretches **intact** over the large end of a bare shaft and returns to shape.

Made of good-looking, thoroughly baked black vinyl, the Grip-Gard Sleeve* removes forever the problem of wrinkled tapes and jagged ends when replacing golf club grips. Its taper is specially designed to fit the shaft and grip of any iron or wood. No glue required.

Inexpensive to buy, easy to install—builds customer good will. Grip-Gard Sleeves have been used on thousands of repaired golf club grips by some of the largest golf repair shops in the country.

*Patent Pending



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a wooden or tile floor or rug from a height of five to six inches. A tinny, vibrating sound will be heard if there is something loose. The remaining checks are visual. Look for loose inserts; loose sole-plates; frayed or broken whippings; and also for chipped or open finishes which could allow moisture to enter during wet playing conditions or allow drying out during arid playing conditions or winter storage.

REWHIPPING 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 of the whipping thread 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 re-install 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.

to page 38

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