

PLAYING HICKORY GOLF

**The Complete Guide
To Wood Shafted Golf**

PLAYING HICKORY GOLF

**The Complete Guide
To Wood Shafted Golf**

By
Randy Jensen

Foreword by: Ralph Livingston III

Foreword by: Ron Lyons

Introduction by: Peter Georgiady

**Printed by: Airlie Hall Press
Kernersville, North Carolina**

Playing Hickory Golf

by

Kandy Jensen

Presentation Copy

no. — of 33

First Edition

Copyright March, 2008

Randy Jensen

All Rights Reserved

No part of this book may be reproduced without
written permission of the author and publisher.

ISBN 1-886752-23-0

Graphic Design & Desktop Publishing by:
Freestyle Graphics
11932 Arbor St., Suite 102, Omaha, NE 68144

Book Cover Design by: Stephanie Albright

Manufactured in the United States of America

Produced by:
Battleground Printing & Publishing Services

Published and distributed by:
Airlie Hall Press
PO Box 981
Kernersville, NC 27285

airliehall@earthlink.net

Dedication

This book is dedicated to all those pioneering hickory golfers of our modern era who with their keen appreciation of the history and traditions of this great game have made hickory golf the wonderful experience that it is today.



Randy Jensen

About The Author

Randy Jensen has been described as “the Tiger Woods of hickory golf”. He has won more contemporary wood shaft golf tournaments than any other golfer. His list of accomplishments includes over 60 wood shaft tournament titles, among them:

- Seven-time National Hickory Champion
- Seven-time Golf Collectors Society World Hickory Champion
- 17-time Heart of America Hickory Champion
- Three-time Southern Hickory Four Ball Champion (with Rob Ahlschwede)
- Two-time Scottish Hickory Champion, Scratch Division
- 2004 Canadian Hickory Champion
- 2006 Orvis Cup Professional Champion (the first all wood shaft tournament paying prize money since the 1920s!)
- World Record Holder with 409 holes of hickory golf played in one day

Randy owns Classic Golf in Omaha, Nebraska. This golf shop specializes in the restoration, repair, and sales of collectible and playable wood shaft golf equipment. He is a founding member of the Society of Hickory Golfers and is also a member of the Golf Collectors Society and the British Golf Collectors Society.

Randy is available for golf lessons, lectures, seminars, and golf outings. He can be reached by phone at 800-728-0566 or 402-554-0202. Address inquiries to Randy Jensen c/o Classic Golf, 4617 Dodge St., Omaha, NE 68132. The eBay store address is “classicgolf4” and Randy’s e-mail address is classicgolf@hotmail.com.

Acknowledgements

I would like to thank Frank Hardison who helped gather the early GCS information on which this book is based and Bob Labbance who researched early GCS literature as well. Ralph Livingston III has been an inspiration for most modern hickory golfers and it is his energy and enthusiasm that is, in a large part, responsible for making hickory golf what it is today. I would also like to thank Ralph for the many photos he provided for the book, for his foreword, and his many suggestions on content as well. I would like to thank Pete Georgiady not only for his contributions to the making of this book but also for his foresight in putting hickory tournament golf on the map, so to speak. Ron Lyons, Pehr Thermaenius, Johnny Henry, Gary Wiren, and John Sherwood have all contributed bits of history and information that has been recorded in this book. I would also like to thank the many proof readers who have helped to make this effort as error free as possible including Joe Manley, Colin Huerter, and Mark Wehring. I would like to thank Stephanie Albright for her additional photos and her excellent cover layout. I would like to thank Frank Boumphrey and Rona Boumphrey for their very creative layout work. Many thanks to all those who provided additional photos including Pete League, Robb Howard, Matt Seem, Dave McNair, Mark Romesser, James Kaiser, and Helen Searle. Special thanks to Ron Jensen for his outstanding calligraphy.

CONTENTS

Foreword.....	xiii
Introduction	xvii
Chapter 1 – A Short History of Golf and Modern Hickory Golf.....	1
Chapter 2 – Choosing Your Wood Shaft Golf Clubs	13
Chapter 3 – Repairing Your Wood Shaft Clubs.....	35
Chapter 4 – Custom Fitting Your Wood Shaft Golf Set.....	61
Chapter 5 – The Hickory Golf Swing	75
Chapter 6 – Playing The Woods And Irons.....	111
Chapter 7 – Short Game and Sand Shots	137
Chapter 8 – Putting.....	147
Chapter 9 – The Mental Game.....	157
Chapter 10 – Questions And Answers About Hickory Golf.....	165
Chapter 11 – Some Of My Favorite Hickory Golf Experiences	173
Chapter 12 – Hickory Golf Websites And Organizations.....	249
Appendices	
Best Places To Play Hickory Golf	259
Best Books On Hickory Golf	260
Modern Hickory Hole-In-Ones	262
Top Sub-Par Hickory Tournament Rounds	263
Modern Hickory Golf Championship Results	264
Vintage Championship Results	272



Ralph S. Livingston III

FOREWORD

The creation of “Playing Hickory Golf” by Randy Jensen is a great new resource that will finally bring much needed information to people seeking info about our growing hobby of hickory golf. Personally, I couldn’t think of anyone better to write such a book than a great hickory player and my good friend, Randy Jensen. Randy’s book dispels much of the misinformation that exists about hickory golf and presents an outline for the average golfer who would like to get involved playing with vintage wood shaft golf clubs.

When I first started playing hickory golf, I wasn’t aware that anyone else was even playing with them. Hickory golf was still in its infancy. The first event that I played in, the organizers were essentially keeping score by counting the combined number of clubs broken by the participants! These early organized events were mostly played in a scramble format, but they were great fun and created the opportunity for players with a common interest to convene.

Randy and I first crossed paths during a long driving competition that took place during my first Golf Collectors Society annual meeting in Ypsilanti, Michigan in 1994. We both were in the long drive finals won by Micah Bosman with Randy finishing second and I, third with a measly 274 yarder. Later, we would get to know each other in depth when we both arrived early to play practice rounds at a hickory golf event. I re-introduced myself, and we went out and played. During our round we talked about our respective interests, foremost of which was seeing the game shift from “Hackers” to “Hickory Championships”. A partnership was formed. “The Player” and “The Equipment Geek”, a perfect match of skills for the time. As a result of that meeting, Randy became one of the primary people that pushed me to create www.hickorygolf.com, the first website to deal exclusively with playing golf with vintage hickory shaft golf clubs.

At that time, the vast majority of hickory golfers were playing once or twice a year with unrestored hickory shaft clubs. The heads were loose, the shafts were warped, and the grips were slick. Little attention was paid to the playable condition of the clubs, the various makers of those clubs, or to the respective quality of the clubs. I like to think that Randy and I had a big hand in changing those perceptions with our fully restored sets designed to be played on a daily basis. From my golf equipment

background and a great bit of luck, I came to realize that the Tom Stewart irons were consistently the best playing irons produced during the wood shaft era. In a very short time I had a basement full of his finest examples. Randy acquired a full play set of Stewart irons as well and today the Stewart made irons have become the most sought after among the elite hickory golfers of the world.

Today there are so many hickory golf events you would not be able to participate in all of them! Competition has become much livelier as more players give hickory golf a try. With today's overload of high-tech golf equipment, it is nice to see people appreciate the shot-making qualities inherent in hickory golf. There is a "Golf in the Kingdom" element that is part of the fascination and enjoyment of playing with these vintage clubs. After all these years of sitting unused, the clubs actually seem happy to be out upon the fields of play they once knew. A new lease on life. I have experienced this sensation most while playing the great courses of Scotland and the classic courses in the US, all places the clubs might have seen 80 plus years ago when they were shiny and new in someone else's bag. I have enjoyed bonding with these vintage clubs in a way never experienced while playing with modern equipment. There is no better feeling in golf than finding that special hickory club that seems to be a pure extension and expression of your own golf swing. I still love handling newly found clubs and finding one that might give me "that" feeling, a perfect previsualization of the shot that when accomplished feels like *deja vu*.

It is wonderful to see many great old courses in the UK and the USA are rediscovering their history by holding hickory events for their members, be it for fun or to celebrate the club's centenary. The increase in interest can also be shown by the three movies that have come out in recent years dealing with hickory era golf, "The Greatest Game Ever Played", "The Legend of Bagger Vance", and "Stroke of Genius". Today we see discussions about hickory play on golf forums alongside talk of the latest new golf ball or high-tech driver. There is also research being done to understand the effects that the changes in the ball, the architecture, and the clubs all have on the game, and how they are interrelated. Work on providing realistic golf balls is progressing forward and may be one of the most important accomplishments for historically accurate play.

All of this interest bodes well for the future as increasing numbers of adventurous golfers discover the pleasures and history of the game by "Playing Hickory Golf".

Thank you Randy for the great times we have had during the last 14 years.

Ralph S. Livingston III

FOREWORD

At 9:30 a.m. Aug. 18, 2007 my cell phone rings. “Hi Ron, its Randy. Don’t bother picking me up at the airport today as I misplaced my passport and will have to drive up.” I wish him luck, hang up the phone and check Yahoo Maps. OMAHA, NEBRASKA, USA to EDMONTON, ALBERTA, CANADA = 2240 kilometers—ouch!

At 1:30 p.m. Aug. 19th it rings again. “Hi Ron, its Bob from the pro shop. Randy asked me to give you a call and let you know he made it.” I’m shocked and ask him to put Randy on. He replies, “I’ll send someone out to get him as he’s out practicing on the putting green.”

There are no paydays in competitive hickory golf. In 2006 the 3 top pro tours competed in nearly 120 events for \$25 million in prize money. At any event you can check the nearest airport’s tarmac and watch it glisten with private and chartered jets. There are chauffeurs at the ready, world-class accommodations and fine dining. Randy’s book brings you back to the days when the top players in the world would scratch together their last few dollars in order to make it to the next tournament and hope to make enough that week to keep playing. It’s Randy’s love of the game and the challenge of conquering the golf course with technique rather than technology that keeps him motivated.

I think back to an interview Larry King did with British talk show host Dick Cavet. Larry was the one being interviewed and Cavet’s final question was: “Larry you’ve interviewed most of the greatest athletes in the world, heads of state, top entertainers and many of the most successful people in the world. What separates them from the masses?” King replied that this question was easy. Many come from menial backgrounds, he said, and lots don’t have the greatest God-given talent but the one thing that they all have is a fierce determination to succeed.

Randy shows up at every tournament with a quiet determination. There is no fist pumping with success or temper tantrums with failure. He is one of the most generous people to play with and after the round he is always willing to help his fellow competitors and share with them his vast knowledge about playing golf with the old sticks.

This book is a great insight into hickory golf and will challenge the reader to seek out a set of the old wooden shafted clubs and join in the fun. As a resource it will sit alongside the many wonderful books produced through a labor of love by like-minded golfers. I look at my reference library of books written by members of the Golf Collectors Society and often quietly thank all those people who have shared their knowledge with the rest of us. There are no millionaire authors made through these efforts but all have worked to promote the history of the game and honor its Legends.

Ron Lyons

INTRODUCTION

Several months after Randy approached me with the makings for this project and giving it due consideration, it struck me that we had arrived at an historic moment of sorts. In fact, we had reached a major golf milestone. It may be small and insignificant to much of the golf world but to golfers who want to enjoy and preserve the heritage of golf, this book is a watershed. Allow me take you along the time line, step by step.

As I began to play golf on the public courses of Milwaukee in the summer of 1958, I used a kit of mismatched clubs my dad had bought for me at either the Goodwill or Salvation Army store. Among the odds and ends was a wood shaft mashie. I was a bit embarrassed to show up to the Lincoln Park course with that in my bag, but I did use it.

At Dundee University, when I was doing post-graduate work in Scotland in 1971, Professor J.J. Robertson had two wood shaft clubs in his quiver-shaped bag on its cranky little trolley. He used them at the Law Society golf outings. The Scots, being of a thrifty nature, and Professor Robertson possessing minor eccentricities, caused me to think little of it. To collectors-and hickory golfers-it is important that the Scots discarded little over the centuries, leaving many old clubs for us to find and use.

When I played my first hickory golf in 1979 at the old spring Dayton GCS meeting, my reaction was typical: "I can't hit those clubs, they'll break!" After the first four or five holes, when none of the clubs showed any signs of disintegration, I started playing with my cruise control turned on-playing my usual suspect game, but having fun and no longer worried about breaking clubs. Immediately afterward I was in the hickory groove, searching for a niblick more to my liking, ready to rewhip and regrip clubs for a more serious assault on the course and assembling a bag and accoutrements to make the full kit. For the next decade we throw-back boys played a couple times a year, usually in conjunction with GCS events.

Fast forward fifteen years. I became acquainted with Ralph Livingston who, shockingly, only played hickory clubs totally forsaking his modern set. Ralph became the poster child for the next generation of hickory golfers: a guy adamant about playing all the time, everywhere with really good quality hickories. With Ralph, there was a following. There were more guys with nice hickory sets who wanted to and were playing hickory golf, not just at GCS meetings but frequently, all over the place.

Next came the real hickory golf events, competitions, not merely outings. The National Hickory Championship was born in 1998. Players who embraced that contest were now involved in procuring a second kit of authentic 19th century equipment. The dichotomy in the sport was created-1890s hickory golf and 1920s hickory golf with different equipment and rules provisions. With the NHC came the advent of the two-day tournament, serious golf for serious hickory golfers. More tournaments fell into line: the Hickory Open, the Mid Pines Open, the C.B. Macdonald Matches, the Southern Hickory Four Ball. Locating top quality playable hickory clubs, restoring and properly using them became an art form, obsession and a passion for many players.

The hickory groundswell was causing golf media to take a second look at the nuts playing with antique equipment. Stories were being written in mainstream golf publications about the more visible events and its high visibility champion, Randy Jensen. Manufacturers like Louisville Golf Company, Tad Moore Golf and Heritage Golf of Scotland began producing replica clubs for a segment of the market that included non-collectors.

Finally, coming full circle from a century past, new golf courses are being built for hickory play-exclusively for hickory play. The foresight of men like Lewis Keller, Sr., at Oakhurst Links, is being recognized. Beyond the adamant guys who play historic golf for a variety of reasons the entertainment value in hickory golf has been discovered.

From the last three decades Randy Jensen has emerged as the tallest flagpole in hickory golf. He has not only enjoyed unprecedented success on the fields of competition but he has made studying and playing golf in the style of our forefathers into his science.

Golf Magazine called Randy the "Hickory Tiger Woods," a moniker used by most of his peers when they refer to the champion. We could also consider him as the 21st century Allan Robertson, the golfer who was asked not to participate in the 1842 Caddies Competition at St. Andrews because his abilities were acknowledged to be so far superior to the others that no one else could have thoughts of winning. But I prefer to place him opposite Willie Park, Jr. whose book *A Game of Golf* made history as the first golf book written by a golf professional, a champion golfer, too. *Playing Hickory Golf* is the watershed I referred to earlier. It is the first book about hickory golf and it is written by its highest profile player. To be sure, there will be other volumes in the future but this is the original.

Modern hickory golf has traveled from the gatherings of a handful of undisciplined nuts with rusty mashies, no rules and even less format to a sport that includes competitions for golfers fastidious about authentic equipment and rules, whose photos appear regularly in golf magazines. Hickory golfers with wood shaft equipment wearing knickerbockers trousers were once curiosities at any golf course. Today we are recognized as being respected purists of the game. With this volume we have literature to recall our roots, educate new practitioners and point the way for future generations of hickory golfers. Thank you, Randy.

Pete Georgiady
Kernersville, NC

PLAYING HICKORY GOLF

**The Complete Guide
To Wood Shafted Golf**



Allan Robertson

Chapter 1

A Short History of Golf and Modern Hickory Golf

So what is “Playing Hickory Golf”? Playing hickory golf is playing golf with vintage, wood shaft golf clubs that were manufactured before 1936. Wood shafts were the way the original game of golf was played. Steel shafts were legalized by the USGA in 1924 and by the R&A in 1929, but did not become the dominant shaft choice until after 1930. After 1935, manufacturers were no longer producing wood shaft golf clubs. Of all the woods used for shafts, hickory became the most popular choice so that by 1920, over 95% of all wood shafts produced were hickory; hence, we are playing hickory golf!

Why would we want to play hickory golf? The answers can be as varied as the many different people who play hickory golf. Some golfers want to experience the game of golf the way that Old Tom Morris, Harry Vardon, Bobby Jones and other great players of that earlier era did. Others enjoy playing golf clubs that their favorite old courses were designed to be played with. Many are attracted by the novelty of playing the game with clubs that can be 80 or more years old. And there are those players who have quit chasing the latest high tech equipment and would prefer something more basic, more satisfying and, ultimately, more rewarding. I enjoy improving my golf swing and the hickory clubs require more exacting ball contact than modern “forgiving” golf clubs, they can tell me more precisely just how good I am swinging. I also like the historical aspects of playing with the same kind of clubs and on the same courses as golfers from 100 years ago did. Another aspect that I appreciate is the shorter length that a hickory driver hits the ball.

Now that may really sound odd—who wants to hit a shorter drive? But today’s equipment in the hands of a good player has shortened many courses to “pitch and putt” layouts; a good player today hits a 300+ yard drive so that golf courses that were championship tests of golf 30 years ago are now too short as the good players hit wedge into most of the par 4s and hit an iron second shot into the par 5s. Wonderful courses that are 6,400 to 6,800 yards long simply do not test very many clubs in the bag of a good player today.

A really good championship test of golf today would be contested at 7,400+ yards in length. With the hickory shafts and persimmon heads of yesteryear, most top hickory players today drive the ball 250-270 yards, just like in the 1920s, IF they hit their driver solidly. And instead of having their mishits carry 300 yards, like we see today, a 3/4”

Playing Hickory Golf

miss off the toe or heel will likely result in a drive of 180-220 yards! Add an extra 80 yards to your approach shot and see how that changes the golf course!

Many feel the ball is to blame for the current state of affairs in today's golf, but the fact is that the ball goes about the same distance today as in the 1920s. How can that be? Most people are not old enough to remember the golf ball rules that were enacted, first in 1921, and then in 1931 and 1932 to curtail golf ball distances. Originally, there were no rules regarding size and weight of golf balls. Early golfers figured that golf ball size would be self-limiting—who wants a ball so big it won't fit easily into the hole or so small that you can't hit it out of the rough? Better players played the smaller, heavier balls.

The distance that a really good golfer hit his driver began to really increase in the 1910s so that a golf ball rule was enacted in 1921 that limited a ball's size to no smaller than 1.62" in diameter and no heavier than 1.62 ounces in weight. The problem was that this had little effect in curtailing driving distances as players were hitting the ball longer than ever in the 1920s!

Bobby Jones, who retired from competitive golf after his famous Grand Slam victories of 1930, played a 1.62" diameter golf ball during his prime in the 1920s. Here is what he had to say about long driving in his 1927 book, "Down the Fairway": "I remember that at the eleventh hole (of a 1924 tournament) Charlie Hall, the famous Birmingham slugger, with whom I was paired, got away a drive of 360 yards and I nearly matched it with one of 340 yards; the two pokes aggregated just 700 yards. And I got a longer one, potentially, at the fourteenth hole of the same round, where the drive goes straight against a sharply ascending hillside leading up to the green, 340 yards away. With no help whatever in roll, my shot there was just off the corner of the green. I think that is the longest ball I ever hit, for carry, though some have traveled a good deal farther before they stopped rolling. " And this is three very prime years away from Bobby Jones' retirement!

Harry Vardon relates in his book "How To Play Golf", that at his home course at Totteridge in England, he was commonly using a driver and niblick on a 540 yard par 5! There was an outcry then, as now, that the golf ball had gotten too long and was rendering many courses obsolete. So, again, the rules were altered to shorten driving distances and this brought about the split between the USGA and the R&A over the size of the ball (1.68" diameter/1.62 ounces in the USA and 1.62"/1.62 ounces in the rest of the world—which would stand until 1990 when the R&A adopted the American standard).

So golf ball distances were dialed back significantly in the 1930s. Playing with a set of hickory clubs today with a modern ball, many older championship golf courses are again a championship golf course! One of my favorite courses, the championship course at North Berwick in Scotland, at about 6200 yards, is an excellent example of a great course that I feel plays much better with the hickory clubs than modern clubs.

To better understand hickory golf, let us take a brief look back at the history of golf and the evolution of golf club design. Golf's beginnings are lost in the mists of time. We

know golf was being played in Scotland in 1450. The Dutch played a similar game called pall mall from 1300 to 1725, when the game faded out. The two oldest golf courses on the planet are the Old Musselburgh Links, generally considered the oldest, and the Old Course at St. Andrews, both in Scotland. The Old Course at St. Andrews shortened their golf course from 22 holes to the current 18 in the year 1754. At about this same time, shipping records from the port of Leith in Scotland show that a large shipment of golf clubs and golf balls was sent to Charleston, South Carolina!



*John Reid – Founder of the St. Andrews
Golf Club in Yonkers, NY in 1888*

Later in the 1700s, golf was also being played in New York City during the Revolutionary War! The first recorded golf course in North America was not until 1875 in Canada. The first recorded golf course in the U.S. did not come about until the early 1880s when Oakhurst Links was established near White Sulphur Springs in West Virginia; this course is still in existence and hosts the National Hickory Championship each year. The oldest continuously run golf club in the U.S. is the St. Andrews Club which was started by John Reid in 1888 in Yonkers, New York. Like many old clubs, the golf course has been updated so many times over the years, the latest a Jack Nicklaus redesign, that it is vastly changed from the original course.

There are three distinct eras of wood shaft play defined by the golf ball used during these periods. They are: the feather ball era, the gutty era, and the wound ball era. The feather ball era lasted until about 1850, the gutty era spanned the years 1850-1900, and the wound ball era ran from 1900 on.

In the early 1800s, golf blossomed in Scotland. The harsher coastal climate, where the salt in the seaside air stunted plant growth and made the land unsuitable for both farm and pasture use, was perfect for golf. Golfers used a leather covered ball filled with feathers. Wet feathers were stuffed inside a wet leather cover which was then stitched shut. As the feathers dried, they expanded and as the leather cover dried it contracted, so the ball ended up tight and hard.

The ball's cover was quite soft however and susceptible to being cut so iron clubs were rarely used as the balls were relatively expensive. Think of hitting a small baseball and you can see how the trajectory of this early ball produced a low, running shot.

Playing Hickory Golf

Clubheads were long from heel to toe with a shallow face depth to aid in getting the ball airborne. Stronger, skilled players could drive the ball about 180 yards. Par was unknown. Few players broke 100 for a score over the Old Course at St. Andrews during this time.

Match play was the preferred competitive mode. Allan Robertson who took care of the Old Course was regarded as the best player of the day. The problem with the feather ball, outside of the fact that it was time consuming to make and that they cut easily, was that when it rained, which was quite often in the unpredictable weather of Scotland, the leather cover of the feather ball would soak up water and become heavy, loose and unplayable. That was too bad because the sandy coastal soil would soak up the worst downpours and the golf courses would remain very playable.

The solution to this problem came about in 1845, when the gutta percha or gutty ball came on the scene. This ball was made from rubber tree sap imported from the East Indies and Asia, and molded into a smooth surfaced golf ball. Quickly it was discovered that dents in the cover made it fly straighter and so the many different surface patterns began their evolution. This solid rubber ball was, of course, impervious to water damage and was also more durable than the “featherie”.



*Young Tom Morris
Winner of the Open
four consecutive times.*

The gutty ball went about the same distance, but since the ball bounded much more than the feather ball, heated debate arose over the relative merits of each ball. Tom Morris, the young assistant of the staunch feather ball supporter (and feather ball maker!) Allan Robertson, was caught playing this new ball and basically banished to the other coast of Scotland where he became the keeper of the green at Prestwick and started the first international medal play or stroke play championship—the Open Championship in 1860, which he would win four times.

Eventually Morris would return to be Keeper of the Green at the Old Course at St. Andrews. His son, young Tom, would become the almost unbeatable child prodigy champion who would win the Open Championship three straight years, 1868-1870, to claim permanent ownership of the Championship belt. So dominant was he that they didn't even hold the tournament the next year! They held the tournament in 1872 and

again Young Tom won! Tragically he would die later that year on Christmas Day, grieving the loss of his wife in childbirth while he had been playing golf.

Old Tom Morris' influence on the game of golf was extraordinary: he was a clubmaker, a ballmaker, a golf course architect, a great player, tutor to the greatest

player the game had ever seen, and the man who people went to for answers on rules questions. Indeed, the “Royal & Ancient” which is golf’s ruling body for worldwide golf (except in the US) has evolved directly from Old Tom Morris! It is not an exaggeration to say that Tom Morris is the most influential figure in the history of golf! He lived well into the wound ball era, passing on in 1908.

The clubs during the gutty era were similar to the feather ball era but the clubs evolved in response to the harder, livelier gutty ball. Clubheads were beefed up to withstand the impact with the harder ball, inserts in wood faces were a common repair, iron clubs came into their own since the gutty ball could be bladed or topped and the ball would not be ruined like the feather ball would be, indeed it could even be remolded!

With more and more players taking an interest in the game, innovations in club design started to appear in the 1880s and 1890s. Early woods had a concave shape to the face but by the 1890s, innovative clubmakers had figured out that a convex or “bulger” style head actually produced a better shot pattern. Another heated debate arose over the use of the newer, more compact metal-headed putters that were said to lack the feel of the traditional, larger wood head putters. Courses were being maintained better—many with grass mowers by the 1890s so that the really heavy iron heads that were so effective in driving the gutty out of the thick grass from just the previous few years were being replaced by smaller, lighter heads that were more suited to the shorter grasses. As we move into the wound ball era, we see a changing golf world, both in equipment and in the expanding popularity of golf worldwide.



Early Golf Balls

The three distinct eras of vintage wood shaft golf were distinguished by the ball used in each era. These three reproduction balls allow you to play hickory golf from any of these eras. The ball on the left is a feather ball reproduction from the feather ball era which lasted until 1850. The center ball is a gutty reproduction ball used at the National Hickory Championship. The gutty ball was in use from 1850-1900. The far right ball is a mesh pattern ball created by Chris McIntyre of California that was representative of balls from the 1900-1935 era. This ball played very much like our modern ball. There were no size and weight rule restrictions until late in the hickory era.

Playing Hickory Golf

This new era would start with Coburn Haskell's invention of the wound golf ball in 1898. Haskell's patent ball had a solid center, rubber band windings, and a gutta percha cover—very much like a Titleist Professional from just a few years ago! This wound ball era would continue for 100 years! It has only been in the last few years with the introduction of high performance solid center balls, that top players worldwide have stopped playing wound golf balls! Indeed in 2007, no manufacturer that I know of is producing a wound ball.

The switch from gutty balls to wound balls was not something that happened overnight. Early examples of the Haskell ball had their problems. Good players who tested early samples panned the ball as no better or even worse than a good gutty. But the tweaking continued on this ball and in the 1902 British Open, a perennial contender, who admittedly was not quite in the league of the best players of the day, turned out to be one of only a few contestants playing the championship with a Haskell patent wound ball, and, as good fortune would have it, the ball was the very latest, updated version. Sandy Herd went from being about 30 yards behind everyone off the tee to out-driving the longest hitters! Herd won his only British Open Championship, beating Harry Vardon by a single stroke.

The next year, everyone had one of the new wound balls! Sandy Herd had beaten Harry Vardon, the best player of the day, and his two main rivals, J. H. Taylor, and James Braid. Between these three players, they won 16 of 20 British Open Championships between 1894 and 1914!

This wound ball, with its amazing distance off the tee, dramatically changed golf: wood clubheads got deeper and shorter from heel to toe, the old splice attachment of shaft to clubhead was abandoned for the current socket style attachment, iron heads got shorter, deeper and lighter in weight with scoring lines and dots on the face, innovations and patents abounded, and golf courses were lengthened dramatically to provide an appropriate challenge for the longer hitting ball.

The aerodynamics of the new ball were being experimented with as the bramble cover pattern would soon be replaced by dimple (1907) and mesh (1912) patterns. Scottish pros were arriving on U.S. shores where new job opportunities in golf were plentiful in a country where the game had just taken root. Charles Blair MacDonald, a native American, who was sent to prep school in St. Andrews, Scotland at age 17 and who had befriended young Tom Morris and his father, returned to the US with a passion for the game of golf that saw him start the first U.S. Open in 1895 among his many other contributions to golf.

Scots including Willie Dunn helped start the U. S. manufacture of golf clubs with the founding of the A. G. Spalding & Bros. Golf division in 1893, Bridgeport Gun & Implement Co. in 1897, and MacGregor Golf in 1897. Spalding paid for Harry Vardon to come to the US for nine months in 1899 and 1900 to stimulate interest in this fledgling sport of golf. Harry lost one match in that time and won the 1900 US Open!

In 1913, Francis Ouimet, a 19-year-old caddy, tied the legendary Harry Vardon and his buddy from England, Ted Ray, for the U.S. Open title and beat them both in a play-

off the next day! Suddenly America had its own native golf hero! Finishing just a stroke behind was 18 year old American Walter Hagen who would win the title the next year and go on to change the way golf pros would be looked at. With his flamboyant style and personal charisma, Hagen revolutionized the professional ranks that previously



Francis Ouimet – Flanked by Harry Vardon (to his right) and Ted Ray. His victory caught the popular imagination and sparked the growth of American golf.

had such a low social standing that they were not even allowed inside most golf clubhouses.

The 1920s were the Golden Age of hickory golf; with a booming economy and no wars, affluent America took strongly to the game and Hagen was joined by the imported Scot Tommy Armour, Gene Sarazen, and the young prodigy Bobby Jones as the premier players in the world. Hagen would travel the world, winning tournaments and promoting the game; Armour would win all the major championships and eventually gain the reputation as the world's finest golf instructor, Sarazen would win all the major

championships and introduce the modern sand wedge, and Bobby Jones, with his all-American good looks, would go on to do the impossible and win four major championships in one year in 1930 at the age of 28!

With the Great Depression, the coming of the steel shafts and finally war in Europe, the end of a very fascinating era had come to a close. The millions and millions of wood shafted clubs produced during these early eras were largely forgotten about. Some were cut down for junior golfers or used as starter sets. Many just collected dust in a closet or garage. Others were simply thrown away.

It wasn't until 1970 when Bob Kuntz and Joe Murdoch formed the Golf Collectors Society as a means of getting together with fellow collectors to buy, sell and trade old golf items, that interest in these old wood shaft golf clubs would start to be rekindled. In 1970, Frank Hardison, a scratch golfer from California, his brother Dick, and Chet Lynch started playing occasionally with hickory shafted clubs that they had picked up at thrift shops. Frank was a member of Santa Ana Country Club in Orange County, California, and in a discussion with the golf professional, Gerald Hall, they came up with the idea of holding a tournament for members and a few invited guests to play with hickory shafted clubs.



Pat Kennedy of Vermont played in many early "hickory hackers".



Johnny Henry, a legend of Texas golf lore, won the 1977 GCS WORLD'S OPEN HICKORY HACKER CHAMPIONSHIP and is still competing 30 years later.

Their first tournament was held in 1971. In preparing the details for the next year's tournament, they came up with the name "Hickory Hackers". Their first "Hickory Hackers" tournament was held in 1972 with 13 entrants. It was then held in subsequent years for about a decade. The rules of play limited a player to seven clubs, all wood shafts made prior to 1930. A 1916 golf rulebook governed play and all balls were to be teed up only on sand tees! Early contestants included Roger Cleveland, the club designer and founder of Cleveland Golf.

In 1973, Dick Hardison and Chet Lynch, who were members of the Golf Collectors Society, approached Joe Murdoch and offered to put together a hickory tournament for the members of the GCS. They gladly bequeathed the name "Hickory Hackers" to the GCS. At first, the tournament was not held at the site of the annual meeting as it is today, but each member, playing with a fellow member at his own club (or some other mutually agreed upon golf club), submitted course ratings and other details to Hardison and Lynch for equalizing of handicaps. Then on tournament day, each player submitted his scorecard attested by his fellow player or players.

The very first Golf Collectors Society Hickory Hacker Tournament was thus held in 1973 with this unique format and the winner was Jim Monaghan who shot a 72 at his home course with a hole-in-one on the second hole! All in all, 12 players turned in scorecards from around the country in this first event. The next year in the 1974 tournament, brothers Frank and Dick Hardison played the Old Course at St. Andrews with Frank shooting a 78 and Dick a 72, remarkable considering that they shared a five club set, picked up during their travels in Scotland, that consisted of an Anderson semi-long nose spoon, a mid-iron, a mashie, a niblick, and a long nose Forgan putter!

The following year saw the name of the tournament change to the "1975 World's Open Hickory Hacker Championship". Today the tournament is held in conjunction with the annual GCS meeting and draws over 100 players from around the world.

Warren Olson from Denison, Iowa started the “Heart of America Hickory Championship” in 1978 as a regional Golf Collectors Society tournament. Today this is the longest, continuously running hickory tournament in the world, having been contested every year since 1978.

Archie Baird and John Rigg started the Scottish Hickory Championship in 1985 and it became a part of the British Golf Collectors Society agenda.

The Canadian Hickory Championship was the brainchild of Ron Lyons in Edmonton, Alberta, Canada in 2000 and today is one of the top hickory tournaments in the world.

Pehr Thermaenius and Jorgen Linse started the immensely popular Swedish Hickory Championship.

Ralph Livingston III started the first website totally dedicated to hickory golf: **www. hickorygolf. com** and in the year 2000, Ralph also organized a spectacular, now biennial, international “Ryder Cup” style competition between the USA and Europe with David Hamilton of Scotland organizing the European side.

Pete Georgiady was responsible for the USA’s finest championship: the National Hickory Championship which originated in 1998 at the fabulous Oakhurst Links in West Virginia – the oldest golf course in the U. S.

Here, in Pete’s words, is how the birth of the National Hickory Championship came about: “I first heard about Oakhurst from Ralph Livingston and Roger Hill, as well as from Bud Dufner, all of whom had been there around the time the course reopened in late 1994. I had always harbored thoughts about going up there and finally a convenient reason to go appeared. The novelty of a golf course catering to those who wanted to play golf in the ancient style became an entry on my concept sheet, a list of



John Rigg confers with Ralph Livingston III prior to the Scottish Hickory Championship



Canadian Hickory Championship founder Ron Lyons prepares to drive.

Playing Hickory Golf

story ideas I circulated among the golf magazines as I marketed my ideas to get writing assignments. In the spring of 1996, Al Barkow of Golf Illustrated bought that story idea and sent me up there to write and shoot a photo or two. My son Bryan and I went, talked to the Kellers, played golf and fell in love with the place. The story appeared in a summer issue of GI. Shortly afterward, I got a similar assignment from Brett Avery at Golf Journal to do a longer, more detailed story on Oakhurst. I returned to Oakhurst, did my research and played nine holes with Lewis, Sr. It was a glorious early summer day and there was no one else on the course. We played at a very leisurely rate, almost a very deliberately slow pace because we were conversing about so many things. That round of nine took us almost three hours to play, the conversation was so voluminous. I recall distinctly being on the fairway of the eighth hole, around the place where we moderate hitters place our second shots. As I was preparing to make a stroke I stepped back from the ball and looked at Mr. Keller. "Why can't we have a tournament here?" I asked him. And from that moment the idea was hatched. The first several Tournaments were organized by Mr. Keller with



Lewis Keller, Randy Jensen, and Pete Georgiady at the National Hickory Championship.



Today hickory golf is enjoyed worldwide as Hans Murray and Carl Folcker, playing in the Swedish Hickory Championship, can attest.

a lot of help from his family, my son Bryan and myself. I had played hickory golf, of the 1920s variety, almost since my first meeting with the Golf Collectors Society. Knowing the basics of those outings, and that there was a pool of people who were beginning to play hickory golf with some regularity, I set to work to plan for a meeting at Oakhurst. It took a year from inception to execution and the first tournament was scheduled for Independence Day weekend, 1998. Forty-one



The final group plays the last hole at Oakhurst Links in The National Hickory Championship.

using 1920s clubs. Randy, Ralph, and Don Gibboney came with authentic 19th century clubs; the rest of us used Oakhurst's replica sets. There was no prohibition against women but it wasn't until the following year that women entered. The next year 25 people came with antique 1890s clubs. Currently between 65 and 80% of all contestants have antique 19th century playing sets with many golfers using them only once a year—at the NHC. "

With the growth in popularity of hickory golf competitions, club designer and hickory golfer Tad Moore and a core of hickory golf enthusiasts brought the Society of Hickory Golfers into being in 2002. The original core group included: Ralph Livingston III, Tad Moore, Roger Hill, Randy Jensen, Chuck McMullin, John Crow Miller, Winfield Padgett, John Sherwood, Brian Siplo, and Philip Truett.

Today, the future of hickory golf looks bright as more and more first class hickory competitions are added to the schedule every year.

people entered. At that time, a two-day hickory tournament was unheard of. The NHC was the first and was planned that way with the idea that the champion would have to play well twice in order to win. Oakhurst didn't have enough sets of 19th century replica clubs to equip everyone so we had both 19th century and early twentieth century divisions. Randy Jensen won the authentic group while Jay Harris won



Tad Moore not only designs modern clubs, but also reproduction hickory era clubs!



Tom Morris and Tom Morris, Jr.

CHAPTER 2

Choosing Your Wood Shaft Golf Clubs

In preparation for choosing your golf clubs, we shall first discuss how to identify the various different clubmakers who produced hickory clubs. Clubmakers of the hickory era primarily used a “cleekmark” to identify the clubs they made. A “cleekmark” is a symbol that represented the clubmaker and this was either used along with the clubmaker’s name, or sometimes the club carried the name of the pro or retail outlet that sold the golf club, instead of the clubmakers name.



*The Robert Condie rose cleekmark
and the Tom Stewart pipe cleekmark.*

So, for example, Tom Stewart of St. Andrews, Scotland, would make a golf club head. His cleekmark was the “pipe” on the back of the clubhead. This pipe might also be used in conjunction with the “Tom Stewart Maker St. Andrews” stamp inside an oval but just as often the club might have the name of the pro or store that retailed the club, like “D & W Auchterlonie” which was a famous retail golf outlet just down the street from Stewart’s forge in St. Andrews.

Other famous makers and their cleekmarks are Robert Condie and his rose, George Nicoll and the

hand, and William Gibson and the star. Another famous Scottish clubmaker, Robert Forgan—also of St. Andrews—used various cleekmarks over time: a plume with feathers up until 1900, a king’s crown after 1900 and later yet a golf green with a flagstick.

Early American companies had their own cleekmarks and some, like MacGregor, tried to copy the famous pipe of Stewart and rose of Robert Condie because these symbols were associated in golfer’s minds with very high quality clubs. Some very early, pre-1900 irons did not have cleekmarks and may not even have any identifying stamps of any kind.



Some of the many hickory clubs available at Classic Golf in Omaha, Nebraska.

Harry Vardon carried seven clubs in 1900 when he was the best player in the world. I carried six clubs when I won the NHC in 2007. I had a long nose Robert Forgan wood that was 43" long with 14 degrees of loft, a Robert White cleek with 20 degrees of loft, a Forgan iron with 30 degrees of loft (probably also made by Robert White), a Carrick 40 degree lofter, and a Willie Park 50 degree niblick. My putter was a long nose Auchterlonie.

Vardon's set was similar to mine with the addition of a lofted fairway wood. At Oakhurst, the fairway grasses have traditionally been quite long, in keeping with the vintage flavor of the tournament, and long irons and fairway woods are not easy to get airborne; I don't even attempt my 20 degree cleek from these fairways, let alone consider a spoon, but I know players who do use

Many woods made by Robert Forgan and William Gibson only have the name of the U.K. professional who sold the club, stamped on the top. Some American-made woods are the same way. All in all, there were hundreds of cleekmarks and there are some great reference books listed in our appendix that show the companies and their cleekmarks that were used during the hickory era.

These reference books are also very useful in distinguishing between clubmakers and retailers and often provide locations and dates for many different professionals of the era. Let's take a closer look at the clubs from the pre-1900 gutty ball era before moving into the more popular 20th century hickory clubs. These gutty era clubs would be primarily played in the National Hickory Championship with a reproduction gutty ball. Bags are not allowed in this tournament as they were not in common use until very late in the gutty era—so you are not looking to carry a lot of clubs!



My 1920s Tom Auchterlonie hickory shaft driver compared to my 1890s Robert Forgan brassie. Note the long nose design of the earlier club.

them. My four irons are all the early gutty era style, that is to say they all are very heavy and, except for the niblick, have a very long heel to toe length. These heavier, more “cleek” style shapes—longer from heel to toe—are great out of the heavier grasses.



My 1920s Tom Stewart driving mashie with 23 degrees of loft compared to my 1890s Robert White 20 degree cleek. The earlier White club has no face markings and a much longer heel to toe length typical of earlier clubs.



My 1920s Tom Stewart 27 degree iron compared to my 1890s Robert Forgan 30 degree iron.

Playing on more closely mown grass, I would opt for later gutty era clubs that have considerably lighter heads and more of a “mashie” shape—shorter from heel to toe and deeper from top to bottom. The top choices would be clubs made by Tom Stewart or Robert Condie, both of whom apprenticed with Robert White and all of whom were from St. Andrews, Scotland. Condie started making his own clubs in 1890 and Stewart in 1893, at about the time Robert White was winding his clubmaking career down.

These three clubmakers shared an industry secret that made their clubs superior to all other makers and wasn't copied by other manufacturers until the end of the hickory era in the 1930s! That secret was the backward angling of the sole that prevented the leading edge of the clubhead from digging deeply into the ground—known today as the “bounce” angle.



My 1920s Tom Stewart spade mashie compared to my 1890s Carrick lofter, both with 40 degrees of loft.

Playing Hickory Golf

Always check prospective playable hickory clubs for this bounce angle to insure good potential playability. Do this by holding the clubhead up in front of your eyes and sighting the sole from toe to heel. Do not lean the shaft forward or to the rear from your perspective—keep it as perfectly vertical as possible. Now notice the angle of the sole by visualizing a straight line from the lowest point on the leading or striking edge to



My 1920s Tom Stewart niblick compared to my 1890s Willie Park niblick. Early niblicks typically featured a very small head requiring precise contact. This Park niblick is larger than most niblicks of its era, but smaller than post-1900 niblicks.

the lowest point on the rear or trailing edge. This angle should be perfectly horizontal or level to the ground, in the worst-case scenario, or better yet, have a “bounce angle” where the trailing edge is lower, like a modern sand wedge.

When I mentioned that most club manufacturers during the hickory era produced clubs with a “dig” sole angle, where the leading edge was considerably lower than the trailing edge, realize that often these clubs had at least five degrees of dig sole angle and it is not at all uncommon to find 10 degrees of dig sole angle or more! This dig sole angle snags the ground prematurely and diverts the clubhead into a steep subterranean path that often prompts your playing companions to comment, “Gee, aren’t you supposed to take the divot AFTER you hit the ball?” This, while you are left wondering if the damage you feel to

The bounce angle can be measured in degrees: zero degrees of bounce represents a sole that is parallel to the ground when the shaft is perfectly vertical (but at the correct lie angle). This is minimally acceptable. If the trailing edge is lower, you can measure the degrees of bounce as the difference between the sole angle and perfectly horizontal. Two to three degrees of bounce angle is excellent for the narrow soled hickory era irons.

When I mentioned that most club manufacturers during the hickory era produced clubs with a “dig” sole angle, where the leading edge was considerably lower than the trailing edge, realize that often these clubs had at least five degrees of dig sole angle and it is not at all

uncommon to find 10 degrees of dig sole angle or more! This dig sole angle snags the ground prematurely and diverts the clubhead into a steep subterranean path that often prompts your playing companions to comment, “Gee, aren’t you supposed to take the divot AFTER you hit the ball?” This, while you are left wondering if the damage you feel to



My 1920s Spalding HB compared to my long nose Auchterlonie putter that I used to set the scoring record with in the 2007 National Hickory Championship at Oakhurst Links in West Virginia.

your wrists will go away with the numbness you are experiencing in your fingers, or if it is something of a more permanent nature. It is amazing that other clubmakers in St. Andrews at the same time as Stewart and Condie were still producing strong dig sole angles!

Adjusting the loft can change bounce angle and we will cover that in more detail in the next chapter. But know for now that for every degree of loft added to a club, a degree of bounce angle is also added. This is because you are basically turning the whole clubhead so that the face points more to the sky. And for every degree of loft that is subtracted, you also take away a degree of bounce. Loft and bounce must always be considered together to find the best playable range of loft and bounce for each particular club. Few clubs will play well with a stronger loft, but most clubs will play as good or better with more loft.

This positive bounce angle is the main reason so many top hickory golfers today have a bag full of Tom Stewart irons just like Bobby Jones did 80 years ago! And you see so many more Tom Stewart clubs because he made at least 10 clubs for every one made by Robert Condie!

In Horace Hutchison's 1890 book, "Golf" from "The Badminton Library", he details the club choices available to golfers at this time. They included the following wood-headed clubs: a driver, a grassed spoon, a long spoon, a mid spoon, a short spoon, a baffy, and a putter. Hutchison says the new "brassy" is replacing all the various spoons and the lofting-iron has replaced the baffy. Other iron-headed clubs available include both heavy and light driving cleeks and lofting cleeks as well as a putting cleek, driving iron, driving putter, mashie, niblick, sand iron, and putter. Quite the selection!

TYPICAL FEATHER BALL ERA SET (1800-1850)

Playclub
Long Spoon
Mid Spoon
Short Spoon
Baffy
Track Iron
Approach Putter
Putter

All heads would be wood, except the track iron, which is metal. The track iron was used for hitting out of wagon wheel tracks or "ruts" as they would later be called. Playclub length was often 45", just like we have today! Shafts were very whippy ash shafts and the typical beech head would have only around five degrees of loft to achieve an excellent trajectory with the really whippy shafts of the era.

TYPICAL LATE GUTTY ERA SET (1880-1900)

(for use in the NHC)

Driver	43"	10 degrees loft
Spoon	42"	16 degrees loft
Cleek	39"	20 degrees loft
Iron	38"	30 degrees loft
Lofter	37"	40 degrees loft
Niblick	36"	50 degrees loft
Putter	34"	10 degrees loft

Very early niblicks were called rut irons and later era, larger headed models are sometimes referred to as rut niblicks. These early irons had no face markings.



The cleek head shape compared to the mashie head shape. The cleek has a low profile designed to hit a high ball. The mashie's deeper face will produce a lower flying shot.

TYPICAL SHORT SET OF 1920's HICKORY CLUBS

Brassie	43"	12 degrees loft
Spoon	42"	16 degrees loft
Mid Iron	38"	25 degrees loft
Mashie	37"	35 degrees loft
Mashie Niblick	36"	45 degrees loft
Niblick	36"	55 degrees loft
Putter	34"	7 degrees loft

Of course a lower lofted driver could be substituted for the higher lofted brassie. Drivers were usually eight degrees of loft but can be found anywhere from 5-12 degrees of loft with brassies running 10-15 degrees of loft and spoons running 13-20 or more degrees of loft.

FULL SET OF 1920s ERA HICKORY CLUBS

Driver	43"	8 degrees loft
Brassie	43"	12 degrees loft
Spoon	42"	16 degrees loft
Driving Iron	39"	20 degrees loft
Mid Iron	38"	25 degrees loft
Mashie Iron	38"	30 degrees loft
Mashie	37"	35 degrees loft
Spade Mashie	37"	40 degrees loft
Mashie Niblick	36"	45 degrees loft
Niblick	36"	50 degrees loft
Niblick	36"	55 degrees loft
(with more loft)		
Putter	34"	7 degrees loft

Clubs were not generally numbered until the mid 1920s; for a few years in the 1928-1932 range, most manufacturers put both names and numbers on the golf clubs. Thereafter, only the numbers were used. In the set listed above, these names are typical of a Tom Stewart set of clubs and the lofts are also typical Stewart lofts. Other manufacturers often used different names and sometimes, for example, mashie lofts might be found anywhere from 32-40 degrees, depending on who produced the club.

In the Tom Stewart line, the first four irons can also be found numbered 1, 2, 3, & 4. Tom Stewart originally produced these four numbered clubs for John Low. Low had asked Stewart to duplicate his favorite mid iron and to produce three more incrementally lofted clubs with the same head shape.

There were also other options within the Stewart line for irons: the "Jigger" was a very cleek-like style head shape with 30 degrees of loft used for full swings and around the greens as a run-up club. The "Mongrel Mashie" was a club designed to be in-between a mid iron and a mashie that had about 30 degrees of loft. The "Sammy" was a lower lofted jigger style club with about 23 degrees loft. The "Driving Mashie" was a deeper faced, shorter from heel to toe, driving iron with about 23 degrees of loft. The "Mongrel Iron" was another cleek variation at 20-25 degrees of loft that was a favorite of Harry Vardon.

There was a "1 Mashie", "2 Mashie", and a "3 Mashie" in the Stewart line as well. The "Young Benny" and "Benny" were specially shaped mashie niblicks with around 44 degrees of loft that were named after Benny Sayers of North Berwick, Scotland. There was even a "Freddy", a 21 degree barrel-backed iron similar to a "Sammy", which was named after Alfred L. Johnson, a large retailer out of Boston.

Playing Hickory Golf

There were a number of other unusually named and unusually shaped Tom Stewart irons that makes it a lot of fun to collect and play them. Nearly all pre-1900 irons have no name and consequently many early 1900s Stewart irons are plainly a mashie, mashie niblick, or niblick but they are not marked.

Tom Stewart put his trademark registration information underneath his pipe cleekmark on the back of his irons starting in 1905. Any Stewart irons that have just the pipe without the "TS.StAREGTRADEMARK" underneath the pipe were produced before 1905. They are considered legal for the National Hickory Championship, pre-1900 division.

There was quite a variety even among head shapes as Stewart offered many different "mashie" head shapes alone. You might choose from among a dozen head shapes and several face scoring patterns just for your mashie! Stewart produced heads only, so others shafted all the heads. Today our generally taller players may find a number of these earlier clubs shorter than they would prefer.



Joe Manley tests his shaft's flex during a casual round of hickory golf in Nebraska.

In choosing your clubs, getting a good shaft is as important as or more important than getting a good head. In fact, I usually make decisions on heads only, shafts only, and then on the combination of head and shaft. A lot of times, a great head comes with a poor shaft or a great shaft is on a mediocre head. So the great head or great shaft can be mated together to produce a really good playing club. Many times shafts can be switched from head to head, but there are many different hosel sizes and many different shaped shaft tips so not all combinations will work together.

The first thing to check is to examine the shaft closely for any cracks. You must look very closely as small hairline cracks are difficult to spot. Basically go over every square inch of the shaft thoroughly. Some cracks can be repaired (see the next chapter). Many cracks start just above the hosel and that is why you will see good players reinforce their clubs at this point with whipping thread as extra security against breakage.

While you are looking for cracks, note the shaft finish—is it all dried out? Does it have dark blotchy areas? The best scenario is for the shaft to have a nice protective coating of shellac still on the shaft. Shafts that are dried out will tend to have lost too much moisture and be brittle and susceptible to cracking. Dark, blotchy areas on the shaft can be previous water damage that may have weakened the shaft.

Next, look down the length of the shaft to see how straight it is. Rotate the shaft as you are sighting it for straightness. Obviously it is best if the shaft is perfectly straight. This usually indicates that the shaft was a split hickory shaft, not a sawn or sectioned out shaft. A split hickory shaft was a more costly way to produce a shaft as a person had to split the log manually with an axe. The shaft was then cut so the grain of the wood ran the length of the shaft. These shafts tended to stay very straight.

However, it was more cost effective to simply section the wood out by machine with the result being that usually the grain of the tree ran at an angle to the shaft, and that is the direction the wood tended to warp after a time. You can spot this in a shaft by looking at it.

First look at the butt end where the shaft tip pokes through the grip wrapping. Count the growth rings to see how tight the wood grain is. If you count about seven growth rings, that is average. Fifteen growth rings are exceptional. Twenty-three rings are the most I have ever counted. Three or four rings would indicate fast growing, second growth hickory that is not of high quality.

You want first growth hickory from a shaded forest where yearly growth was slow and the rings are close together. This is the strongest wood. The rings should run parallel to your golf ball's line of flight with the center of the tree towards the toe side of the club. This is the position where the shaft will withstand the most impact pressure without breaking.

Now, say you have seven growth rings at the top, look down the topside of the shaft just below the grip all the way to the clubhead and look for grain run out which will appear as a



Growth rings at the butt end of a hickory shaft. The more rings, generally, the stronger the shaft. The rings should parallel your target line for maximum shaft strength.

Playing Hickory Golf

“V” in the grain pattern of the wood. This is where one particular growth ring ends because it ran at an angle to the cut wood.

Say you had eight “V’s” as you went down the shaft. That means there is no growth ring that runs the entire length of the shaft and since the shafts tend to break along these growth rings, this shaft is much more likely to warp and to break.

Now imagine a 20 growth ring shaft that you could find only three or four “Vs”, that means you have 16 growth rings that run the entire length of the shaft and this shaft will be straight and strong! Most hickory shafts have some amount of warp as most shafts were sectioned out and not manually split.



There is still a plentiful supply of hickory era clubs available to create your own hickory golf set.

Scottish made clubs, especially those produced by Forgan and Auchterlonie, had the very best shafts. The Scots found that hickory trees in Tennessee were ideal for their golf shafts. Trees that grew too far north had brittle wood, too far south and wood had too much heat and moisture. The ideal shaft would probably come from a densely forested north hillside in Eastern Tennessee, about halfway up the hill, and be split by hand with an axe before being fashioned into a shaft!

The leading Scottish clubmakers purchased land in Tennessee just to provide the hickory that was not native to the British Isles. Cheaper American made clubs had the worst shafts. Most MacGregor and Wilson clubs had really low-end shafts. Spalding was the premier American company and their best clubs could have some really good shafts. And like we mentioned earlier, if it doesn't say Tom Stewart in the oval, the names on the back of the Tom Stewart irons are the pros and retailers who shafted and sold the clubs. Some, like “D & W Auchterlonie” of St. Andrews or “Edwin

Sinclair” of Tayport, Scotland, used really good quality shafts, while others may not have.

Minor to moderate warping can be straightened; it is a judgment call as to how much warping and straightening you would like to tolerate. Some warp was actually created by the clubmaker. A backward bending of the shaft just below the grip and towards the golfer was done on purpose and called the “St. Andrews bend”. This was done to help create a stronger sense of being able to keep the face square as you were swinging the club—very similar to the Matzie offset weighted swing trainers that help slicers to feel their hands turn through impact that are sold today.

Always check the length of any prospective clubs. Players were not as tall during the hickory era as they are now, so many clubs are a little shorter than taller players might prefer today. Beware of the clubs that were shortened to junior length. Hickory clubs can be extended, but only 2" at the maximum if you intend to play the club. Clubs that are more than 2" too short are going to need to be reshafted and that will add considerably to the club's cost. Often this makes the club a poor purchase from a money standpoint. Length and swingweight go hand in hand. For every 1/2" shorter or longer, you lose or gain three swingweight points. A club that is 2" short will be 12 swingweight points light. Many hickory clubs and even many made by Tom Stewart are too light to be maximally effective. I would say that clubs between C-3 and D-7 would play fairly well. My set of clubs, except my heavier niblicks (which I often grip down on), has swingweights between D-1 and D-5. This is a very tight tolerance. Only a fine touch can distinguish a difference of three swingweight points, so D-1, D-2, and D-3 will all feel the same for most players.



Max Hill looks on as Rob Ahlschwede, an international player, examines a prospective hickory shaft.

It takes about two grams of weight to make a swingweight point. Many hickory clubs will swingweight in the B range. This is too light for most players. You can add lead tape to an iron if you like—I don't like to because I want to see the maker's stamps! I will pass on any hickory iron that is this light. Here's another little secret to finding a great playable hickory club: check the sole width on the bottom of the clubhead; clubs with a slightly wider sole (and hence more weight low in the head) will generally always feel and play better than a similar club with a narrower sole! And a very small sole width difference makes a big playability difference!

Weight can always be added to woods either under the soleplate or in the lead weight cavity in the rear. Another key thing to look for in your wood selection is how big the actual clubhead is. In particular, you would like to find a driving club with a big hitting surface. This is difficult because most heads produced during the hickory era were smaller. Players today are accustomed to large 460 cc titanium golf heads, but the perspective during the hickory era was quite different. Many players used the 1.62" diameter golf ball during the hickory era (we use a larger 1.68" diameter now) although balls ranged from about 1.55" to 1.74". Many companies offered small, medium, and large size golf balls in light, medium, and heavy weights for nine possible combinations that you could play!

Playing Hickory Golf

The average depth of a hickory driver face at this time was 1 3/8" deep. The classic MacGregor persimmon drivers from the 1950s were 1 5/8+" deep. Most current drivers are 2" deep or even slightly more. The smaller hickory driver heads can take some getting used to, especially from a psychological standpoint. It is easy to feel you just don't have enough head to hit with. Once you play with the smaller headed driver for a while, you get used to the size and generally play fine.

Some players may want to find a larger-headed driver so that they will feel more comfortable. Shots that you pop up with a 1 3/8" deep face are usually launched nicely with a 1 1/2" deep face. Wilson Sporting Goods made the deepest-faced driver heads of the hickory era. The Wilson Wilsonian model brassie often had a 1 5/8" depth head



Finding the right driver is critical for success at hickory golf!



A modern 460 cc driver head compared to my Tom Auchterlonie hickory shaft driver.

with a strong, thick neck that looked like a premium MacGregor from the 1950s! These clubs had mediocre shafts as a rule, so there is that trade-off. The Wilson Wilsonian model drivers were shallower in the face and not quite as playable.

There are many models with the deeper 1 1/2" depth faces, often these clubs are the slightly more lofted brassies which can run from 10 to 15 degrees of loft and which for most golfers actually make the best driving clubs. The slightly higher lofts reduce sidespin and the higher trajectories couple well with the aerodynamic design characteristics of our modern ball to produce more distance. Even in the hickory era, many good players only used the low lofted driver going into the wind!

In choosing your fairway wood or woods, look at the lie angle of the club you are going to be attempting to hit off the

fairway. Many hickory woods have a very flat lie angle that makes it quite difficult for the average to taller player to make good ball contact with. The toe digs into the ground before contact with the ball spoiling the shot of even the best swings for players who need an upright lie angle. There are a lot of 52 and 53 degree lie angle fairway woods out there which is really good news if you are 5'6", but really bad news if you are 6' or taller.

There are some 56-degree fairway woods around, but the best bet for the taller player are the "bulldog" style fairway woods, which generally have lie angles in the 58-62 degree range, making them perfect for even the tallest golfers! These bulldog heads are characterized by their compact, deep-faced design with a very pronounced, rounded camber to the sole.

Robert Forgan and William Gibson of Scotland made premium hickory era woods. Their shafts were especially good. The Wilson Wilsonian model brassie has a great head. Any woods stamped with either "Tom Auchterlonie" or his brothers "D & W Auchterlonie" are usually excellent. William Mills made some great hybrid style aluminum woods that play great. Spalding and Wright & Ditson (owned by Spalding) produced the best American made models. Burke and Kroydon had some good hickory woods. MacGregor had mostly woods you would want to avoid.



I prefer either Tom Stewart or Robert Condie irons.

In the irons, Tom Stewart and Robert Condie were in a league of their own. William Gibson and George Nicoll were good Scottish makers. The Spalding Kro-Flite model was the best from the U.S. Some Kroydon and Burke models play fairly well. Most Wilson and MacGregor irons are good for hanging on the wall, but that is about it. Bear in mind that it is possible to find poor clubs from Tom Stewart or Robert Condie and you could find a really good club made by MacGregor, but these would be the rare exceptions.

There are an incredible variety of hickory putters that one may choose from and this makes it quite fun to test and locate a favorite hickory putter. One of the things I really enjoy about playing hickory golf is the search for that perfect club! There are some basic guidelines for your hickory putter search. Most of the putters are very

light in head weight and total weight. Most lie angles are flatter. And most putters have more loft than we see today (the greens typically had longer grass and more putter loft made the ball roll better). Most putters are lightweight blade putters that are not going to be optimally desirable.

Playing Hickory Golf

A modern putter has a head weight of at least 300 grams and a total weight of 16 to 17 ounces total weight. Modern putter lie angle is 72 degrees and modern loft about 3-4 degrees. Common modern length is 34"-35". The old hickory putters are often only 270 grams of head weight and 14-16 ounces total weight with a 66 degree lie angle and 7 or more degrees of loft at 33"-34" in length. Putting cleeks are generally around 10-12 degrees of loft!

Many of these specifications can be altered and other specifications can be alternatives for you, the hickory golfer, to test play and decide for yourself the merits of these alternative design characteristics. Some you may like and others may be relatively unplayable for you. I know I like the heavier weighting of the head—I just seem to putt better, but I know players who do very well with the lighter heads!

The flatter lie angles were a result of not arching the wrists in the putting stroke like most current players do—this was popularized by the great Horton Smith who won the Masters in 1934 (the 1st year!) and 1936 and was considered perhaps the best putter of his day. He consciously arched his wrists considerably (Bobby Jones did not) and claimed this was part of the reason for his success!

Prior to that the wrists were not arched—thus a 66-degree lie angle instead of 72 degrees. I think distance control is much better with the lower hand position and this would be extra important on slower greens. Yet, on faster greens, most players today prefer the arched position. I like a little more loft but modern players, accustomed to closely mown, faster greens will bounce the ball to the hole with those higher lofted putters and it will hurt their distance control.

Fortunately, the forged hickory era putters are easily adjusted for loft. The aluminum and wood mallets are another story, however. The aluminum mallets just break with any attempt at a loft adjustment,



A good hickory shaft putter can be every bit as good as the best modern putter!



William Mills produced very high quality cast aluminum putters (and metal woods and hybrid style clubs!) that were used by champion golfers like Ted Ray and James Braid.

so the faces would have to be filed or milled. Of course, a wood face could be filed to a lesser loft. Another thing to look for on a hickory face is the flatness of the face. Modern manufacturers often mill their putter faces to a very high degree of flatness. MANY hickory putters have faces that are so NOT flat that you don't get a good straight shot pattern off the putter face. Often two good putts hit just 1/16" away from each other travel quite different paths! These will need to be filed flat in the central hitting zone.

Some really good playing hickory putters that I have tried over the years are: the Spalding HB (Tommy Armour's favorite), the Spalding Chicopee, the Schenectady, the Ben Sayers "Benny", the Otto Hackbarth, "Gem" putters from Stewart, Nicoll, or Gibson, the Huntly, the Eskit, the BV (Brown-Vardon model used by Harry Vardon), the



The Schenectady putter is one of the most famous hickory era clubs and it was banned in the UK for many years due to its center-shafted design.

Dominie, various Mills mallets, the Kempshall mallet, many other wood and aluminum mallets, and the Kroydon SS08. Certainly there are many other possible great hickory putters. The Tom Stewart blades, favored by Walter Hagen, are almost all very light in swingweight and total weight—but they have won 7 U.S. Opens! The Spalding Kro-Flite, Robt. T. Jones, Jr. "Calamity Jane" putter that came out in 1932 is a faithful reproduction of the hickory putter that Bobby Jones won the "Grand Slam" with in 1930, but, again, it is so light in weight that a friend of mine, Jason Egnatz, dubbed it the "Catastrophe Jane" while watching Chris McIntyre try to putt with one!



The Bobby Jones Calamity Jane was issued by Spalding in 1932 as an exact reproduction of the putter that Bobby Jones used to win his famous Grand Slam in 1930. The putter was released in both steel shaft and hickory shaft versions. It is a great collectible today and what better putter to try than the one that made Bobby Jones famous!



This is my A.G. Spalding & Bros. HB putter. The HB stands for hollow back. Tommy Armour used this model during his prime competitive years. I painted a sightline along the top edge that can be rubbed away if I want the original look someday.



The bottom view of my HB putter. MacGregor would later produce this putter in the 1930s in a steel shaft with Tommy Armour's name on it. Arnold Palmer would become legendary using this putter to win his many steel shaft tournaments.



The Walter Hagen Convex and Concave sand wedges. Bobby Jones used the concave design to win the Grand Slam in 1930, but the club was banned the following year. Both clubs are legal in a hickory tournament.



The back side of the two Walter Hagen wedges

Finally, we will discuss possible clubs that may get you out of the sand because this will probably be the last hickory club you are likely to find for your playable set. The problem is that there are few of these clubs around since they came out so late in the hickory era. It wasn't until 1932 when Gene Sarazen welded some extra weight on the sole of his niblick, that the modern sand wedge with a wide sole and a bounce angle of about 14 degrees was created. Gene won both the U.S. and British Opens that year, putting his modified bunker iron into his bag upside down to keep it from prying eyes and perhaps sparing it the fate of the short lived Walter Hagen concave sand wedge that came out in 1929 and was banned in 1931 after Bobby Jones had used one in his Grand Slam year of 1930.

So it wasn't until 1933 that Wilson marketed this new, innovative design and not until 1934 that most other companies had a chance to offer their version of this new and highly effective golf club. By this time, there were few hickory clubs even being produced as most manufacturers had virtually switched entirely to steel shafted production. Hence, good luck finding an equivalent to our modern sand wedge! There are some very good clubs that are available once in a while, however.

The best are probably the "Maxwell" patent mashie niblicks and niblicks. The Maxwell patent was for a hosel with holes drilled through it that offered a way to more positively lock the shaft to the clubhead, as the wood of the shaft would swell into the holes and keep the shaft tight (it also reduced hosel weight which helped lower the club's center of gravity). The patent also included a flanged sole that in these Maxwell clubs often produced a nice bounce angle!

By increasing the loft of a 52-degree niblick with six degrees of bounce to 56 degrees, the bounce goes to 10 degrees and suddenly you have a nice sand wedge! Or better yet, start with a heavy headed 45-degree mashie niblick with four degrees of bounce and go to 55 degrees loft and 14 degrees of bounce—awesome! Not all Maxwells will work, however, as numerous clubmakers produced Maxwell patent irons and some have very light heads and others have a strong dig sole angle.



A Maxwell Pattern iron by Tom Stewart. The Maxwell patent included a flanged sole as well as the holes in the hosel.

Spalding produced a heavy, wide soled niblick that was often stamped “PGA”. Gibson, Stewart, and Nicoll all produced a few flanged niblicks with bounce though these are very hard to find. The Walter Hagen Concave Sand Wedge has never worked well for me, but Bobby Jones liked it! The Hagen has 45 degrees of loft measured from top to bottom edge and it has no bounce. The club hits high shots low off the face and low shots high off the face because of the concave face—this is exactly opposite of what you would expect and what you would intuitively do, so I don’t really care for the club as a player—great collectible, though.



Ralph Livingston III attempts some short game magic at Oakhurst!

There are some players who are very good with a narrow soled niblick—Ralph Livingston III is the best I have ever seen at this shot. He would just hit close to the ball with a wide-open face and he was more likely than not to get up and down! And Ralph had a flanged Tom Stewart niblick in his bag that he did NOT use out of the sand—go figure! So don’t discard the value of using a regular niblick, especially since you may not have a lot of choice.

My 1920s HICKORY GOLF SET from 2007

Club	Loft	Length	Distance
Tom Auchterlonie Driver	8	43"	270 yards
J. Randell Brassie	13	43"	250 yards
Ben Sayers Gruvsol Model J Spoon	15	42"	235 yards
Robert Condie stamped for D&W Auchterlonie Driving Iron	18	39"	220 yards
Tom Stewart stamped for Finnegan's Driving Mashie	23	39"	205 yards
Tom Stewart stamped for D&W Auchterlonie Iron	26	38"	190 yards
Tom Stewart RTJ stamped for A.W. Butchart Mashie	35	37"	170 yards
Tom Stewart stamped for Arthur Ham Spade Mashie	40	37"	155 yards
Tom Stewart stamped for D&W Auchterlonie Mashie Niblick	46	36"	135 yards
Tom Stewart RTJ stamped for J. Crowley & Son Niblick	54	36"	95 yards
Walter Hagen convex face Flanged Niblick	56	35"	30 yards
A.G. Spalding & Bros. HB Putter	5	33"	



Chipping with my Walter Hagen Convex Sand Wedge.

The Hagen flanged niblick has a Danga wood shaft and a convex face that has 52 degrees of loft low on the face, 56 degrees of loft in the center, and 60 degrees of loft high on the face! This club was made by William Gibson and is quite difficult to find, but is a great club! I have had great success in the past with a Wilson "Wilsonian" model 10 degree brassie with the deep 1 5/8" face. This driving brassie has an aluminum soleplate (stamped "Brassie"!) and is 43" long. The shaft has two different bends in it, but I really got a very good shot pattern out of it when I was swinging well.

I actually dropped three clubs out of my bag in midyear 2006. I had a wonderful 30 degree Tom Stewart mashie iron stamped for the Olympic Club (really rare) that I just did not seem to hit as well as my "Iron" — and I'm talking about really easing off my iron shot and I would still be more effective than the mashie iron at full swing.



Occasionally I will take an entire bag of different hickory clubs to the course to test play and evaluate.

The other club I dropped was a really nice Tom Stewart "Young Benny" stamped for Ben Sayers of North Berwick. This club was 43 degrees, halfway between my 40-degree spade mashie and my 46-degree mashie niblick. The problem was that my 46-degree mashie niblick seemed nuclear powered and would frequently launch the ball as far as the Young Benny! So I was just carrying a duplicate club in terms of distance hit.

I also had a second mashie niblick, a beautifully shaped Robert Condie with 50 degrees of loft and a great shaft that I wanted for 100-120 yards, but I wasn't as consistent with it as I was with my three quarter nuclear mashie niblick. I've also got a great Tom Stewart RTJ spade mashie stamped for Ted Ray that I keep breaking whatever shaft I put in it, which is five and counting right now.

When I go to Scotland, I have a Stewart jigger with a great Ben Sayers stamp and an extra wide sole which works great for run up shots around the greens on those firm fairways over there. I

Playing Hickory Golf

have an entire back up set in case I break a club mid year and need a quick replacement.

I have fun restoring and testing clubs to find good potentially playable clubs. I generally only go two deep on my own playable clubs, though I have a few miscellaneous third string clubs that I just like to keep. I have kept several putters that I have putted really well with over the years and I recommend owning at least a couple if not more so you can rotate to a new one in case your putting goes stale. Sometimes just a fresh look can rejuvenate your putting stroke.

I have a really nice Ben Sayers “Benny” putter that I won the 2004 Canadian Hickory Championship with and that would be my second string putter. It is weighted great with a D-0 swingweight at 17 ounces total weight and six degrees of loft at 35”. I also have a late era Tom Stewart Henry Cotton blade putter also stamped “Spalding” from circa 1935 that is excellent and virtually the same specs as the Benny. I recently acquired a long bladed Stewart FO/RTJ putter that feels great indoors and should be fun to test play on the golf course. Ralph Livingston III putts very effectively with one of these.

Years ago I had another Spalding HB putter like the one I am putting with now. These are great putters and the model preferred by Tommy Armour in his prime. This putter later became the MacGregor Tommy Armour Ironmaster putter when Armour



I love to test different putters at the golf course.

signed with MacGregor in 1934 (they first started selling them in 1935). These putters were produced with Armour’s name all the way up until 1967! Arnold Palmer used a circa 1950 MacGregor Tommy Armour Ironmaster putter that he welded an extra bit of flange onto to win his major championships and Wilson marketed his redesign as the Wilson “Designed by Arnold Palmer” in 1962 and later as “The Wilson 8802” and then “8813” which were popular tour putters and used by Greg Norman, Lee Trevino, Tom Watson, and Larry Mize, among others, to win major championships!

These putters are really just an HB with slightly more offset and a tiny bit more flange! I currently have my HB putter at 33” with a head weight of 330 grams. The head originally weighed 278 grams and I have added lead tape along the back flange to bring it up to its current weight, which produces a C-5 swingweight, and 17 ounce total weight. The putter is at a 69-degree lie angle and has five degrees of loft. I use a medium size round buffalo leather grip, smooth side out, on the putter; all my other clubs feature a rough side out buffalo leather grip with pine tar which we shall discuss in detail in the next chapter!



J. H. Taylor

CHAPTER 3

Repairing Your Wood Shaft Clubs

Just as you can repair and alter many characteristics on a modern golf club, so too can you change, modify and repair wood shaft golf clubs. A large part of our business at Classic Golf in Omaha is in restoring vintage clubs for play or display and here we will go over some typical repairs.

Regripping

Original hickory grips are often quite worn and slick and are hard to hang on to when playing. Other grips are even loose and spin in your hands when you are swinging! These are certainly not conducive to your best golf, so it is a good idea to change to a fresh leather grip on your playable hickories.

We cut our own leather hides here at Classic Golf and, really, anyone can do this fairly easily. Start by purchasing a leather hide that is tanned in such a way that the leather is very soft. Some tanning processes produce a very firm piece of leather best for furniture but poor for a golf grip. "Chrome Tanning" is no good. "Vegetable Tanning" is good. You will need to cut strips tapering from about 1 1/2" to 1" in width over a 32" or more length.

We use a roller blade on a wood table with an epoxy resin top for cutting the strips. The leather should be a thickness that is measured by leather people as 2-3 ounces. For oversize grips or for very supple leather like deerskin, you can use 3-4 ounce. Thicker leather strips than those become not only difficult to work with, but too large for most everyone's hand size.



I use a ruler and a roller blade to cut leather grip strips from a buffalo hide.

Playing Hickory Golf

Different leathers have different advantages: cowhide is cheap, deerskin is super soft, elkskin is both soft and durable, buffalo is tough and has a lot of nap on the rough side, moose is similar to buffalo, goat and lambskin are other possibilities but I haven't liked them as much as they had too much stretch and didn't wrap as well as others.

Buffalo is my favorite for rough side out grips and while it is good for smooth side out, elkskin and especially deerskin are fantastic for a soft smooth side out leather grip. Start with about a four-ounce piece of deerskin because it will really stretch!



Rough side out buffalo leather, treated with liquid pine tar, is my favorite grip.

Harry Vardon's Secret

Grips can be installed either smooth side out, which is by far the most common, or rough side out or suede side out with all the stringy nap of the leather showing. Virtually every hickory club you see has the original grip installed smooth side out. This generally looks better and feels better when you hold the club. However, Harry Vardon used rough side out grips AND he won a record six British Open Championships (a record that still stands today!) and was considered the best player of his generation.



Tremendous force is delivered to the ball during a golf swing and your grip must be secure.

Why would Harry use these rough side out grips? If you have ever played golf in the U.K., you know how often it rains and when smooth side out leather grips get wet, the club just slides right through your hands. Now Harry Vardon never mentioned WHY he liked rough side out grips, he just mentioned that he used rough side out grips while most players preferred smooth side out leather grips.

Well, if you wet down a rough side out leather grip—and I mean totally soak the grip—and totally soak your hands in water as well, the club sticks like glue to your hands when you swing it! It is the most amazing thing! So Harry had no interest in giving away this highly useful bit of knowledge as his competitors were at a distinct disadvantage every time it rained on the golf course! I play rough side out buffalo leather on all my clubs except the putter where I have a smooth side out buffalo leather grip.

I also treat all my grips with pine tar, which improves their gripping power in dry conditions and

still allows for the great wet weather playability that this rough side out grip possesses. Make sure you get real liquid pine tar, 100% pine tar, as some “pine tar” is more like an industrial sludge-like waste material marketed as pine tar that just makes your grips slick; you can tell by the smell—if it smells like a sewer, stay away. Real pine tar will smell like a fresh pine tree.

We use a 1” wide double-sided friction tape, commonly called hockey tape, as the underlisting on the grips. This tape will provide the build-up and the stickiness to make your leather wrap adhere correctly and be the right size.

To get your grip size correct, use dial calipers and measure down 2” from the top of the wood shaft. A standard size leather wrap will go on at standard size when this measurement is .720” with the friction tape. There are all kinds of variables to this sizing however: every shaft can be a different diameter so some shafts will need extra friction tape wraps while another shaft may need to be sanded down so it is a bit smaller; every piece of leather can be a little different, even two strips cut from the same hide can vary significantly and different parts of a strip can have varying thickness; the taper of the wood shafts can vary so that the club might measure OK at the top, but taper too quickly or not enough so that the grip size under the right hand is not correct.



A good grip leads to a confident swing.

Check these variables by test winding your leather strip on the club and making sure it feels OK before you tack it in on the top—often a thin piece of leather will need an extra wrap of friction tape to feel like your other grips. You can use the dial calipers to find your favorite finished diameter measured at a couple points on the grip—2” down and 6” down are good positions to measure. That way you can check each individual wrap wound on the club before you tack the top and whip the bottom and make any adjustments that may be needed. At the 2” down point, a finished grip in

Playing Hickory Golf

standard size should measure about .840" and at 6" down it will measure about .810". My grips are about .860" and .830" at these two points.

I like to create a taper at the top of the grip by cutting and applying thin strips of friction tape to the top of the shaft. Over a 1" measurement from the top of the shaft down, I will layer the friction tape so that I have six wraps, five wraps, four wraps, three wraps, two wraps, one wrap, and then just the wood. To this I will then angle cut and wrap a single strip of friction tape the entire length of the grip area. This taper helps provide a secure "knob" at the top of the grip, making it more difficult for the club to slide through your hands during the swing.

Some players prefer no top tapering. Indeed, if you are just putting or chipping, it is unnecessary. One can be very creative with grip profiles, especially since there are no sizing restrictions for hickory play like there are today. I like to have my grips legal for current play as well so I don't get too carried away, but a person could produce a grip profile with a smaller diameter where the left hand little finger holds on near the top of the grip for an extra secure feel; legal for hickory play, not legal for modern play!



Find your ideal grip size and shape to play your best hickory golf.

good. Then I tried recessed cord that wasn't as thick as the leather; I would wrap two, three, or even four different colors of hemp twine between the leather wraps—this looked awesome and played quite good as well; I played these fancy grips for a year and did quite well with them!

If you are really ambitious, you can do it like my brother showed me and braid your leather grips on like they used to do for whips—this provides a very secure grip as well as quite a unique look! You have to pine tar the grips before you add any twine;

You could make your grips larger under the right hand than under the left—again, legal for hickory play, not legal today. Also, anything goes for the hickory putter grip; I spent about six hours one time building a beautiful paddle style grip, similar to the hickory era Walter Hagen putters, but larger and with a nice flat front side, only to find that I really putt just as good or better with a round putter grip just like on the rest of my clubs.

I have also experimented with different twine and cord wraps installed between the strips of leather. I first tried a hemp cord (hemp is very resistant to water and weather damage and is more vintage than nylon cord, which could be used) that was raised up slightly higher than the leather grip itself. I would wrap this in between the leather as I wound the grip on. This actually felt quite

otherwise the twine gets all discolored and doesn't look nearly as good. The twine grips take about twice as long to install and require quite a bit more skill to wrap correctly, but they sure look great and you can pick any colors for the accent trim. The braided grips also take more time to install, especially when you must learn the braiding techniques!

Anyway, let's look at a simple leather grip installation. First we take the old grip off. Cut all the whipping thread away at the bottom of the grip and at the top if there is any there. Next, gently pry loose the tack that holds the grip at the bottom and start unwinding the grip. There will be a tack at the top as well and gently pry this out, too. You may reuse these tacks if they come out with a reasonably straight tip, otherwise you will need to use a #1 or #2 size tack and these are hard to get, usually by special order from a hardware store only.

The #1 size tacks are smaller and if you use too large a tack, you split the top of the wood shaft. Nail the tack into the grain of the wood (from behind the clubhead) to avoid splitting the shaft. You could grind down the tips on a larger tack if you desire. Obviously, if you used a lot of build-up tape or had a really thick piece of leather, you would want a longer tipped tack so it would just penetrate slightly into the wood shaft. Sometimes the older wool underlistings are tacked in as well, so you may need to repeat this whole procedure with the underlisting.

Once you've stripped everything down to the bare wood, examine the area under the grip for any damage or irregularities. It is best to have pulled out all the old tacks, but sometimes they have rusted away so bad that the top of the tack breaks off; in that case, just file the tack stem flush with the wood shaft—don't hammer it into the wood as this can split the shaft.

Measure the diameter 2" down to see where you are; you may get a reading anywhere from .670" to .750". About .700" would be ideal. Next build up a taper at the top of the grip, if you would like one, using the friction tape, then snip off about a 2" section of friction tape at a 45 degree angle and wrap the snipped end flush with the top of the shaft so that you can wind the friction tape at a 45 degree angle down the shaft. Butt the edges of the tape up next to each other with no overlap and go all the way down until you cover the old tack hole at the bottom of the shaft.

Now measure again with your dial calipers 2" down the shaft; about .710" to .720" will produce a standard size grip with a 2-3 ounce (thickness) leather wrap. I like .740" to .750" at this point for my grips, which are just a little oversize. I will go just a little larger for my driver and just slightly smaller for my niblicks that I use around the green. I keep my putter this same size as well, except I don't use any taper on my putter.

Angle cut the top of the leather grip (the wider end) so it will wrap the same way as the friction tape and test fit it on the club to make sure the size feels right and that the leather strip is long enough to cover the bottom tack hole. When you are sure the fit is proper, tack the top of the leather grip to the shaft using a small hammer and a #1 tack or something similar. Wrap the grip on past the bottom tack hole and temporarily



You must tack the top of your leather grips or they will loosen and need to be redone.

wrap a 3/4" piece of masking tape around the bottom to secure the leather strip in place as you do a final check for size.

Cut the grip to final length using a sharp razor blade, leaving half of the masking tape intact to secure the bottom end of the grip. Make a taper cut along the bottom edge of the leather grip and remove the masking tape so you can whip the lower end of the grip. The original leather grips were all tacked at the bottom, but I omit this step to avoid another puncture in the wood shaft and instead cut a small strip of two-sided friction tape pulling it tightly around the, now tapered, lower edge of the grip and then whip over the top of this thin strip of friction tape.

I have never had a grip loosen at the lower end when it is finished like this and the structural integrity of the shaft is not compromised. If you don't tack at the top, however, it is just a matter of time before the grip comes loose—usually sooner than later!

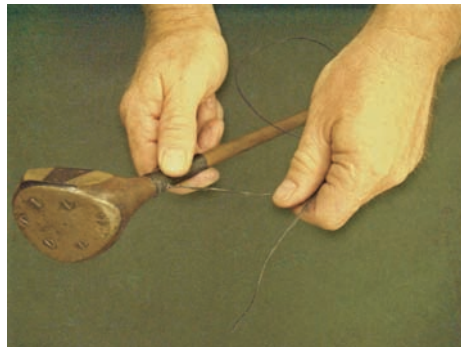
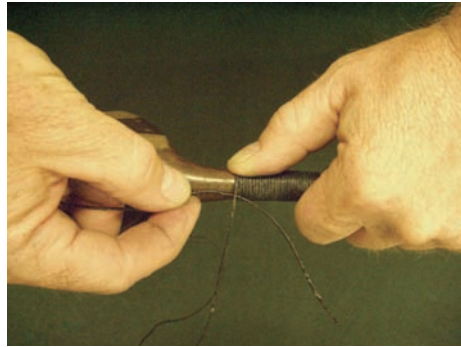
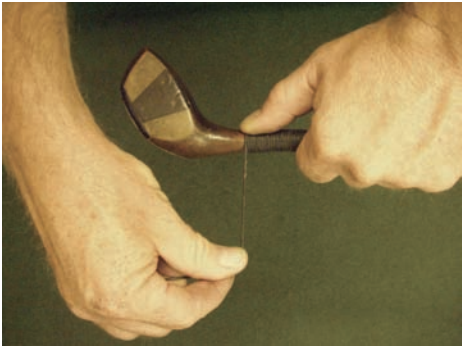
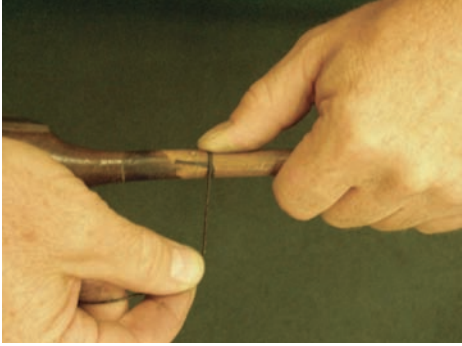


Wrap the leather grip so that the edges butt up to each other.

Whipping

Whipping is used to finish off the bottom of the grips, as an option for securing the top of the grip and as a structural support for the neck of your wood headed clubs. Whipping can also be used to repair cracked shafts and as insurance against breakage on any areas of the shaft that look questionable in terms of durability. Many people do not realize that the whipping on the neck of their wood headed clubs is necessary to prevent the neck from splitting during impact with a golf ball. A persimmon headed wood has a taper leading up to the insertion point of the shaft and the neck is tapered so that it is eventually just paper thin at the point where the shaft goes into the neck. Thus the whipping secures this fragile tapered neck from splitting when contact with a golf ball is made. If the

Repairing Your Wood Shaft Golf Clubs



Loop the twine over itself and start wrapping. After about 10 wraps, cut the extra twine flush with the finished whipping. Continue whipping, pulling the twine firmly as you go. Loop the end of the whipping up and under the finished whipping. Wrap over this loop for the final 10 wraps. Pull the loop tight. Cut the extra whipping with a sharp razor blade. Your whipping is complete!

Playing Hickory Golf

whipping is loose or missing, the force from just one or two swings into a golf ball can split the persimmon head and cause permanent damage to the club. So, never hit a wood with loose neck whipping!

So let's look at actually whipping a club. The tricky part is the finish; but we shall start at the top and work down. We are going to wrap over a 1" long section of whipping at the start, so put the first inch of whipping pointing vertically down the shaft and then make a 90-degree turn and circle the shaft, wrapping over the starting section of whipping.

Keep wrapping around and around and after 10 circular wraps, cut any extra whipping that you are wrapping over flush with the circular wrap. Now continue whipping until you get 10 wraps from the bottom and then stop.

Cut the whipping so you have three feet of whipping to finish. Take the end of the whipping and put it parallel to the shaft, pointing up, across the whipping you have already wrapped. Now wrap OVER that piece of whipping for the next ten wraps, being careful not to get tangled up and then pull the loose end to tighten the last loop, being careful not to bind or knot the whipping as it is being pulled under the ten loops.

Now cut the loose end flush to the circular whipping by inserting a sharp razor blade in between and parallel to the wrapped strands of whipping and pressing against the wood until the extra thread is severed.

This is the basic technique, which will work well for the wood heads. The grip whipping only over wraps just a few times but the technique is the same. Nylon coated whipping was used in the '50s, '60s, and '70s, but was unknown in the 1920s. Linen whipping coated with pitch or wax is the most authentic. Many leather stores will carry rolls that will work quite nicely for hickory restoration. Note that the whipping was generally thicker in pre-1900 golf clubs. We usually carry several different sizes to match the different eras.

Resetting a Hickory Shaft

This is one of the most common repairs performed on a hickory club and one that is essential in ensuring the long life of your hickory shaft. Virtually all original hickory shafted irons have had the heads work loose over time, and the few that are still tight should be reset anyway if you plan to play them because repeated play will loosen them as well. Hitting a head that is just very slightly loose will put a lot of additional pressure on the shaft tip, which is already a structurally weak point, and will sooner or later break the tip. Just hope you are not hitting over water when this happens!

All hickory clubs are pinned just below the top of the hosel and generally the pin runs parallel to your shot direction. Some pins are very difficult to see and you may try carefully scraping away some surface oxidation with a razor blade to reveal the pin's location. Look about 3/4" down from the top of the hosel with the club laying face

down on a bench. You can also try heating the hosel to see if any smoke may reveal the pin opening—use wetted tissue around the shaft to prevent burning the wood. A magnifying glass may help. If worse comes to worse and you have no idea where that pin is, you can find the likeliest location and tap that position with a 1/8" punch and small hammer. If you are correct, the tap will break loose the pin so you can spot it. You obviously may have to try several locations. Don't hit too hard or the hosel could be badly damaged. Slight dings will be filed away when the new pin is installed.

Once the pin is located, use your 1/8" punch and hammer the pin until it protrudes out the other side, then pull it out with vice grips. Normally the shaft will just fall out at this point. You will be re-installing the shaft the exact same way it came out, so I wrap a piece of 3/4" masking tape around the bottom of the shaft and mark "top" and use arrows to point to the pin location on each side so I can get the shaft back in exactly as it came out. Some heads still fit tight and a mild blow along the top edge of the club with a rubber hammer will knock the head right off.



Playing with loose hickory shafts can lead to erratic shots!

Of course, if the head was epoxied in place recently, you will need to use a torch applied to the hosel in a rotating fashion, to melt the epoxy to remove the head. Use a wetted tissue or toilet paper to protect the wood just above the hosel. Once the head is off, you clean out the inside of the clubhead with a round file. Often dirt and old whipping thread previously used to tighten the head will come out.

Use a razor blade to scrape away dirt from the shaft tip. Examine the shaft tip for cracks. Many shaft tips have some sort of crack and these can be salvaged for play



Wayne Aaron demonstrates the value of a tight shaft and clubhead connection, extracting his ball from a particularly difficult lie in the rough at the Sand Hills Club in Nebraska.

although you would love to have a totally perfect shaft tip. It is not wise to try to save some badly cracked shaft tips because the cracks run a long ways up into the actual shaft and will most likely give way within a short time.

Moderate shaft tip cracks are best fixed separately by using very watery furniture glue used to repair wood chairs that can be run into these small cracks to seal them before you glue the shaft back into the clubhead. Once any shaft tip cracks are repaired, epoxy the head to the shaft using a shafting epoxy or two-part epoxy that works on metal and wood and has a strength rating of 2000 pounds per square inch.



My irons have all the heads re-epoxied and re-pinned for years of trouble-free play.

Make sure the shaft is lined up just right and that air pressure does not push or lift the clubhead off the shaft creating a separation between shaft and clubhead. I use some masking tape to pull the two parts together and hold them there; you could wedge the clubhead against something (don't tip or angle the shaft) or put some other weight down on top of the club. Have the head at the top as it dries so that epoxy flows down to seal the shaft/clubhead union.

We use three different types of 1/8" rod for shaft pins: a soft (cheap) steel welding rod for the majority of pins, an aluminum rivet for the stainless heads, and a brass rod for that rare instance when this might be appropriate.

Once you have a pin cut so that it protrudes about 1/16" past each side of the hosel, use a 1/8" drill bit to remove dried epoxy from the pinhole and insert the pin. The pin can be inserted as the glue is drying if the fit is very good. Now lay the backside of the pin down against the flat side of your vice and hit down from the top, flattening the pin against the hosel.

This is where the skill comes in for if you peen too much metal you will actually flatten the hosel (undesirable!) and if you peen too little metal, you may have a small opening still visible in the pin's hole. I will peen once, grind excess metal away, and peen again and grind again so now I have a perfectly round hosel with just a very small amount of metal that I hand file with a mill bastard file and then use a cloth backed sandpaper in 150 or finer grit to blend it all together.

This whole pin operation takes less than five minutes for the experienced clubmaker. But this is where so many novices have taken the opportunity to virtually destroy their clubs! It is a good idea to practice on several less valuable clubs while you are honing and refining your skills.

Reshafting

Reshafting can be difficult because there are so many different tip sizes. Say you break the shaft on your favorite club right at the hosel. You are going to need a new shaft or another vintage shaft. We buy clubs just for their shafts. Often an inexpensive head has a great, vintage shaft that can be put into a better head. The problem is that many shafts have too small a tip for too loose a fit; others may be too big but these can be sanded down to fit correctly.

Use your dial calipers and measure the shaft size right where it goes into the head—or measure the top of the hosel size, which should be very similar. Now make sure your prospective shaft will work, most do not. Make sure the shaft is long enough as well; I only like to lengthen a shaft about 1 1/2", possibly 2" at the very most, otherwise if it is lengthened any more than this, it will not hold and will break off (unless you undertake a splice attachment repair). It is best not to lengthen it at all though a 1/2" or 1" lengthening is not a problem.

If a shaft has a lot of extra length, it is best to save these for the longer irons as these are the very hardest to find, plus the shafts taper as they go down so a really long shaft won't work well in a short club anyway. You will want to check shaft flex before you choose your shaft to make sure it is appropriate; we use a frequency analyzer to get our shaft flexes exact and you can refer to the charts in the custom fitting section so you know exactly what you are looking for.



*Installing a hickory shaft
in a clubhead.*

Playing Hickory Golf

Again, a shaft that is too stiff can be easily sanded down to the exact softer flex that you prefer. New hickory shafts are also being lathed out by some individuals, but for several reasons they are not quite as good as vintage originals, which should be your first choice. The freshly lathed shafts are newer growth hickory, which is not quite as strong, and the wood is sectioned out when it is cut and not split down the grain line like premium vintage shafts.

New hickory shafts can play very well though, and sometimes this is the only option, especially in long irons or if you want an “X” flex. Look for lathed shaft turnings that have the grain run the entire length of the shaft or, lacking that, run most of the length of the shaft. Once you have selected a shaft and worked it down so it fits in the tip, you are ready to epoxy and pin the shaft in place—remember it only fits one way!

Changing Length

We touched briefly on this before, but basically it is quite common to have to extend a hickory club from 1/2” to 1” to make the weighting and length work in your set. A club that is 1/2” short will be three swingweights light and a 1” short hickory club will be six swingweights light. Conversely, a club 1” too long will also be six swingweights heavier.

That means if you find a great looking mashie but the swingweight is only C-5, check the length. Often this 36” club fits into your set at an ideal length of 37”, and so if you extend it 1”, your swingweight will be D-1, which is excellent!

We lathe out our wood shaft extensions, which are generally a one-piece hickory plug with a tip that extends 1 1/2” into a drilled hole in the original shaft’s flattened end with an air pressure “seep hole” of 1/8” at the bottom of this hole. We often use vintage broken shafts to produce our extensions, but a 3/4” wood dowel from the hardware store will work well and it doesn’t have to be hickory. If you notice, the top of the shaft has a rounded profile to it and this is done so that the tip of the shaft rests on the bottom of your bag, leaving the edge of your grips raised up about 1/4” so that your leather grips don’t get chewed up. Always put this radius on the top of the shaft for your grip’s protection when you are finishing the top of the shaft or shortening a shaft.



A hickory extension plug. This lathed piece can be used to extend a hickory club up to two inches.

Straightening a Warped Shaft

In the past, we straightened warped shafts by using oil and a heat gun, but we have found a better way that is much simpler. First, though, you must determine if the shaft is even worth straightening. Some shafts have bends that go in several different directions, and, of course, that is most likely the direction of the grain of the wood; these shafts will tend to warp back. Badly bowed and really flexible shafts are best discarded or just used in clubs that are for display purposes only.

Often some really excellent shafts were purposely bent backward just below the grip, the “St. Andrews bend”, to help their playability. I would recommend playing these purposely bent shafts to see if you like them; I had a great spoon one time with a nice St. Andrews bend that I took out to play, hitting it to 15 feet and making birdie from 235 yards out on the toughest par 4 on the course, only to come home, straighten the shaft, and never hit it well again! My old Wilson Wilsonian driving brassie had a double bend down near the head and I just left it because it worked well just as it was.

Usually though, the clubhead does not return consistently to the ball with a warped or offset shaft. I had a very nice niblick with a mild bow that I was shanking about three times out of four when I was testing it so I had a friend of mine who was quite a good golfer try it and the first thing he did was shank it!

Most slightly to moderately-bowed shafts can be straightened in just a few minutes by using a rounded notch on a top edge of a wooden bench and work the shaft back and forth against the bench pushing at the same time in the opposite direction of the bow. The back and forth sawing motion of wood shaft against wood bench creates ample heat to return the shaft to straight. You will want to press fairly hard in the direction you need to straighten the shaft to get good results. The hickory shaft will bend a long ways before it will break, especially when warm.



*Straightening a warped hickory shaft.
Note the slotted groove cut in the bench.*

Deepening Your Grooves

Sometimes you will have a nice iron that just doesn't spin enough when it hits the green. If the club is line scored, you can use a re-groove tool and simply make the grooves deeper; if the face is dot punched, use an appropriately sized drill bit to deepen each dot punch just slightly. This usually raises an edge around the dot punch mark, which will really spin your ball (and probably take some chunks out as well) so you can sand or file these raised areas down.

Remember, though, the more spin you generate, the lower the ball will tend to come off the head. You can make your grooves as deep as you want; there is no limit to groove depth in hickory golf. Once, I took a nice line-scored niblick and put some really sharp, deep grooves into the club and brought it to the golf course.

I had a 90 yard shot from a perfect fairway lie and hit it really crisply from a slightly downhill lie watching intently as my ball hit the middle of the green and absolutely took off, spinning some 50 feet off the front of the green and down an embankment. With my jaw fully dropped, I gazed down at my clubface and saw massive chunks of my ball's cover imbedded in the grooves.

You can always play a regular deep groove hickory club, which doesn't seem to hurt a golf ball all that much. Benny Sayers of North Berwick in Scotland introduced these deep groove clubs in late 1913, but war broke out the next year and Sayers never really got the recognition for this that he deserved. Jock Hutchison made these deep groove irons famous, winning the 1920 PGA and 1921 British Open at St. Andrews with them. Apparently, Jock was playing too well; the golf world banned them in 1922.

Loft & Lie Adjustments

Loft and lie adjustments are made to your hickory clubs just like you would do to a nice set of modern forged irons. The hickory shafted metal heads bend quite easily except for the clubs made out of aluminum like the William Mills Standard Golf Company putters and woods. These cast aluminum clubs will just snap in half like a pretzel, so don't attempt any bending on these types of heads. Spalding, Wilson,



Loft and lie angle adjustments are usually necessary to fine tune your hickory clubs.

and MacGregor, as well as a number of other manufacturers commonly used cast aluminum in mallet-style putters.

Stainless iron and putter heads will take a little more effort to bend, but they will be OK to bend as will the “gunmetal” or bronze heads commonly seen on circa 1900 putters. As a general rule, not too many clubs will be able to be strengthened for loft, except putters, as this will create the dig sole angle that we talked about earlier which is tremendously detrimental to playability.

On the other hand, most clubs will play even better with some added loft, especially the niblicks where your approach angle into the ball is steeper. The added loft adds bounce angle, improving playability. Some bending bars are not big enough around to fit the larger hickory hosels, so find one of the larger bending bars. Also some loft/lie machines clamp the shaft to measure the lie angle and because of the strong taper of the wood shaft as it flares out wider to meet the hosel, the lie angle reading will not be accurate. Also, you must take into consideration any “St. Andrews bend” or incidental bowing of the shaft that will affect your lie angle as well. In the custom fitting chapter we will talk more about actually testing for correct lie angles.

Refinishing & Re-Weighting

A high percentage of hickory shaft woods do not have enough head weight. Many swingweights are in the B or C range when optimal playability is often about D-2. Extremely stiff shafts can feel better in the D-3 to D-5 range, while really flexible shafts may seem ideal at C-7 to D-0. Of course, individual preference is very important as some people prefer a heavy club head and others prefer a very light feel in the head weight.

As a general rule, most regular and stiff flex players will perform best with a swingweight close to D-2. Woods that have a soleplate are easiest to weight, especially a soleplate that covers most of the bottom of the club. It is best to have test hit the club first to check for trajectory and any hook or slice tendencies, as this will determine where you place the weight. Also, make sure your final length is correct and you have already installed your new grip.



The right swingweight will optimize your touch on the delicate shots around the green.

Determine the amount of weight that needs to be added; every swingweight is two grams, so if you are starting at C-3 and want to go to D-2, that is nine swingweights or

Playing Hickory Golf

18 grams. We use a small digital gram weight scale, a 57-gram spoon and lead shot, or non-toxic bismuth, which we like at Classic Golf. Fill the spoon with lead shot until it reads 80 grams ($57+18=75+5=80$; the extra five grams will make it easier when you are pouring the melted lead to get the final weighting correct).

Now, remove the soleplate, noting which individual hole the screws came out of, as you will want to replace them into the same hole when you are finished, otherwise they will not fit flush to the soleplate. Examine your potential areas in which you can add weight. The best places to add weight are low and to the rear. A deep hole near the face would be the worst possible position because it will raise the center of gravity so that none of your shots will feel solid or go very far.

When the weight is added very low and to the rear, the center of gravity is lowered making the club “more forgiving” to use a modern term, and producing very solid feeling, high flying shots with maximum distance potential. If the trajectory is already a bit high, a round hole in the center of the club that is medium deep (no more than 1/2 the top to bottom depth of the head) will produce a solid feeling shot that is slightly lower. If the club hits too low, get all the weight to the rear and keep it as low as possible.

If the club hooks, drill a hole that angles out to the toe side, trying to keep it as shallow as possible. If the club slices, do the opposite—drill a hole toward the heel. If you want some perimeter weighting or need a great deal of weight, drill both the heel and toe holes.



Dial in the heel and toe weighting on your woods and you will impress your friends with your straight driving!

overflow can take a while to whittle down. Let the lead cool for a while before you “peen” it with a hammer and screwdriver to lock it in place (if you had a lot of overflow, you won’t have to do this).

Don’t try to peen the lead before it has cooled unless you are going for that James Bond arch-villain facial look. Some clubs have no soleplate with just a slip under the front edge of the face. These clubs are best weighted through the weight port on the

A dremel tool can be helpful in creating just the right size cavity to hold your weight. Visualize the mass of weight that is in your spoon and size your cavity to hold this amount of melted lead. Put some small drill bits into the empty screw holes so no overflow of lead will accidentally get in these holes. Fire up a propane torch and melt the lead in the spoon and then pour it into your weight ports.

Try not to get too much overflow as it can run down the sides of your club and burn the finish, plus you will have to scrape or sand away any excess lead so that the soleplate will again fit flush. Too much

overflow can take a while to whittle down.

Let the lead cool for a while before you “peen” it with a hammer and screwdriver to lock it in place (if you had a lot of overflow, you won’t have to do this).

backside of the clubhead, which is quite a bit more difficult to work with than adding weight under the soleplate.

You will need to drill out the old lead, deepen the cavity, form a dam with plumber's putty and pour a lot of extra lead to accommodate the rounded shape of the weight port. It generally is not too effective to pour twice or add to a half finished lead weight port—there is not good bonding between the two separately poured lead pieces. The skill part of this job is the finish filing and sanding, leveling the weight port down to the correct dimension without damaging the wood around the weight port. Work carefully.

If your swingweight is too light when you finish, start all over again. If your swingweight is too heavy, take a small diameter round file and file a groove in the lead weight port. This can take away as many as five swingweights while still looking quite good. You will see many old hickory clubs with this rear weight port groove. Irons can be weighted with lead tape, although I don't like to do this myself, because I like to look at the original stamps. You can test play your woods at different weights using strips of lead tape attached to the rear or sole of your wood club to determine where you may like to place the weight and how much you might want to use.

Once your club is weighted properly, you may want to refinish it or at least clean it up and give it a coat of shellac to protect it from moisture. In the 1980s, I refinished hundreds of wood clubs using a costly and time-consuming method involving high gloss polyurethane. Once I had sanded the club, etched out the stamps, applied filler, a stain, a sealer, and six coats of polyurethane, I let the club sit for two weeks while the polyurethane hardened. Then finally the golfer could take his club out and invariably run a high speed swing right underneath the ball taking a nice divot out of some sandy soil and leaving skid marks across the top of the brand new refinish.

Fortunately, those days are gone, and we have much simpler, more effective means of "refinishing" a golf club. First of all, those high gloss finishes popular in the 1980s were never used in the 1920s, so we will be using shellac instead of polyurethane. The most complex refinish can be as simple as scraping off the old shellac finish with a razor blade (and often this isn't even necessary), staining the club with an oil base stain (we use Minwax Wood Finish), and applying shellac (we use Zinser Bullseye Shellac in a clear spray for the heads). The whole process can take less than a half hour and you can play the club later that day! When you scrape up the top edge, you can take #0000 steel wool and lightly buff the entire head, then spray again with the shellac.



Fully restored hickory shafts will make you proud to own and play a fine set of hickory clubs.

Refinishing a shaft is similar. I will often use #150 grade sandpaper, stroking in a lengthwise motion to get out any major dings, and then apply a thick coating of “Gilsonite”, a tar-like substance which puts the dark color into the grain of the shaft, which I will wipe off the shaft right after I have put it on. The shafts look great like this, and you can now apply Zinser Bullseye Shellac in an Amber color for the final touch. Pat Kennedy of Vermont came up with this little shaft recipe and it works great! A couple of coats of shellac should be sufficient to seal the shaft. I like to take #0000 steel wool and lightly buff the shine off the shafts and heads that I have put shellac on so that they have a more vintage look. In another option, you can also use dark tung oil, which needs to dry for a day or two after being applied, if the shaft needs extra moisture. Rob Ahlschwede, when working with a fresh piece of hickory, will first apply a coating of Minwax Stain in “Provincial” color to soak deep into the grain to bring out the color; when he is done, it looks just like a vintage shaft from the 1920s!

Most hickory era iron heads are not chrome plated, but are just bare metal like a Cleveland RTG sand wedge or Titleist Vokey Raw sand wedge. Chrome plating didn’t become popular until around 1930 as did the “Stainless” heads forged of rustless or stainless steel, though a few companies were experimenting with various corrosion-free alloys earlier than this. These raw metal heads are susceptible to extensive oxidation if they were not stored correctly and you may find yourself with some pretty crusty looking clubheads at times.

A soft wire brush or Scotchbright® pad can remove heavy rust but one of the worst mistakes you could make is the use of too stiff a wire wheel which can permanently damage a soft metal head with deep scratches. For mild to moderate oxidation, I use #0000 steel wool and some light oil to work the surface oxidation off the head. I prefer a dark patina on my irons and so I don’t try to remove anything other than the reddish color oxidation, leaving the darker color. Some players prefer a more “new” or polished look and so a little extra effort with a Scotchbrite® pad will achieve this look. You can polish the head to a high chrome-like look if you wanted, but there is some performance advantage to a stronger patina as this grittier surface will give the ball just a bit more spin as it comes off the face.

When I reset the shaft on a club with a very dark patina, there will be a small patch of shiny, sanded metal around the hosel pin; you can either blend this more polished look with sand paper down the hosel, or just leave it and if you play enough, it will blend nicely back in about six months to a year. There are chemical oxidizers for producing a darkened patina on lead, aluminum, brass, and bare metal, but I generally don’t use them on any play clubs, as they will patina soon enough if you have them out in the elements.

Bulge & Roll on Your Wood Heads

Wood club heads have a “bulge”—a curved radius from heel to toe that makes your shots go straighter. This was discovered in the late 1880s and is generally seen in



The flat face on this driver will make shots hit off the toe hook too far to the left and make heeled shots slice too far right. This driver face must have the correct 10" bulge to produce a tight shot pattern.



Adam Mednick of Sweden knows the value of the correct bulge on his hickory driver face. Adam has competed on the European Tour and played in the 2007 Swedish Hickory Championship.

clubs from about 1895 and on. It works like this: let's say everything about your swing was just perfect, and the only error you made was that you hit the ball off the toe of your driver by about 3/4". Upon impact, the clubhead would twist open, imparting a clockwise spin on the golf ball. The ball would start straight and hook left into the rough—which hardly seems fair for such a minor miss! A similarly heeled shot would start straight and slice into the right rough. Well it was discovered that if you curved the face, the toe shot would start to the right and hook into the CENTER (yes!) and the heeled shot would start left and slice into the center!

This bulger face design was fairly quickly accepted as THE way to produce a straight hitting wood club because it was so easy to prove by just hitting some golf balls purposely off-center and observing the results. Trial and error soon revealed that a circle with a 10" radius was about the perfect face curve for a driver and fairway woods performed better with a 12" radius. Too little face curvature, and toe shots would hook across your line to the left and too much face curvature and your toe shot would just stay too far right.

This fact tremendously affects our modern hickory club's accuracy as many potentially playable hickory clubs have a bulge that is not correct, either from a production problem or more commonly from wear over the decades to the heel and toe and subsequent refinishing and re-facing that may have taken place which has altered the original face specifications. Often a little work to get the bulge exactly right on a hickory driver face can change the club's accuracy from an erratic scatter pattern to a consistent and predictably playable pattern that can noticeably improve your scoring!

Let me give you a real life example of this. A hickory-playing customer of mine traded in a nice looking Tom Auchterlonie driver to me saying vaguely that it hit good, but just was not very consistent. I checked the club out closely after the trade and it had a fantastic stamped "T. Auchterlonie" "St. Andrews" "Special" shaft (back when "Special" actually meant Special!) that was perfectly straight without any wear or damage and it was an "X" flex—exactly what I want for myself! The head was not large, however with only a

Playing Hickory Golf

1 3/8" depth, about standard for the pre-1930 era. The swingweight was a little too light at C-7, especially for a really stiff shaft. There was no soleplate so adding weight would be a bit time consuming and I wanted to test play this club right away, so I added some lead tape along the back to bring the swingweight to D-3 and off I went to the golf course.

I made a good swing on the 1st hole and the ball faded about 15 yards, even though all the weight was very neutrally placed. I adjusted the lead tape more to the heel side and just bombed the drive on the second hole, very long and straight—I was ecstatic! I had always wanted a Tom Auchterlonie driver for my set because of the family history and the great Auchterlonie shop that still exists at St. Andrews, near the 18th green of the Old Course, with its original hickory era workshop still intact in the back of the store.

My elation was tempered however by my next drive which sliced badly right and ended at least 40 yards right of my intended position. This happened again in my nine-hole test play with this driver. I see why it was traded in—these were extreme misses for my game, certainly shots that would cost you dearly in any important round.



John Roth and I examine one of Bobby Jones' clubs in Gullane, Scotland. The bulge and roll were excellent!

I put the radius gauge to the face when I returned to the shop and there was a bump just to the toe side of center that fell away quickly to the toe side so that any shot hit about 1/2" or more to the toe side would end up way right! I re-contoured the face

so that the bulge was a consistent 10" radius from the heel to a point 1/2" from the end of the toe, where it then fell away dramatically—this gave me a little more than 1" extra toe side area where the bulge was perfect, more than I would need. A bad toe side miss of say 1/2" to 1" should now swing back into play. Indeed, when I test played the club the next day, my pattern was predictable and excellent. That was the fall of 2005, the next spring I played the Auchterlonie driver at Tad Moore's tournament at The Fields Golf Course in LaGrange, Georgia and shot a 67 the second day! It pays off to get that bulge just right.

The "roll" on a clubface is the vertical version of the horizontal "bounce". There is not a really good reason to put a vertical radius on your wood face, other than the look will be consistent. I prefer little to no vertical radius because what sense does it make to hit a thin shot any lower than it is already going to be? You will just lose more distance. Or what sense does it make to hit a fat shot any higher than it will be? A strong vertical roll of say a 10" radius on a driver will produce a very inconsistent trajectory with a slightly thin hit going too low and a slightly fat hit going too high.

Changing the roll to a 14" or 16" radius maintains a nice look and improves playability. On my personal woods, I will generally have no roll from the center of the face down and a mild 16" radius from the center to the top, which will aid me in getting the ball airborne on thin hits and getting a little extra height when I'm trying to take advantage of the wind or going over some trees.

Changing Wood Head Loft

Sometimes a driver just has too little loft; this was common on many hickory clubs as pre-1900 drivers usually had a combination of around five degrees of loft and a very whippy shaft, which achieved a very nice trajectory. As stiffer shafts became the norm in drivers, many heads were still produced with the traditional lower lofts. These clubs are generally in great shape today, since no one could get them to go up in the air and they consequently had so little play. You won't be able to get it up in the air either, but with a little added loft, some of these can play great.



Test hit drivers with different lofts to find the right one for you.

Each club is different, so that one eight-degree driver could hit a high ball, and another 10-degree driver could hit an ultra-low bullet. Try to do all your trajectory

adjustments with your weighting first, and as a last resort, file the loft of the face to fine-tune your trajectory. Only a very small amount of filing is necessary to significantly change your loft and trajectory. Better to go slow with numerous testing sessions on the golf course (don't test with range balls—their trajectory is different) than to destroy your club with a little over zealous filing.

You can use the adding of loft to more precisely tune both your bulge and roll as well. Once in a while you may have to take some loft off a club so that you may now be filing away on the metal soleplate. When you are done, make sure you bevel the leading edge of the soleplate so that it isn't too sharp.

Adding an Insert to a Wood Head

With a lot of play, you can chip away sections of your wood face and you may consider a face insert to extend the playing life of your club. Leather was a common face repair in the late 1800s and fiber was popular in the early 1900s. Both materials are light and will not have an effect on playability. Heavier metal inserts raise the center of gravity producing a lower trajectory, less solid feel at impact, and shorter driving distances. I don't like to install face inserts because I like my clubs to look as original as possible, plus it is quite a difficult repair, best achieved with an insert router, which few repair shops were ever equipped with in the first place and which nearly all manufacturers have gotten rid of.



My pre-1900 Forgan driver has held up wonderfully after face treatment with a liquid glue.

Instead, I will use the excellent liquid glues that will run like water into fissures and small hairline cracks to seal them and make the club sound for play again. There are also gap-filling instant glues available to repair areas with missing wood. I have an original Forgan brassie from about 1885 that I have used to win several National Hickory Championships and in 2004 it was looking like it was ready for retirement with multiple hairline cracks in the head and in the face.

After some extensive treatment with "Wonderlok 'Em" Loose Chair Repair instant glue, I have been able to play numerous rounds over two seasons with this club, including my victory at the 2007 National Hickory Championship, and the club looks fantastic with no signs of any problem! Some hickory era woods had inserts to begin with, chiefly the numerous fancy face models from

the 1920s. If you anticipate the potential need for an insert (you play a lot, or like to hit a lot of practice drives, and hit balls all over the face), you can look for a fancy face club that will be able to handle more play.

Remember to pull the insert and epoxy it back in place for your best playability. A lot of these inserts are held in place by angled wood dowels that can be removed by carefully prying the insert out at the angle that the dowels are inserted at. If an original insert is fairly tight to start with, use the watery instant glue, but take care not to let the glue run over your clubhead's finish which can damage it. If you find someone capable of installing an insert, choose a lightweight fiber material, as you do not want a heavy, front weighted golf wood. Pour-in-place inserts are light and easy to install but do not look vintage. You can decrease the need to use an insert by not hitting range balls or by using a second string driver to bang balls at the range (it could be a persimmon head & steel shaft) and by playing soft cover or low compression golf balls on the golf course.

Care of Your Wood Shaft Golf Clubs



The "salty" air at seaside links courses, like Crail in Scotland, is especially hard on the wood finish of your hickory golf clubs.

Wood shafts are susceptible to moisture damage, so it is very important to preserve the correct moisture content of the shafts. When a hickory tree is first cut down, the wood has too much moisture in it to make an ideal shaft and so in the old days, the shafts were left to dry for a year or two while the moisture dropped to an ideal level. If

Playing Hickory Golf

the moisture content gets too low, the shaft loses strength and that is no good either. A coating of shellac preserves a shaft's moisture balance, not allowing extra moisture to enter the wood's pores and not allowing the shaft to dry out either.

Shellac is an excellent shaft sealer that does not soak into the wood thereby changing the moisture balance. The shellac remains on the surface, preserving the hopefully ideal balance of moisture within the shaft. I will usually apply an extra coat of shellac to my shafts at least twice a year. When you see shaft wear that looks like it is through to the wood itself, it is time to shellac the shafts. You can spray on one or more coats or brush on thicker amounts, either way works well.

The salt in the air near seaside links is especially hard on shafts and if you get in the rain, this eats away the shellac finish very quickly as well. Since most clubheads during the hickory era were raw, unplated metal, surface oxidation of your clubheads is also an issue. Always store your clubs in dry condition. If you have played in the rain, dry the clubs thoroughly to prevent rust before putting them away.

Mud on the clubface traps moisture and is another no-no. Make a habit of wiping off mud and debris and drying your club after each shot on the golf course with a towel that you carry with your golf bag. There are leather conditioners for your grips that can make even 100 year-old leather grips feel fairly good. I will re-apply a fresh coat of pine tar if my rough side out leather grips feel a bit too dry.



I always make sure my woods have a good coating of shellac.

Store your wood shaft set somewhere that is temperature and humidity controlled. The trunk of your car can be a poor choice as many trunks get exceptionally hot during the summer months and this can melt the shafting epoxy, damage your shafts, and cause even more damage once the clubs are then played. Bring the clubs indoors where temperatures are fairly constant. A cold garage during the winter is also no good.

Some players prefer to store the clubs horizontally on the ground, although I think it is OK if they are in a bag leaning against a wall. Your bag can get wet during play and when this happens, remove all the clubs from the bag until the bag dries to prevent the moisture going from the bag to the clubs. With a little common sense care, your hickory set can easily last a lifetime.



James Braid
Open Champion 1901, 1905, 1906, 1908, 1910.

CHAPTER 4

Custom Fitting Your Wood Shaft Golf Set

In custom fitting your wood shaft set, we will look at these specifications: length, lie angle, shaft flex, loft, grip and grip size. Basically, anything we can do today in custom fitting can also be done with your wood shaft set.

Length

Hickory shaft niblicks from the 20th century are normally 36" long. This is longer than the equivalent wedges from today which are generally around 35 1/2" in length. Hickory era leather grips extended down the shaft from 12" to 13", while modern grips only go down a little over 10". That means that a hickory iron, loft for loft, is not only a bit longer than a modern iron (if both are "standard"), but you can also go further down the grip as well—by about 2" more! It is obviously a cost saving measure to terminate a modern grip's length at 10 1/2", but this wasn't so much the case in the hickory era.

From a fitting perspective, we normally fit modern irons at 1/2" over standard length when a player is 6'2" and 1" over standard length when a player is 6'6" (most of your adjustments to different body sizes should first be lie angle adjustments). So with hickory clubs, extra length is not required until a player is 6'6". Of course, we are speaking in generalities, some players have been successful at a length that they would like to reproduce in their hickory set and that is fine. While most hickory shaft niblicks are 36", mashies, for example, might be anywhere from 36 1/2" to 38" as they were shafted by clubmakers from all over the world for who knows who. As a result standard hickory shaft length will work for 90+% of hickory players (though you may have to alter most of your clubs to bring them to "standard") and most of our adjustments are going to come through lie angle.

Lie Angle

We shall fit lie angle with our wood shaft set just like we do with our modern set. In fact, if you know your lie angle specifications on your modern set, you simply adjust

Playing Hickory Golf

your hickory set to match. Remember, you are matching a specific lie angle to a specific length. It is only somewhat helpful to say “two degrees upright”. Two degrees upright of what? And how many degrees do you increment between clubs?

Some manufacturers have their 35 1/2” clubs set at 64 degrees, but others are at 63 degrees and some are at 65 degrees. Some manufacturers increment one degree for each 1/2” of length change, while others do 1/2 a degree and still others 3/4 of a degree between clubs. Two “standard” lie angle sets both with a 64-degree wedge could be two degrees apart by the 3 iron because one company increments in 1/2 degrees between clubs and the other company increments in full degrees. They do this because individuals are all different, some people need 1/2 degree between clubs and others need one degree between clubs. I have found that most people increment 3/4 of a degree for every 1/2” of length change.

You need to know what your lie angle is for your 39” club in a specific number of degrees, such as 60 degrees. You can test for this by hitting balls off a rubber mat that puts a mark on the location of your club’s sole when contact is made with the mat during your swing. This is called “dynamic fitting”. The mark of rubber on the bottom of your club should be in the middle of the sole, not near the heel or toe.

If the mark is near the toe, the club is too flat. The toe will catch the turf before contact with the ball is made, opening the face, and sending your shots to the right. The shots won’t feel solid either, because the toe hits the turf before you can hit the ball, making your shots feel “fat” or “heavy”. Many, many players have hickory clubs that are too flat for them. Players were a bit shorter 100 years ago and consequently, their ideal lie angles were flatter. At 100 yards, if your shot is 15 feet to the right on a good swing, your lie angle is one degree too flat. Two degrees too flat, and your shot is 30 feet to the right at 100 yards and 45 feet to the right at 150 yards! A good player can tell when a club is 1/2 a degree off (about eight feet at 100 yards) and will want all his lie angles within 1/2 a degree of ideal on all his irons.

With a knuckle to floor or fingertip to floor measurement, a player can get a good sense of approximately where his/her correct lie angles will be. In golf shoes or other shoes about the same height, an “average” person with fairly average length fingers will measure 28” from the tip of his longest finger to the floor. This correlates to standard lie angle. For every inch going up, you need a one degree more upright lie angle and for every inch below 28”, you need a one degree flatter lie angle. So 30” would be two degrees upright and 26” would be two degrees flat.



Claes Kvist plays his hickory set in his native Sweden.

For players that swing dramatically over the top, and there are more than a few of those, your lie angles will dynamically test at a much more upright lie angle than if you were to swing perfectly; so now you must decide whether to fit lie angles for your potentially good swing or for your over-the-top swing.

Wood shaft era iron heads are very adjustable for lie angle and virtually any conceivable specification can be

accommodated. Start with a fingertip-to-floor measurement to get a ballpark idea of where your ideal lie angles will be. Then dynamically test your actual completed hickory irons, one at a time, and set the lie angles to where it looks like they should be. Now test play them on the golf course, noting any unusual shot dispersion patterns. Say all your mashie shots go a little left but your other clubs are all fine, so you will flatten that mashie just a little (1/2 a degree is eight feet at 100 yards) and test it again until all your clubs are satisfactorily dialed in.

Shaft Flex

Shaft flex is extremely important in playing your best hickory shaft golf and the following charts will help you find your correct flex. You will need to check your swing speed on a swing analyzer or launch monitor and your hickory shaft flexes on a frequency analyzer. You can use a modern driver and/or five iron as well as a hickory driver or mashie iron (38"), either way will work.

Once your shaft flex is determined, we will match that to the hickory shaft frequency that is ideal for your swing speed. Shaft frequency is a very exacting method of determining a shaft's flex, able to break an individual flex down into 20 increments of flex and correlate all of your club's flexes together so that a chart can be made to show you exactly what frequency each one of your hickory shaft clubs should ideally have. My personal set has all the clubs to within a 1/4 flex of each other or to within five cpm (cycles per minute) on a frequency analyzer.

43" Steel or Hickory Shaft Driver

MPH	FLEX
70-80	A
80-90	R
90-100	S
100-110+	X

Modern 5 Iron or Mashie Iron

MPH	FLEX
60-70	A
70-80	R
80-90	S
90-100	X

Modern 45" Graphite Shaft Driver

MPH	FLEX
75-85	A
85-95	R
95-110	S
110-120+	X

HICKORY FREQUENCY CHART in CPM

Length	X	S	R	A
43"	310	290	270	250
42"	320	300	280	260
41"	330	310	290	270
40"	340	320	300	280
39"	350	330	310	290
38"	360	340	320	300
37"	370	350	330	310
36"	380	360	340	320

You may wish to copy this chart and post it next to your frequency analyzer.

Let's say your modern 5 iron swing speed is 80 mph, you would be halfway between R and S flex, and 280 cpm would be your ideal frequency for your 43" hickory driver and 330 cpm would be ideal for your 38" hickory iron, which is normally a mashie iron or 3 iron. This assumes a standard swingweight range of D-0 to D-5. Some experimentation with different frequencies will yield the flex that feels perfect for your game.

You can make a note of which clubs in your current hickory set really hit well and check those frequencies as a nice starting point. See how that matches up to the charts for flex and frequency and plot your own ideal chart for your hickory club lengths and corresponding frequencies. Any shafts that are too stiff can have wood removed to attain your ideal frequency. Clubs that are not stiff enough will have to be reshafted or replaced. It is difficult to put together an X flex set, but certainly not impossible. There are a number of really exceptional X flex hickory shaft clubs. I would not work down a vintage X flex shaft just because there are so few—better to find one of the plentiful R and S flex hickory shaft clubs and trade or sell the X flex to someone who needs one. The X flex shafts should command a bit of a premium.

Loft

Loft for loft, your hickory irons will hit about the same distance as your modern irons. This surprises a lot of people, but if one realizes that a hickory shaft iron is only about 1/4 - 1/2 of an ounce heavier than its modern length counterpart and that loft for loft, hickory shaft versus modern steel shaft, the hickory club is 1/2" longer in length, you can see that the physics dictate that iron distances are about the same between similarly lofted hickory shaft and modern steel shaft clubs.



Loft for loft, a hickory iron will hit as far as a modern iron.

The center of gravity in a hickory shaft iron head is very much high and inside and so a shot hit low on the face will tend to be shorter in distance than the same miss with a modern blade iron. However, this is somewhat moderated by the fact that hickory iron heads are generally larger than modern iron heads—another surprising fact for most people considering hickory club play.

The hickory shaft also has a very strong vibration damping effect on off-center shots, very much like modern graphite shafts or True Temper's Sensicore (foam insert in a steel shaft) technology. Indeed, when steel first took over

Playing Hickory Golf

from hickory shafts, one of the biggest criticisms of steel shafts was their vibration on a mishit that rattled your hands.

MacGregor Golf Company actually inserted a section of hickory wood into the shaft tip and called this their “Neutralizer” system to avoid this unpleasant hand shock. The “Neutralizer” shaft “technology” was used by MacGregor for over 10 years and was prominently stamped into their iron heads. Even up into the 1990s, Mizuno Golf was using this same wood insert in the tip of their premium blades to give their clubs an extra good feel at impact.

Often a hickory golfer will want to change lofts on his irons to better fill the distance gaps between clubs. The issue that must be kept in mind is that nearly all hickory era irons have a “dig” sole angle and the stronger that you make the loft, the more “dig” that you produce. For every one-degree that you strengthen the loft, you create one more degree of dig sole angle. Conversely, for every one-degree that you weaken the loft, you add one more degree of bounce angle. The dig sole angle has very poor playability and a neutral or bounce sole has very good playability.

Even the really excellent Tom Stewart and Robert Condie irons often have a sole angle that is just at zero degrees bounce, so that a one degree stronger loft will produce one degree of dig sole angle. Some Stewart and Condie irons have three degrees of bounce and you can strengthen the loft a couple of degrees, if desired. Remember that you increase the face offset when you strengthen loft (and you add face progression when you add loft). So before you consider strengthening a club’s loft, look at the bounce angle of the sole first to see what realistic possibilities are open to you—if you want to maintain excellent playability! Of course, it is almost always better to increase loft because the beneficial bounce angle will also be increased.



A brassie makes a great driving club in hickory golf.

Driver lofts can be misleading because the weighting of the head heavily influences trajectory and that can be changed with a different placement of lead weight. The average hickory driver has eight degrees of loft, but most modern day hickory golfers will have much more success with a higher lofted brassie. This is in part due to the way current golf balls are designed. Top golf balls today produce a low spin rate designed to be used in conjunction with a high launch angle driver to achieve maximum distance. So to maximize your hickory driving distances, you will need to launch the ball fairly high and a 12 or 13-degree brassie is much better suited to this task.

Even in the era of hickory golf, top players would often use their drivers when hitting into the wind only, using the brassie on all other tee

shots. Sam Snead, the early steel shaft golfer, teed off with a 2 wood for many years, foregoing the traditional driver for a higher hitting, more controllable tee ball. The same advice can go for your spoon or fairway wood. A 17 to 20-degree spoon will often be far more effective for the majority of players and the versatility offered by this higher loft club can be very helpful. I use an eight-degree driver, but I recently played one of my best tournament rounds using my 13-degree brassie off every par 4 and par 5 tee box! My spoon has a very high launch angle as well. The higher your swing speed, the lower the lofts that you can effectively use in your hickory shaft woods. The X flex player might like an eight-degree driver and 14-degree spoon; the S flex player might do his best with a 10-degree driver and 16-degree spoon; your average R flex player probably does best with a 12-degree brassie and 18-degree spoon; and a soft swinging hickory golfer would likely be most effective with a 14-degree brassie and 20-degree spoon.



Too much loft and your hickory shaft putter will bounce the ball to the hole.

Putters must have the appropriate loft for the player's stroke or else the ball will not roll correctly. Too much loft and the ball is airborne and skipping across the ground before it ever starts to roll and, worse yet, not enough loft and the ball is hit down into the turf where it rebounds back and bounces up short of the hole. Check for correct loft on your putter by stroking 30 foot putts on a dewy, early morning green and checking the dew trail. Does the ball roll immediately off the face of the putter? Or is the ball airborne for a time before it touches down on the green? Check to see if the ball is hit directly into the turf and, consequently, bounces at the start.

Most hickory era putters had around five to 10 degrees of loft, more than the current two to six degrees (four degrees of loft would be the modern "standard"). More loft was useful in the hickory era because the greens had longer grass and the extra loft rolled the ball better on these shaggier greens. A typical modern hickory golfer, faced with faster greens, would be wise to take his eight-degree putter and move it down to five-degree loft. With most hickory putters, this will be easy.

The aluminum mallet putters, however, will have to have the faces filed or milled to bring their lofts down because the aluminum will not bend; it WILL crack in half. Putting cleeks often had 10 or more degrees of loft and these were actually what you call in modern golf a "chipper" or fringe putter for use off the edges of the greens and especially useful on the links courses of the U.K. where there was minimal grass length around many greens and you had room to run the ball up.

Playing Hickory Golf

And speaking of milling and filing putter heads, I mentioned this before but it is worth repeating: many putters have faces that are not flat so that when an otherwise perfect putt hits a not-so-perfect face, a putt that should have dropped misses the hole. These faces must be filed flat—at least in the hitting area so that you can count on the ball going straight on a good stroke. I have had several hickory putters that would miss short putts if I missed my mark on clubface contact by about 1/16". The ball would just seem to go almost sideways off the putter face. When I would check the face with a straight edge, it was obvious that the face was not flat. After filing a nice flat area at least 1" across, the difference was dramatic with the ball coming off the face in a predictable line. Don't let an uneven face drive you crazy!

Grip & Grip Size

You can fit your hickory grips just like you would modern grips, creating standard size, undersize, midsize, or oversize grips and also creating any kind of tapering effect that you might prefer. Hickory grips are profiled somewhat differently than modern grips. Hickory grips are round and much smaller at the top with a very gradual tapering in size as you go down the grip that feels like the grip is the same size under the left hand as it is under the right hand.



Make sure your hickory clubs' grips are the right size for your hands.

A modern grip tapers much more dramatically as it goes down so that it feels much larger under the left hand and quite a bit smaller under the right hand. Some people experience quite a bit of shot dispersion pattern improvement when they try a hickory grip. The more even sizing between the left hand and right hand on a hickory grip tends to equalize your left and right hand grip pressures with a tendency to produce more consistent and straighter shots.

The modern grip with a larger top size, strong taper as you go down the shaft, and smaller bottom size creates a more open or relaxed left hand position and a more closed or tensed right hand position making your right hand prone to squeezing through impact which can lead to flipping at the ball with the right hand—the bane of the average golfer! Try the grip profile of an average hickory golf club and see if you don't improve your ball striking just because of the grip. I know I did.

When I first started playing hickory golf, I was amazed at how straight I hit the shots. I thought to myself, how could I hit the ball straighter with an 80-year-old golf club than with my modern clubs? It can't be the heads: their weights are virtually the same as modern heads, loft for loft, and the center of gravity is not as good as a modern club. Could it be the shaft?

The shafts were heavier and I think this does account for why improvement is experienced by some people. The move today is toward lighter and lighter shafts, yet your heaviest golf iron weighs only about one pound. Stronger players especially, often improve when they play the slightly heavier hickory golf clubs. Modern manufacturers take note! I even looked into producing heavier steel shafts for my irons, but it only made economic sense for very large-scale production.

Interestingly, the great MacGregor persimmon woods from the 1950s that were so popular among PGA Tour players for decades, had True Temper Dynamic steel shafts that were just about 1/4 of an ounce heavier in total weight than their 1980s (and current) version of the same shaft. This is the same amount of extra weight that a hickory shaft has. And those original MacGregor persimmon woods definitely performed better with their original shafts than newer, replacement shafts when I played them.



Heavier hickory shafts actually improve the play of many golfers.

Yet the higher torque levels of a hickory shaft would seem to negate any advantage that a slightly heavier shaft might have for some individuals. That leaves the grip. I duplicated the grip profile that my hickory clubs had on my modern set creating my

Playing Hickory Golf

own underlisting and using wrapped leather grips. There was hardly any taper to the underlisting as the size of the grip was very constant as it moved down from top to bottom. This definitely improved my play with modern clubs, but I still hit the hickory clubs a little bit better because of their heavier total weight.

It is very easy to create this “hickory grip profile” on a hickory club because it is just the profile of the hickory shaft under the leather wrap. If you prefer the modern tapering style grip, you will need more build-up tape under the left hand. Some modern grips have a ridge running down the underside of the grip to aid in the placement of the hands. This is a “ribbed grip” and many Golf Pride grips are available in either a round or ribbed version. The rib can be an aid to a higher handicap player or a good player may have become accustomed to this feel, but I do not recommend this style grip because if you have to move your hands around on the grip, the rib will be in a different place every time.

Ribbed grips must be installed exactly right as well, otherwise one grip might produce a closed face and the other an open face. The ridge also gives you extra leverage to “turn” your hands or to “hang on” and not release—both undesirable results. Round grips allow your hands to have the same feel whether you have the face slightly open or slightly closed on a shot. Round grips produce a smoother release of the hands as they turn through impact with your body. Round grips won’t get out of alignment. Hickory clubs all have round grips. If you are used to playing ribbed grips, I think it is worthwhile to get used to playing round grips. If you just can’t get used to round grips, you can create the ridge down the backside of your hickory grip by taping a small plastic rod to the shaft.

You can size your grips the same way you do with modern clubs, building up extra wraps of friction tape to produce an oversize grip. Dial calipers can give you a size measurement on your modern grip that can be recreated on your hickory grip. Check the measurement about 6” down from the top of the grip, this is the measurement under the right hand which is the most important place to measure when going from a modern to hickory era grip. Once in a while, the shaft is too thick to get your grip correctly sized, so you will need to shave the shaft down in the grip area until the size is correct. This usually doesn’t take much sanding and it does not change your shaft flex if you confine your sanding to the area where you grip the club.

There are numerous different leathers available for your hickory shaft grips and we went over some of them in the “Regripping” section of Chapter 3. Buffalo leather is the best for rough side out grips, with or without pine tar. Deerskin is the softest for smooth side out grips, but you will need to start with thicker strips because of the extra stretch that this leather has. Elkskin is also excellent in a smooth side out grip. Cowhide is cheapest in price. An interesting note is that there was a wrapped rubber grip made during the era, but it is not often seen because so few were made and rubber did not attain acceptance as a grip material until much later.

Swingweight

Swingweight is an arbitrary scale of how relatively heavy your clubhead feels when you swing. The scale is based on a ratio of grip side weight versus head side weight using a 14" fulcrum point measured from the grip side. The scale runs from A to B to C to D to E to F and to G with a 0-1-2-3-4-5-6-7-8-9 rating with each letter. The higher the letter, the heavier the head feels and each letter also has a number with again a heavier feel to each higher number.



The right swingweights can bring an extra measure of consistency to your hickory game.

So "D-2" is average, say, and "D-1" is lighter and "D-3" is heavier. "C-9" is lighter yet and one gradation up in weight would be "D-0" and then "D-1". Each swingweight represents about two grams of head weight; so two similar clubs one swingweight apart would have two grams of added head weight in the heavier club.

There are 28 grams in an ounce and 16 ounces in a pound. A golfer with a fine sense of feel can discern a four gram difference in head weight while most golfers need a change of 6-7 grams to be able to barely tell the difference in head weight (or total weight). This means that most people cannot tell the difference between "D-1", "D-2", and "D-3". You will be able to tell the slight difference between "D-0" and "D-5" (10 grams).

Some players get caught up in having every club an exact swingweight. This makes things unnecessarily difficult; especially considering it is beyond your ability to discern weighting to this fine a degree. I try to get my swingweights between D-0 and D-5 with

my niblick at D-9 and my other flanged niblick much heavier than this. There are some C-3 clubs that play quite well and a lot of Tom Stewart irons were designed to be in the "B" swingweight range. A reasonable range of swingweight for an average player might be C-5 to D-5. Don't be afraid to try some lighter heads, you may even like them better!

Total Weight

The total weight of your golf club is very useful in considering your choice of driver and putter. The driver is your lightest club in your golf set even though it is the longest. An average 43" hickory shaft driver with a D-2 swingweight will usually fall into the 13 1/2-ounce to 14 1/2-ounce range in total weight. The lighter the weight of your driver, the more potential you have for distance. I have seen 12-ounce drivers and 15-ounce drivers. The classic MacGregor persimmon drivers from the 1950s were 13 1/4 ounces in total weight. Our modern 45" titanium headed, graphite shafted drivers are about 11 ounces.

Different pieces of hickory wood can be different weights. The best hickory era drivers had very light, very strong hickory shafts. Some hickory shafts were quite thick and heavy. Look for the light and strong hickory shafts. These were the premium grade shafts generally found only on Scottish or English made clubs.

Your putter can have a total weight anywhere from 14 ounces to 18 ounces, but I think the best hickory era putters have a total weight in the 16 to 17 3/4 ounce range. Many hickory era putter heads are very light and this can factor into the total weight being too light. The persimmon or beech clubhead in your driver weighs about 200 grams, but your putter's head might be anywhere from 270 grams to well over 300 grams. My Spalding HB putter had a head weight of 278 grams but it was too light for my liking so I added lead tape to the back flange (which is barely noticeable) and brought the head weight up to 330 grams—very heavy! But since I have my putter at 33" in length the swingweight is only C-5. The total weight however, with this very heavy head, is 17 1/2 ounces—exceptional for the hickory era and very much like what you might see in a PGA Tour bag today.

This is an example of how swingweight can be very misleading; if my putter were 35" in length, the swingweight would be D-7—quite heavy. At 33", the swingweight is considered light, but either way the clubhead still weighs the same. The putter's head weight and total weight are often more important than swingweight for ideal playability.

Hickory Shaft Torque

To hear many modern golfers tell it, those old hickory shafts had so much torque, nobody could hit them straight. This is fairly amusing to many who have played some

hickory golf, especially those who hit their hickory clubs as straight or straighter than their modern clubs. It is true that when you measure a hickory shaft for torque, it has quite a bit higher torque than a steel shaft but this often does not translate into poor course performance.



Correct swing technique can negate the extra torque in a hickory shaft.

Torque, by the way, is the circular “give” or “twist” that a shaft has. Torque can be measured in degrees by clamping the shaft at a specified point and applying a certain number of foot-pounds of pressure in a circular or twisting fashion to the clubhead. You can demonstrate torque to yourself by holding the grip end of your club in one hand and slowly twisting the clubhead in the other hand. A steel shaft club or very high quality graphite shaft club will almost not turn at all. A low quality graphite shaft will rotate 45 degrees before you will want to stop before the shaft breaks in two.

A hickory shaft will rotate or “torque” a lot more than a steel shaft. In an excellent player’s swing, the body and hands are both turning quickly into impact, which, in essence, “spools up” the torque and neutralizes the higher shaft torque. We will cover this aspect in more detail when we discuss the ideal hickory golf swing in the next chapter.



*Harry Vardon
Open Champion 1896, 1898, 1899, 1903, 1911, 1914.*

CHAPTER 5

The Hickory Golf Swing

The hickory golf swing is very much like the modern golf swing. If you play excellent golf with modern golf clubs, the same golf swing will likely be highly effective with hickory golf clubs and you will probably play excellent with them as well. With that being said, there are certain golf swing techniques that are much more important to master in hickory play than in the modern game. And there are certain errors in technique that are much more penalizing in hickory play than modern golf.

There are also many different ways to swing a golf club and some great players have used swings that incorporate unorthodox moves that still are very effective. I am going to go over things that have helped me and things I have seen in others, but there are probably as many “ideal” swings as there are golfers! Let’s take a look at some overlooked aspects of good hickory golf technique in this chapter.

Pre-Shot Routine & Alignment

Let’s start with our pre-shot routine. The purpose of the pre-shot routine is for you to get lined up correctly to the target so you have the best opportunity to hit a straight shot. It is amazing what a high percentage of golfers are doomed to mediocrity because their alignment is so far off! If you point your body 30 degrees off your target line (which is common!), not even a perfect swing will be able to compensate for such an error; plus you are now working bad swing habits into your game to compensate for alignment issues. Let’s start by viewing our line from behind the ball and picking an aiming point.

Picking your aiming point is an important part of our strategy and I will go over that in more depth in my chapter on the mental game. Once you have





Proper alignment is a key fundamental in good hickory golf. Though my stance is slightly closed and my shoulders are slightly open, this set-up position produces a consistently good shot pattern for me.

your line selected, choose a point on the ground a few feet in front of your golf ball. Here is where most people go wrong. They have selected their line and intermediate target, but now they just casually walk to the ball from the side and assume their stance so that their body alignment is not nearly as exacting as it needs to be and the clubface alignment lacks the necessary precision as well.

One must realize that the whole purpose of the pre-shot routine is to put the clubface in exactly the right position—pointing straight down your target line. And, equally important, the club's grip position must be exactly right as well, not leaning several degrees forward or back, but perfectly vertical (front to back), at its correct lie angle. If you tip the grip position forward just five degrees as is common, you will set up considerably to the right. You must develop an awareness of the correct shaft angle at address.

Approach the ball from behind with your dominant eye focused on a position directly behind your intended target line. When you get to the ball, place the clubface so that it points directly down the target line and the shaft and grip so they are perfectly vertical (at your correct lie angle). It takes practice to be able to do this accurately. Once you have the face pointing down the target line and the shaft and grip straight up (at the correct lie angle) and not leaning forward or backward, only then can you take your stance, squaring your feet to the club's position.

You may want to lean the shaft forward on your iron shots before you swing, but don't do this until after you have taken your stance. About 90% of the golfers who read this are doing it incorrectly. Once your stance is correctly taken, you will grip the club, and waggle to keep your body in a ready mode while you double-check your alignment. From your set-up position, rotate your head toward the target, maintaining your neck angle. Your eyes should track your target line and finally your target.

As you are looking at your target, you will notice your left shoulder out of the lower left corner of your peripheral vision. You should see the same amount of left shoulder on each swing. If your shoulder alignment is too open, you will not see any of your left shoulder. If your shoulder alignment is too closed, you will see too much of your left shoulder. The shoulder alignment is the most important of your body parts to get correctly aligned in the swing. Again, it will take some practice to get the feel of your correct alignment.

A practice swing is an important part of nearly every good pre-shot routine. The purpose of a practice swing is re-familiarize your muscles with exactly what you will be calling on them to do in just a few moments. Your practice swing is also an opportunity to further ingrain good muscle memory into your swing and I recommend a ratio of three practice swings for every real swing, especially on the driving range. You want to customize your practice swing for your own unique golf game so it contains the elements that you are currently forming into good swing habits.

For example, if your head and hips have not been rotating during your swing, make this the entire focus of your practice swings until the thought “rotate my head and hips” becomes a feeling that can be replicated without thought. This might take a whole year or more. Always use a “customized” practice swing whenever you are playing or practicing. You can take a practice swing anywhere, even off the golf course, and generally the more practice swings you take, the better you become! Take your practice swings on the course as the very first part of your pre-shot routine. From your last practice swing through the rest of your pre-shot routine, alignment, and finally your actual golf shot, no more than 30 seconds should elapse. You can be incredibly precise in this short period of time.



A good practice swing often leads to a good shot!

Grip

Now let's check your grip. I normally use the interlocking grip though I have played with the Vardon grip and even the double overlap grip. A good way to apply pressure with your hands is in a direction that parallels the target line. Many of your exceptional golfers do this yet just a small percentage of middle handicappers do it this way. In other words, your left hand must “push” at an angle that is along a parallel path to your target line. If your grip is too strong (turned too far to the right), you will create grip pressure along a line pointing to the right of target.

The same applies to your right hand; most players have their right hand turned way too far to the right and they apply pressure in a direction that points well to the right of the target. This makes it difficult to release the hands correctly and to consistently hit straight golf shots. The correct right hand grip is also not as much in the fingers as most above average players have it. We are trying to achieve a strong amount

Playing Hickory Golf

of resistance at impact and we can't do that if the club is in our right hand fingers—that is a weak position.



*This is the interlocking grip which I prefer on my full swings.
This grip gives me more power than the Vardon grip.*

In an exceptional player, the grip looks like it is in the fingers, but it is actually braced solidly up against the palm at the base of the fingers so that resistance at impact is strongest. The application of right hand pressure is, again, paralleling the target line so that the right hand has the appearance of being “weak” or turned left. The palms are definitely not parallel. Extend your arms out in front of you with your palms together and open the bottom gap where your hands are touching until your palms are about 45 degrees apart. This is an excellent angle for your palms during the swing.

The angle that your palms are placed on your grip is different than the angle in which you apply pressure, and this can change depending on your hand and grip size. Another way to look at the correct hand placement is to allow your arms to hang in a relaxed fashion at your sides. Note that both hands, when relaxed, hang with the palms turned toward your body at approximately a 25-degree angle from “straight”. If you stand at “attention” in the military, your hands would be “straight”. In a relaxed position, your left hand turns to the right and your right hand turns to the left. This is how your hands should grasp the golf grip.

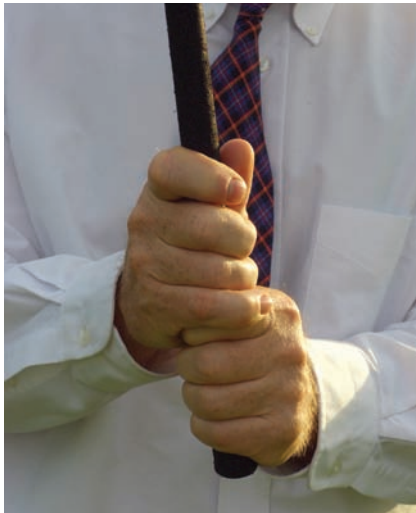
You can see this for yourself at The British Golf Museum in St. Andrews, Scotland where there are some great life-size bronzes of today’s most famous golfer’s hands as they grip their golf club.

The pressure points in the hands are very important as well. Most players have heard that the last finger on the left hand has to remain tight or else it loosens at the top of the swing, but few players attach their right hands solidly enough to the club. I prefer to squeeze the right hand index finger and thumb together on the grip so that the club is being solidly held at both ends—by the left hand little finger against the palm at the top and by the right hand thumb and index finger squeezing the grip between them at the bottom. If you are doing this correctly, the little round “ball” muscle near the base of your thumb on the backside of your hand will pop up. This muscle should be flexed during the entire stroke of every golf shot you make. This little muscle IS your right hand coordination during the swing—many golfers play with this little muscle entirely relaxed or partly relaxed and never do achieve their full coordination and golf potential!



From this photograph, it might appear that the palms of my hands are parallel to each other, but upon closer examination, you will find that they are actually offset from each other by about 45 degrees!

Playing Hickory Golf



Applying the Harry Vardon grip.

During Harry Vardon's era, the "two-V grip" was used almost universally. This is a baseball-style grip with the club in the palm of each hand, both thumbs wrapping around the shaft, and the "V" of each hand formed by your thumb and index finger pointing to your chin. Try this grip sometime and see how you like it. Harry didn't care for this grip and put the club much lower in both hands with his thumbs on top and pointing down the shaft. Harry overlapped his little finger of his right hand directly on top of his left hand index finger to better unite his hands and make them work as a unit. Golfers in his era feared they might break their left thumbs with Harry's style of grip because he wrapped his right palm onto his left hand so that he was pressing down hard on his left thumb with the palm of his right hand during the swing.

Harry's other key pressure points with his hands were the thumb and index finger of each hand and he squeezed them firmly with about the same pressure with each. He did not overly tighten the last fingers of the left hand like many players do now. Try Harry's grip, it works great, especially around the greens. Today, most golfers use the "Vardon" grip or a slight variation of it like the interlocking grip.

Many golfers inadvertently arch their wrists at address robbing them of potential power. The left hand should be in a line with the forearm and not be raised up or arched down. Point your left hand fingers straight ahead in line with your left forearm and notice the range of motion of your left wrist in an up and down plane with your palm in a vertical position. Now make a fist and arch your wrist. You would have very little "hitting" power in this position. You certainly couldn't punch anything without hurting your wrist. Your fist has maximum power with your hand extended straight out from the forearm. Address the ball with your forearm/hand relationship in this "strong" position.

You can use your hand's position to fine tune hook and slice during a round of golf if all else fails. If you are drastically slicing, you can turn your hands all the way to the right to help square up the face and if you are hooking badly, turn your hands all the way left and this should alleviate or eliminate the problem. However, these are but temporary answers and we will discuss better and more permanent solutions to these problems later in this chapter.

Stance

Try a shoulder width stance where the center of each foot will line up with a vertical line coming



I try to set up with my hips very level and my spine tipped slightly to the rear on my driver only. My arms are not forced straight and my shoulders are down as low as they can go.

down from the outside of the shoulders. Flare each foot about 30 degrees outward. Some players will do better with a narrower stance that produces a steeper downward angle and a few players do better with a wider stance that promotes a flatter angle coming into impact. Narrower is better for shorter shots like chips and pitches while a wider stance is more appropriate for a driver. Use your knowledge of approach angles to fit your stance width to your particular shot. Some players will change the angle of their right foot to increase or decrease their backswing's coil. A similar adjustment can be made with your left foot angle to help or retard the hips release through impact. Match the most effective position of your feet to your unique body.

I like a little knee flex at address, but some players start from a deep squat. With a lot of knee flex, the hips will not turn very far or very fast, creating a lack of power. With just a little knee flex, your hips can turn very quickly to maximize the speed of your upper body's uncoiling on the downswing giving you maximum power potential.

At the start of the backswing, you will want to have the toes of your right foot flexed and "grabbing" the ground to set up the necessary tension in the right leg to allow you to hold your right knee position from moving laterally to the rear on the backswing. A steady right knee position is critical to a good swing; the right knee can rotate as your hips rotate on the backswing, but it must not move to the rear or else you will not have time to slide back into correct position on the forward swing. The knees can either be "squeezed" in at address or pushed out wide at address to set up the required tension for a good backswing. Much like runners who wear out either the inside or outside of their running shoes, golfers will find one of these two knee positions will be anatomically easier to prevent the right knee from moving rearward.

Your weight should be on the balls of your feet and not on your heels. If your weight is correctly positioned, it will feel like your weight is on your toes because the toes will be flexed to maintain your balance. You should feel like if you tipped just a few more inches forward, you would fall on your face. The dynamics of the golf swing work better from this starting position and I will explain that in greater detail when I talk about balance during the swing.

Spine Angle

During the golf swing, your spine angle should remain constant until just after impact. The spine should be relatively straight with the butt pushed out and the chin up so that a line from your tailbone to the head would be the same as if you were standing tall and looking straight ahead. The more you incline the spine, the more you bring the shoulder and spine angle swing plane closer in line with the arm swing plane which can make the timing of the swing easier to achieve. The arms should hang straight down or be just slightly extended.

The shoulder plane and arm swing plane can be wherever you find them to be most effective. Complete books are written on just this subject. The spine is inclined



Maintain your spine angle through impact and you will get straighter golf shots!

over the ball, but also has an orientation forward and back in your stance. I prefer my spine to tilt to the rear at address with my driver so that that my head is centered above the rear half of my stance. This produces a nice sweeping approach angle through impact.

With the irons, I like my head totally centered in the middle of my stance so my head is not any closer to my front or rear foot. My shoulders feel very parallel to the ground in this position and my approach angle into my iron shots is steeper, but not drastic. For iron shots out of deep rough, I will tip my spine forward with my head centered over the front half of my stance to create a steeper approach angle into the ball.

The Highs and Lows of Impact

Let's start our look at the golf swing itself by going over some very specific issues that will impact how well you play your hickory golf clubs. In your golf game, it is a very good idea to look at your ball flight to diagnose your golf swing. The golf ball flight is like a computer printout of your golf swing's input data. When a golf ball rolls along the ground after impact, the clubhead position was too high at impact. When the ball skies in the air and falls way short of the intended target, the club was too low at impact, usually hitting the ground before the ball.

Playing Hickory Golf



Check your ball flight for clues to what happened during your swing.

This seems very obvious, but many golfers are not very good at finding their own swing flaws. Often a golfer will dribble his drive along the ground and moan, “Oh, I looked up!” That might seem logical at first glance. In fact, the problem wasn’t that he looked up; the problem was that the golf swing pulls a golfer’s head down with the quick acceleration of the downswing and, in a compensating move, the golfer has ingrained the bad habit of flexing his shoulders and biceps to shorten up the clubhead position and hit the ball solidly—only this erratic move often results in too much bending of the arms and a topped shot, especially if he correctly maintains his head position through impact.

So now the golfer is doing the opposite of what he should do to correct the situation—trying to stay down more, which tends to flex the tandem action of the shoulder and bicep muscles more and to raise the club even farther out of position. So the problem is complex involving balance, head position, and tension levels in the arms and shoulders. But our golfer is thinking that he knows the answer and so he never does find the real solution because he never started with the facts; he just jumped straight to a conclusion. The golfer must be a good detective and recognize the fact that

the club was too high at impact, which is the one thing he knows for sure; often anything else is pure conjecture or guesswork. Let’s look at some of these common misses and examine the detailed solutions.



Solid contact is of utmost importance in hickory golf.

In hickory golf, it is much more important to hit the center of the face of your golf club than it is in modern golf. Modern golf clubs are more forgiving if you hit too low (fat) because the wide, flanged soles found on most modern clubs will bounce off the turf, skidding into the ball or will slow the clubhead’s penetration through soft turf so better ball contact

is achieved. The thin sole of a hickory shaft iron will quickly penetrate into the ground if you are too low at impact, causing a “chunked” shot.

A modern golf club, again due to its wide, flanged sole and consequently lower center of gravity, will get good results when you are too high (thin) at impact; shots hit low on the face of a modern iron will get nicely airborne whereas the hickory shaft iron with its higher center of gravity may not even get the ball into the air, or certainly will lose considerably more ball carry than its modern wide flanged sole counterpart. The depth of your clubhead through the impact zone is critical to master for excellent hickory play. Many players, who are forced to focus on previously unexamined areas of their golf technique, make significant improvement in their modern golf games after some play with hickory clubs! So now, let’s look at the factors that occur when a golfer’s clubhead is too high at impact and he tops his golf shot.

A Steady Head

Three basics of solid contact with the golf ball are a steady head position, an extended arm at impact, and good balance during the swinging motion. There are many misconceptions about a “steady head”, so we shall examine the dynamics of the swinging motion of a golf club and how that relates to our head position. As an example of this swinging motion, I like to take my car keys from my pocket and twirl them in a nice, tight circle. I hold the key fob between my right thumb and index finger and I twirl the keys. Looking at my right thumb and index finger, it looks like my fingers are not even moving; yet the keys are twirling in a nice circular pattern that keeps repeating.

This is very much like a good golf swing with the keys being the golf club and my right thumb and index finger being the head in the golf swing. Of course, if I was actually holding my fingers still, the keys could not twirl; I am actually pulling in the opposite direction of the swinging keys so the key chain doesn’t slacken—but the amount of pull that I employ matches the force of the keys outward pulling action so that it appears that my fingers are still.

This is exactly what the head does in a good golf swing. On the downswing, the clubhead is going to accelerate from zero mph to 60+ mph in about three-tenths of a second! That is a tremendous rate of acceleration. There are no sports cars that can accelerate that fast! Buy a \$100,000+ Porsche or Ferrari and you will get quite a thrill being thrown back in your seat as you zoom from 0-60 mph in about four seconds but our golf clubhead is accelerating at more than 10 times that rate and this acceleration pulls our head down toward the ball during the swing just like the Porsche throws you back in the seat.

Most golfers will compensate for this by allowing their arms to buckle at impact, thus creating a second mistake to fix the first mistake in order to hit the golf ball. The problem is that this is not a consistent method for striking a golf ball. If you create a

Playing Hickory Golf

counter-force with the head pulling in the opposite direction of the club's momentum on the downswing, just like with the twirling key chain, you will be able to keep your head in the same three-dimensional position during the swing and this method is proven to be much more consistent than a bobbing head position.

The interesting thing is that you will have a distinct feeling of pulling your head up and away as your club accelerates into the ball—and most players are attempting to keep their heads down! The head should also rotate during the swing to allow the shoulders to move powerfully through their full range of motion. On the backswing, most players will do well to allow about 45 degrees of head rotation to the rear and on the forward swing, the ideal would be to allow the head to rotate with the shoulders.

Many golfers will ask, "Aren't I supposed to be looking at the golf ball?" The short answer is "no". Blind golfers shoot in the 70s; and many good players can close their eyes and hit the ball just as good as with their eyes open. You take great pains to set yourself correctly to the ball and once you are set up, it is better to use your eyes to track your clubhead position as it begins your backswing much like you use your eyes to track the road when you drive a car. As long as your eyes stay on the road, your car follows right along without you thinking about it. If you look on the floor for something you dropped, you could be in the ditch in just a few moments!

The "road" in your golf swing is the arc that your clubhead needs to follow on the backswing—not too much to the inside or too much to the outside, you must "stay in your lane" just like driving your car. Your eyes can effectively lead your clubhead back



Buckling arms through impact indicate tension, balance and head issues.

to a position where the shaft is parallel to the ground, before the clubhead moves beyond your effective peripheral vision. Leading the clubhead back with your eyes also has the added benefit of making it easier to rotate your head on the backswing.

On the downswing, let your head sweep through the impact zone with your turning shoulders. Many players not only keep their head down, but they keep their eyes on the ball and in so doing, they eliminate any head rotation during their swing which robs them of much of their potential power.

Most golfers raise their heads on the backswing losing their coil and get pulled down through impact destroying the swinging action of the golf club. The “swing” is then more of a chopping motion. As you coil on your backswing, the head should lower, if it moves at all, to achieve maximum coil and on the forward swing the head should be steady but with a distinct feeling of pulling up as you go through impact.

Extended Arm Position

Many players know that a steady head position and a straight left arm are essential to great shotmaking, so they start out by extending both arms very straight at address in the hopes that they will maintain this arm position at impact. Unfortunately, it doesn't work that way. Ben Hogan once said that if you figured out the right way to swing a golf club and then did everything just the opposite, you might have a perfect swing! Well, here is another example of how things are often the opposite of what you imagine.

When a player extends his arms extra straight, he also flexes his shoulders and this turns out to be his undoing because this partial shoulder flex turns into a tandem flexing action between the shoulders and biceps at impact which bends both arms and produces weak, thin hits. The shoulders must be relaxed during the entire swing. When the shoulders are relaxed, they are “down”; when the shoulders are flexed, they are raised up.



John Sherwood of England demonstrates his excellent, extended arm position through impact that has enabled him to win numerous hickory golf championships throughout the world.

Playing Hickory Golf

Try this little shoulder flex test: set up with an iron like you are going to hit a golf ball with your shoulders very relaxed and “down”. Now, don’t move your head or your arms, but just flex your shoulders (up) as much as you can. Would you even make contact with the golf ball? No, even though your head is still in the exact same place and your arms are still extended, just this shoulder flex alone is enough to produce a total whiff!

There are three checkpoints for undesirable shoulder flex during the swing: address, top of the swing, and at impact. The top of the swing is tricky because your arms are lifting and many players want to lift their shoulders at the same time. If you do this, your left shoulder will never go under the chin; it will be at about the level of the bottom of your nose. And your chin will be buried behind your shoulder.

Good players slide the left shoulder under the chin because they don’t flex the left shoulder on the backswing. Your arms go up and your shoulders stay down. For many players it will feel as if you are moving in two different directions at the same time. At impact, most golfers flex their right shoulder dramatically through impact covering their chin much like you see on many backswings. Check these positions on your own swing, holding each checkpoint position so you can examine your shoulder flex. Flex your shoulders into the incorrect position at all three checkpoint areas and then relax the shoulders all the way down at these same points. This helps you feel the difference between the two tension levels.

At address the shoulders should be relaxed and down, where they will remain for the whole swing. The arms must also be relaxed and hang down without being extended. Try this drill: stand erect with your arms at your sides and consciously relax your shoulders and then your arms. Now look down and watch as you extend your left arm as straight as it will go. Notice how the left shoulder flexes slightly when you completely straighten your left arm. This level of starting tension in your golf swing will cause you to flex both your shoulders and biceps at impact, buckling your arms and producing thin or even topped shots.

The shoulders must remain relaxed and the arms relaxed and just hanging with what will feel like a decided bend to both arms at address, this will allow the force of the swinging motion to pull or extend your arms through impact because you are not providing any resistance through tension and flex. If you learn golf as a pre-pubescent youth, your lesser body and arm strength force you to swing the club. As puberty hits and strength levels increase, you can easily “muscle” the swing. After all, the club only weighs one pound. That is why it is such an advantage to begin the game at an early age, when you will have no option but to swing the club and not use arm and shoulder muscles in an effort to control the swinging motion. Now that you know the facts about arm and shoulder tension, a year’s worth of attention to this area can transform your game. Take advantage of every practice swing opportunity to ingrain good shoulder and arm tension levels.

Balance

Good balance is one of the most overlooked elements of a really good golf swing, and yet it is one of the most important. If you have to take a step to keep your balance after your swing, or even if you are working your toe and foot muscles hard to



Pierre Fulke shows the balanced form that not only produced victories on the European Tour and in the Ryder Cup, but in the 2007 Swedish Hickory Championship as well!

maintain your balance at the finish of your swing, then your balance was not good during your swing. We already discussed how the force of the swing pulls your body and head forward and down during your downswing and how this is compensated for by other errors in the golf swing like inappropriate shoulder/arm tensions and collapsing arms through impact.

Your body should maintain excellent balance throughout the golf swing and a great checkpoint for this is your finish position. At the finish, your body should be totally balanced with most of your body weight on your left foot, hips turned toward the target, and your right foot pointed up with the tips of your toes on the ground. Your shoulders should at least be facing the target if not another 45-90 degrees beyond that, and your head should be facing the target. Get in the habit of checking your finish position after every swing.

Your swing takes about one second (0.9 seconds is average on

Playing Hickory Golf

Start with your weight on your toes so that if you lean about 3" more forward, you will be falling forward. For many people this will feel like they are too far forward. These people often start with the weight on the heels to compensate the swing's force that will be pulling them forward and down.

The key to maintaining your dynamic balance is your head acting as a counter-weight to the force of the downswing. Just as your fingers pull in the opposite direction that the keys are twirling in our key chain example, so your head pulls in the opposite direction that the downswing is pulling you so that these two forces counter each other. A keen observer might comment that your head seems very still during the downswing when, in fact, the player has the distinct sensation of pulling his head in the opposite direction of the downswing's pull. Many low handicap players do this move so intuitively; they don't even understand the biophysics of the move!

Of course, they don't have to understand it to play well. However, many golfers are actually consciously trying to do the very things that are incorrect in their golf swings to begin with! Examining your beliefs about what is correct in the golf swing can bring awareness and improvement to your game.

Tempo

Tempo is another very important element in the golf swing that plays an extra important role in the hickory golf game. Tempo is how long it takes you to complete various aspects of your swing. Your backswing tempo could be slow or fast. Your transition tempo could be slow or fast. A great way to sense your perfect tempo is to take an iron, hold it between your forefinger and thumb, and start the club swinging. Get the shaft to reach a point that is parallel to the ground on both the back and forward swing.



*Good tempo and good balance
go hand in hand.*

Note how gravity controls the downward acceleration; this is how your golf swing should feel. In fact, if your club just falls with gravity from the top of your backswing, you will achieve a stiff flex swing speed! Most players actually restrict their club's momentum and speed on the downswing.

Think about how quickly an object accelerates from a free fall: if you slip on a ladder, you can hit the ground before you can even make much of a move! A

free falling object quickly reaches a speed of 180 mph. Note that in our example where we are holding a club between our thumb and forefinger and swinging it back and forth that at the “start” of the swing, when the shaft is in a vertical position, the club has its greatest speed. Consequently, a quick starting burst of energy that provides the momentum to carry the club to the top of the swing position is your ideal starting and backswing tempo.

Most players are too slow at the start of their swings which forces them to consciously use their muscles to move the club through the correct backswing plane instead of directing the initial burst of energy to provide the momentum to automatically move the club through the correct plane. A quicker starting tempo will also more fully coil your body on the backswing, providing more power.

With modern golf clubs, errors in tempo, especially in the transition, may not be too damaging to your shot, but in hickory golf, with its smaller margin for error, a rushed transition move can cause a severe mishit resulting in a very potentially penalizing result. Focusing on and developing a good, unrushed transition tempo is one of the best hickory golf swing keys for the average or even very good player.

The Hands Lead Through Impact

This is the very first thing I teach beginning golfers when we start training with a putter: the hands must lead the clubhead through impact. The reason I start with this principle is that nothing is more important to do correctly in the golf swing than this. The natural reaction of people hitting a golf ball is to flip their dominant right hand at the ball so that the clubhead passes the hands before impact. This would seem to be the logical way to propel the golf ball forward.

But, this is really bad for three reasons: 1) the clubhead is now on the upswing, yet the ball is resting on the ground; you will consistently be too high with your clubhead at impact; beginners will top and whiff a lot of shots; 2) the clubhead will have too much loft: a good player leads with his hands and the poorer player leads with the clubhead—there is often a difference of more than 10 degrees of loft between the correct forward leaning shaft and the incorrect backward leaning shaft resulting in a 20+ yard distance differential; and 3) the resistance at impact



Note how the hands are still leading the clubhead well after the ball has been hit.

Playing Hickory Golf

is poor with the clubhead leading the hands because at impact the clubhead will slow down dramatically resulting in an additional lack of distance.



Don't flip the hands!

If the hands are leading through impact, the right wrist is still straightening and this leveraged position provides tremendous resistance and the corresponding tremendous distance. To imagine the effects of good resistance at impact, visualize a large wooden dock on the beach, extending out into the ocean. A 50 mph wind could blow a feather into the wooden dock, but there would be no damage because, even though the collision occurred at 50 mph, the feather has so little weight that there is not enough resistance at impact to do any damage.

Now imagine a naval battle cruiser that approaches the dock at five mph. Even though it is going 10 times slower, the battleship will

plow that wooden dock a block deep into the beach because of its tremendous resistance at impact.

Here is another example: pretend you are going to beat the dust out of an old carpet hanging at waist level with your right hand. With a golf motion, swing your hand at the carpet and let your fingers kick in front of your hand at impact with the carpet—don't break your fingers! You have no leverage, no resistance, and no power.

Now swing into the carpet again, but this time, keep your right wrist angled back at impact. Your whole body and all its weight is leveraged into a position to provide tremendous resistance at impact just like a good golf swing. Power in the golf swing comes from swing speed AND resistance at impact. This resistance at impact comes from good technique coupled with overall hand and body strength.

Some golfers hit very long through swing speed while others do it through resistance at impact. You would like to maximize both if possible, but if you don't have speed, you can still hit a very long ball with resistance!

Imagine the moment of impact of two identical swings with a stationary golf ball and a clubhead moving at 100 mph. In one swing the clubhead slows down to 50 mph upon collision with the ball and in the second swing the clubhead slows down to only 90 mph after impact with the ball. What do you think will happen with the golf balls? Well, the difference in distance would be substantial, even though the swing speed is the same.



Good resistance at impact generates seemingly effortless power.

With heavier hickory golf clubs, it makes great sense to try to maximize your resistance at impact by making sure your hands are leading through impact. You can get the feel of this leveraged position by taking an old basketball and hitting it with about a three-quarter swing. If you flip your hands through, you can tell there is very little power; if you maintain your wrist hinge and drive your whole body into the ball, you will feel the effortless power displayed by exceptional golfers. Don't just try to do this drill correctly, do the drill incorrectly, flipping your hands at the ball, so you can more easily feel the difference between the two different techniques. This will promote more accelerated learning.

Body and hand strength is the other area which can improve your resistance at impact. The golf swing is an athletic move that lasts just over one second. In this short time frame, you will need a burst of energy to launch your golf ball 200+ yards right at your target. You would like to develop explosive strength to improve your resistance at impact.

Weight training with higher weights and lower repetitions will help you achieve this goal. The more fit your body is, the better you will play golf. Many golfers fear becoming muscle-bound; lower weights and higher repetitions build muscle mass and you don't necessarily need muscle mass to play great golf. Strength training builds strength, not mass, and this is what is most helpful. Strength training involves much shorter workouts without high repetitions. You want to use weights that allow you around 5-10 repetitions. Even 2-5 repetitions are very good. Power lifters use strength training and bodybuilders use weights to build mass. Most top athletes employ strength training.

I have been fortunate to be trained by a former world champion power lifter, John Cunningham of Milwaukee, Wisconsin, and I feel this has helped my golf swing tremendously. I would work out twice a week: one workout for power and the second workout for speed. These workouts might only last 45 minutes and 15 minutes, respectively. I would work out year-round, even during the weeks of my golf

tournaments. My bench press has been as high as 370 lbs., though that seems like nothing compared to the 700 lbs. that John does! And that is a non-steroid 700! And you should see this guy hit a golf ball! If you ever had any doubts about the value of weight training for golf, watching John effortlessly blast a 9-iron 200 yards would probably change your mind. Launch monitors indicate that he would be the longest driver on the PGA Tour and I can verify that he can hit some unbelievably long golf shots, seemingly effortlessly, with all his golf clubs—and he doesn't look that much bigger than I am at 6' and just over 200 pounds! Strength makes a big, big difference.

Forearm Rotation

Now we shall look at one of the most important secrets to playing great hickory golf. We talked earlier about how it is possible to “spool up” the extra torque in a hickory shaft so that you can hit your hickory club as straight or straighter than modern golf clubs. It all has to do with forearm rotation. Clasp your hands together with your fingers outstretched directly in front of you, arms straight, palms together, and thumbs up. Notice how you can rotate your hands about 90 degrees to the right or to the left. Notice that this forearm rotation is separate from the swinging action of your arms. Your arms can swing and there are a number of possibilities for what your forearms could do while your arms are swinging. Let's look at the three most common possibilities for forearm rotation.

- 1) Your forearms could not rotate at all.
- 2) Your forearms could rotate to the left (closed face) on the backswing and to the right (open face) on the downswing.
- 3) The forearms could rotate to the right on the backswing (open face) and to the left (closed face) on the downswing.

Many golfers try to do #1, but end up doing #2 because of how quickly the body turns through impact which makes it difficult for the hands to turn fast enough to keep up with the quickly turning torso and arms. Only possibility #3 will produce consistently good hickory golf shots and will neutralize any potentially detrimental aspects of the hickory shaft's higher torque level.

The forearms, ideally, will rotate open 45 degrees on the backswing, and immediately upon starting the downswing will start turning closed until they are 45 degrees closed in the follow through. Again, hold your arms straight out in front of your body with your fingers extended, palms closed and thumbs up. Rotate your hands 45 degrees to the right while keeping your arms still. And then back to straight up and then 45 degrees to the left. Feel this several times and then swing your arms in a golf motion and feel this same rotation.

This is how the average player can rid himself of the dreaded slice and how a hickory player “spools up” the hickory shaft's torque so it positively affects the shot.



The forearms must rotate quickly to keep up with the turning shoulders

Let's look at this same concept from a slightly different perspective. Address the golf ball with any golf club. Notice that the back of your left hand is facing the target, that your left arm is hanging straight down and that your chest is facing in front of you. Now, take a backswing and hold your top position. This time notice how the back of your left hand has turned 90 degrees and is facing forward, how your arm has swung back about 90 degrees and is parallel to the ground or beyond, and how your chest is now facing to the rear, again 90 degrees turned from its starting position.

So we have the back of your left hand turned 90 degrees, your arm swung back 90 degrees and your chest turned 90 degrees. The downswing is going to take about three-tenths of one second. That is really fast. In less than half a second, your chest will turn back 90 degrees, your arm will drop 90 degrees, and your left hand should turn 90 degrees.

But for many players, the back of the left hand will drop without starting its 90-degree counterclockwise turn. If the turning of the left hand is not started immediately at the beginning of the downswing, you will not be able to square the face at impact. This mistake dooms many players to a life of slicing the golf ball.

The left hand must start turning immediately upon beginning the downswing or else it is too late to square the clubface at impact. When a player rotates his hands an extra 45 degrees open on the backswing, the downswing can be started boldly with a strong counterclockwise rotation of the forearms that assures the golfer that the face will return to very close to square at impact.

Many players, in an effort to swing from the inside, actually reverse rotate their forearms on the downswing. This puts the shaft more behind them on the downswing which mistakenly feels to them like they are coming more from the inside—and they are, but it is too much, the hands are way open, and an open face at impact is the only possible result. This reverse rotation not only insures an open face and sliced shot but also allows a hickory shaft to deflect to its maximum torque, which accentuates the slice dramatically.

Playing Hickory Golf

This is the one swing technique mistake that a hickory golfer would rather not make! It might seem that timing the opening and closing rotation of the hands through impact would be a difficult thing to do and that it would be easier to just keep the forearms square during the whole swing, but in practical application just the opposite of what you might think is actually true. It is easy to time the rotation of the forearms through impact for straight golf shots. It can be scary for the golfer accustomed to slicing a driver to roll the forearms open on the backswing; it can feel like the slice will be all that much worse. Instinctively, the slicer will close the face going back because he knows an open face angle at impact is his problem, but as he starts the downswing, the only option available to the forearms is to turn back the opposite way that they did on the backswing thus creating the very reverse rotation that causes the slice in the first place!



Ideal forearm rotation will leave you in this perfect finish position.

Hand Action

Hand action is separate from forearm rotation. Your forearm rotation could be correct, but poor hand action could limit your power and accuracy. Your hands act as a lever system that can provide additional power. Many players don't utilize the full power potential of their hands because they never get their wrists fully cocked on the backswing. The backswing takes six-tenths of a second in the average PGA Tour player's swing and many golfers don't attempt to hinge the wrists until halfway into the backswing or later when there is no longer enough time to get them fully hinged. For the players that don't get a full hinge, try to start the wrist hinge immediately at the start of the swing. A video camera can be helpful because what often feels like picking the club up too early will look perfectly normal.

There is a tandem flexing action between the muscles of the fingers and the muscles of the wrists that must be separated in a good golf swing. It is natural to tighten your wrist when you tighten your fingers. Make a fist as tight as you can and

see how the wrist naturally locks when the fingers clench. This is what many golfers do when they hold onto their golf club. This severely restricts their wrist hinge, cutting power dramatically. That is why there is so much emphasis on holding the club lightly. The fingers can hold tight, but the wrist must remain flexible. Pretend you are hammering a nail. You will hold the hammer tight with your fingers and use the flex of your wrist to snap the hammer forward. This is similar to good hand action in golf. Shots out of deep rough require as much hand strength as you can muster and yet your wrists remain supple to provide the snap through the ball. You can grip as hard as you want with the fingers if you have separated the wrist muscles from the finger muscles.

Let's look at the correct action of the right hand. Extend your right arm down in front of you in a golf stance with your fingers extended and palm facing the target. Without moving your arm, hinge the right hand to the rear and then move it all the way forward through its full range of motion. This flipping action is the incorrect motion that is so common. However, the backswing portion is correct. As we add a little arm swing, the right hand will hinge to the rear on the backswing and as the arm swings forward to the ball, the right hand will slowly straighten—providing powerful resistance at impact—but the right hand will still not have come into line with the forearm; it is still angled to the rear at impact.



Correct cupped right hand finish position.

After impact, the right hand and right forearm will come into line and after that, the right hand will hinge up and back. So the right hand never does kick forward. The only way to duck hook a driver is to let the right hand kick forward just before impact, which severely closes the face and hooks the ball drastically. You can see this for yourself: take a driver and address a golf ball; make sure the face is perfectly square at address and swing your arms back just six inches; now keep your arms there and let the clubhead move back to the ball. Notice how the face is about 30 degrees closed from just releasing your hands this small amount in front of your arms! Slow the release of your right hand through impact and it is impossible to duck hook the ball.

The left wrist angle is another key checkpoint area for hitting accurate shots. Ideally, the cupped angle between the back of your left hand and your forearm should remain

Playing Hickory Golf

constant during the entire swing. Place both hands on a golf club and address the ball. While keeping your arms stationary and your fingers firmly on the grip, cup your left wrist as much as you can. Notice how the clubface opens. Now straighten your left wrist out so that it forms a straight line with your left forearm. Notice how the face is now closed.

The amount of cupping that you start with at address should be the same amount you have at the top of your swing. Many players cup the left wrist additionally on the backswing, which opens the face. Swing to the top of your backswing and hold this position. Turn your head to look directly at your hands. Cup your left wrist to the maximum and then straighten the wrist totally out. You may have as much as a 90-degree range of motion with your left wrist angle. An expert player will swing back to the same position each time. The left wrist should maintain the same angle all the way back and all the way down through impact and even into the finish. This is a great habit to develop for producing consistently straight golf shots.

Another interesting note about hand action is that even though the hands lead through impact, AT IMPACT, the hands are just beginning their upward motion. What this means is that in the sensation of swinging a golf club correctly, the hands feel that they are moving “up” at impact. Many golfers are purposely trying to swing the hands DOWN at impact. Moving the hands “up” through impact was the primary swing key of one of the great golfers of the 20th century, Harry Frankenburg. You probably have not heard of Harry because his mother was an American Indian and thus he was not allowed to play on the PGA Tour. His book is listed in the appendix.



Correct hand action through impact.

Elbow Action

The elbows should stay the same distance apart during the entire swing. Almost all beginning and intermediate golfers do this incorrectly. As the backswing progresses, these players spread the elbows wider and wider until the top of the swing is reached. This position feels powerful because when your right elbow is wide, you have a lot of turning force that can be applied laterally with your shoulders and arm. Unfortunately, this doesn't do much for you in the golf swing except make you come over the top and

release your hands too early. To get the feel for the correct elbow action, I use a long scrap piece of leather that I knot together to form a circular band that I place over the arms, just above the elbows. Now you can't spread the elbows. There are training aids made out of elastic, but these are easily defeated or stretched out of position. Swinging with this band around your arms is very enlightening for many golfers as different sets of muscles are called upon to swing the golf club. I highly recommend some practice of this nature, no matter your level of play.

A lot of poor play that is blamed on poor hand action is actually poor elbow action. On the backswing, the right elbow must fold to 90 degrees and then hold this 90-degree angle until just before impact, or about halfway into the downswing, where the right elbow will fully and powerfully straighten through impact. Many golfers never fold their right elbow far enough on the backswing to maximize their power and others fold their elbow too far in an effort to achieve maximum distance, but this actually reduces power as well.

To get a feel for the ideal folding and unfolding of the right elbow, set up to an imaginary ball and put your left hand behind your back. Now, take a backswing but don't fold your right arm and then swing strongly through impact. You will feel the lack of power. Do another backswing, but this time fold the right arm as far as it will go. Now, unleash this downswing at full power. Again you will feel the lack of power. This time fold your right arm to 90 degrees on the backswing and then swing strongly down, fully extending your right arm through impact. You will feel the power!

Most golfers fail to fold their right elbow correctly on the backswing, and they do not straighten their right arm through impact either. The extension of the right arm through impact is one of the very strong components of good resistance at impact that translates into good power and solidly struck golf shots. Many golfers are so concerned about keeping a straight left arm at impact, because they see it in a stop-action picture of a top player, that they do not realize that they must straighten the right arm through impact to achieve this "look", and so both arms end up collapsing through impact which releases the clubhead in front of the hands and lifts it up for a thin, weak shot.

Many golfers with an "early release" of their "hands" actually have an early release of their right elbow at the start of the downswing and though the right elbow begins



The right elbow holds a 90-degree angle until just before impact.

straightening prematurely, it never does fully extend. When the right arm fully extends, the clubhead is driven down through the golf ball for very solid feeling golf shots.

Some players worry about being past parallel with their shaft at the top of the backswing and others worry about not being far enough back. If the right elbow folds beyond 90 degrees at the top of the swing, the club may go well beyond parallel. And if the right arm fails to fold enough on the backswing, the club may not reach this parallel to the ground position. Even if your right arm folds correctly, there are a number of other factors that determine the length of the backswing including rotational flexibility and wrist range of motion.

Bobby Jones was well past parallel as is John Daly, Colin Montgomerie, and Phil Mickleson. Numerous others are short of parallel like Nick Price and Paul Azinger. Most golfers would do well to focus on the proper folding and unfolding of the right arm as their main swing thought for a full golf season to make this a good habit in the swing.



If your right elbow folds correctly, do not worry about being a little short of or a little beyond parallel at the top of your swing.



There are several ways to successfully transition from backswing to downswing.

The Transition from Backswing to Downswing

There are three ways to transition from backswing to downswing. The first method is to just allow gravity to slow the club's momentum on the backswing and then allow gravity to start the downswing. You do not force any aspect of this transition. This produces a very leisurely change of direction that I think was best exemplified by the swing of the late Payne Stewart. Timing is everything in this swing. If you get too fast, for whatever reason, you can scatter your golf balls all over the course. You must develop great rhythm with this technique.

The second method is to coil the body tightly and at the end of the coiling process, your last move is to pull your left arm tightly across your chest and then let it immediately spring back down as the first move of the downswing. This is the quickest transition and is excellent under pressure because it requires far less timing than the first move. This swing produces a very quick tempo that feels too fast for many players. Watch Chad Campbell on the PGA Tour today make this type of transition. The average player has little success with this move because the arms are the last to wind up and then are the first to unwind, followed by the shoulders, and most golfers will fire their shoulders first and hit the ball way left. Once the proper downswing sequence is established, however, this move is great for the advanced player.

The third method falls in between the other two moves. Some players feel the downswing begin with a lateral bump of the hips to the target while others do not. I feel that my hands move to the rear as my hips turn left, "stretching" and pulling my hands into impact. Much like a water skier who turns right as the boat turns left. The tempo of this transition is faster than the first move but slower than the second one and fits most players. Surprisingly, any of these three transition moves will work well with hickory golf clubs. It might seem that the faster transition move would be ill suited to the higher torque levels of a hickory shaft, but if your shaft is correctly flexed for your swing, there is no problem.

Swing Plane

Swing plane is a very interesting topic. There are many planes in a golf swing and this can be very confusing for the average golfer who is just trying to make contact with the golf ball. The hips turn on a very horizontal plane while the shoulders turn on a plane somewhere between horizontal and vertical, and your arms swing on an elliptical plane that gets more vertical about halfway back than when it started and is more vertical than the shoulder plane. Your clubhead moves along another plane yet. Got all that? Try to think about keeping all these planes moving correctly during your one-second golf swing!

The mistake many golfers make is that they try to swing all their body parts along the same plane. This is particularly disastrous for the lower



There are many different "planes" in a golf swing.

Playing Hickory Golf

body. The legs rotate on a very horizontal plane. Visualize your two hip joints and see them turning parallel to the ground and level with each other. Most players raise and lower the hip joints on both the backswing and follow through, often to a much exaggerated weight shift. The right hip rises while the left hip lowers on the backswing, and on the downswing, the left hip raises and the right hip lowers. This would be somewhat akin to teeing up a golf ball in a small rowboat and trying to make a swing while the boat is rocking in the water; only it is your hips that are doing all the bobbing up and down.

This error leads to a very steep downswing plane and divots that are too deep. You will want to develop a very level action of these hip joints in your swing to promote a good approach angle and solid ball striking. I feel that I do not really have a weight shift in my swing and that the swing's momentum pulls me onto my left side just past impact thus giving the impression of a conscious "weight shift" though it does not exist as such.

The shoulder plane is another area that the average golfer frequently makes errors. Stand erect with your arms at your sides looking into a full-length mirror. Notice that your spine is erect or straight up. Your shoulders are parallel to the ground and form a perpendicular "T" with the spine. Turn to the right and then to the left, noticing how the shoulders turn at a right angle to the spine. This is how the shoulders turn in the golf swing. The only difference is that you bend over to incline the spine somewhat while swinging the club. So now bend over so that the spine is inclined for a golf shot. With your spine thus tilted, your shoulders will still turn at a right angle to the spine so that the right shoulder is high on the backswing and the left shoulder is low.



Here the shoulders are turning correctly with the spine. Note the low right shoulder position at impact.

On the downswing, the right shoulder goes low and the left shoulder goes high. This maintains the shoulders at a right angle to the spine during the swing. Many players twist their shoulders on the backswing so that the shoulders are turning more level to the ground and twist them again on the downswing to turn them level there as well even though their spine is inclined. They do this because the force of the swing is pulling them down on the downswing and if their right shoulder moved

correctly down, they would hit well behind the ball. Having not learned the essentials of good balance, they must compensate one error with another error and turn the right shoulder high to prevent this.

The twisting shoulders also tends to straighten the spine angle on the downswing which is less than ideal as this leads to shots pulled to the left. Try standing erect again and this time turn to the right and then to the left but twist the shoulders as you do it, just like we described. Your range of motion is shortened way down. Your potential speed of turning is much slower. And, you will not be as precise. Plus, this twisting motion is hard on your back and spine, increasing your chance for injury. Knowing the correct plane for your shoulder turn is the key to making this move a good habit and with just a little bit of practice along these lines, this move will become second nature.

To find your correct arm plane, take your stance and let your arms hang straight down to slightly extended. The more you extend the arms, the more you will need to incline the spine, bringing your arm and shoulder planes closer together and centering your weight during the swinging motion more. Once you are set, and without a golf club, leave your left hand where it is, but swing to the top of your swing with your right hand and stop there. Your left hand should be in its address position and your right hand should be at your top of the swing position. Make sure your right elbow is bent to a 90-degree angle and that your right hand is approximately over your right shoulder (those with longer arms will have their hands outside the shoulder).

Look at both hands and visualize a perfect arc going from your left hand directly to your right hand. Move your right hand from the top position to address and back so you can feel and see the correct arc. Alternate your hands. Many golfers take their hands away to the outside (what they feel is "straight back") and then they must reroute their hands to the inside (often getting the club too flat in the upper half of the backswing). There are no straight lines in the arc of a golf swing. Many golfers feel that their hands are moving very quickly inside after doing this drill. This is the correct feeling.

Golf Club Plane

Visualize the clubhead plane much like you did for the hands. If your hands are on correct plane, you can't be too far off with the clubhead plane although many golfers will "lay off" or flatten their club's plane on the backswing. The golf swing is all about accommodating the swinging action of the golf club, and if you get the club's plane out of position, the club will not swing easily and you will be forced to use excessive muscular force to control your out-of-plane motion. The best way to learn the correct plane for your club is to memorize the static positions of the club at several key points during the swing.

Start with address and then start the club back and go to a position where the shaft is parallel to the ground. This is a very key position. The shaft is parallel to the ground but not quite yet parallel to your target line. The toe of the clubhead is pointing straight up indicating your forearm rotation has occurred. Hold this position for a while to ingrain this correct feel in all your muscles.

Playing Hickory Golf

Next, go to the three-quarter position where your wrists have set and the shaft of the club is pointing to the ground between your feet and the ball. If you are too flat the shaft will point outside the ball and if you are too upright, the shaft will point straight down. There are laser pointers that can attach to the grip end of your golf club that are designed to show your shaft plane. They work very well. If you find your club is too flat, and that is very common, you will want to feel your right hand directly over the top of the left hand at this point. You can split your hands apart several inches on the grip to help you feel how the right hand stays on top of the left hand when the club turns upside down at this point during the backswing. Again hold this position for a while to give your muscles the correct feel.

Now go to the top of your swing. The shaft should be parallel to the ground and parallel to the target line as well. You can check yourself in a mirror to help you get the shaft angled correctly. Many players have the shaft pointing left of target, which tends to bring you back to the ball from the outside. Hold this correct top position as well.

The big mistake starting down is that a lot of players, in attempting an inside approach to the ball, tip the shaft flat at this halfway down point so that it is virtually impossible to get the clubface back to square, resulting in a big slice. It is the right forearm that turns clockwise when it should turn counterclockwise that is the culprit.

Do this drill. Without a golf club, swing your left arm back parallel to the ground. Note that the arm has moved back 90 degrees and that the left hand is also 90 degrees different from address with the back of your left hand pointing in front of you instead of at the target like it was at address. Now remember, the downswing is going to take about three-tenths of a second to reach impact. Your left arm will need to drop 90 degrees AND your left hand is going to have to turn 90 degrees as well if you want the clubface square at impact.

Take your left arm and hand and slowly move to the impact position. For every one degree the arm drops, the back of the left hand must turn one degree to the left, or to the ball, or counter-clockwise. Go back and forth and feel the action of the left hand as it turns with the drop of the arm. Now, from the top of the swing, drop the left arm and turn the hand the other way, this drops the shaft more behind you, making it impossible to square the left hand at impact, and produces a lovely high curving trajectory to the right. This is perfect for short, hard doglegs to the right, but not that useful for many other shots.

If the left arm drops just a few inches starting the downswing and the left hand just drops, but does not turn to the ball, it will be too late to get the clubface squared at impact! Because your hands are the part of your body furthest from your body center, they will be moving faster than any other body part, much like an old rotating phonograph record where the center moves slowly, the middle has a medium speed, and the outside of the record is moving quite rapidly. The sensation is that you are turning your hands very, very quickly, just so that you can keep up with your slower moving body center. This is a move that feels intuitively wrong for many golfers and something that they would normally never try.

When the shaft reaches a point parallel to the ground on the downswing, the shaft is actually “pointing” to the left of your target line. This is really important as many golfers have the shaft pointing to the right of the target line. Another way to look at this is that the shaft has passed the point where it is parallel to the target line and the clubhead is “outside” your hands; the clubhead is between two parallel lines one of which is a line parallel to your target line that runs through your hands and the other being the target line itself.

At impact, the left arm and clubshaft form a straight line and your right wrist is still about half hinged back. Your shoulders and hips are open to your target line. Maintain your spine angle. Hold this position.

Most golfers do not achieve the correct post-impact position where the shaft is again parallel to the ground. By flipping their right hand at the ball through impact, they buckle their arms and send the shaft way to the left. The arms should be straight with the back of the left hand and the left forearm forming a relatively straight line. The shaft should point to the right of the target and the toe of the clubhead should be pointing up. This is one of the most important positions to hold. By holding this position you ingrain the correct feel into your muscles and this is the fastest way to develop correct golf technique. Total beginners would do well to practice position by position before they even start swinging the club to expedite their progress.

Your finish position is actually a reverse image of the top-of-your-backswing position. Your shaft should be parallel to the ground and parallel to the target line, just as it was at the top of your backswing. This position completes a circular arc. Your hands will feel as though they are coming much more “up” to get into this finish position if you previously had a poor release.

Timing

Timing is having the body parts in the right place at the right time. It is different from rhythm or tempo. Different players can have different “timing” during their swings, but all good players have good “timing” at impact—the clubface has returned to square. Bad timing would be arriving at impact with a wide-open face. A wide-open face can be fine in the backswing, but not at impact. Another example of good timing that is universally seen in better players’ games is that their shoulders and hips are “open” at impact. There are good players who time different aspects of their swings quite differently from other good players. A good example would be the backswing coil.



Poor timing can often be recognized by a poor finish position.

Playing Hickory Golf

Some very good players start the swing by swinging the arms to the right until they catch the shoulders, then turn the shoulders until that catches the hips and then turn the hips until they can't go any further and then the hips uncoil, then the shoulders uncoil, and then the arms uncoil and finally the hands release.

This doesn't work for me. I do nearly the opposite. I coil the lower body first so that halfway into the backswing my hips are fully coiled. Then I coil the shoulders as far as they can go and then the arms. My arms release first, then my shoulders and my hips. This works best for me. Remember, when you talk about the downswing timing, you are splitting up three-tenths of a second into even smaller parts. It can be difficult to discern the order of timing in that brief a time frame.

This is where a video camera can be tremendously helpful. You can capture a player's hands releasing too early in the downswing on a video camera where the naked eye would have a very difficult time seeing this. I would highly recommend working with a video camera if you were serious about improving your golf swing.

Quick Fixes

Here is a brief guide to quick and easy solutions to some of the more common swing problems.

Duck Hook	=	retard the right hand timing through impact; don't flip.
Pull	=	keep the right elbow close to the body on the downswing.
Slice	=	rotate the forearms.
Push	=	check alignment; don't drop hands/clubhead behind you.
Thin	=	relax shoulders so arms can extend.
Fat	=	counter pull the downward swing momentum with your head.
Power loss	=	rotate your head and hips on both backswing and follow through.
High trajectory	=	hands and right elbow release too early.

Shanking

This is probably the most frustrating shot in golf. Almost everything in your swing could be fairly tolerable, but the ball is hit just a bit too much on the heel side of your iron shot so the ball hits the face and the round hosel at the same time sending the ball about 40 degrees to the right with a hollow thud.

There are a number of ways you can accomplish this shot. I have marveled at some golfers as I have watched them hit shank after shank without missing. When I try to hit a shank, it is not that easy, you have about a 1/4" wide area of the face & hosel that must be hit perfectly. The good news is that only a very well grooved swing could

repeatedly produce a shank. Unfortunately, the swing is grooved incorrectly. The complicated thing about fixing a shank is that there are so many ways you can shank it. Let's go over a checklist of things to examine when you are searching for a solution for shanking the ball.

- **First**, you can simply be standing too close to the ball. Make sure you have one hand's width of distance between your legs and your hands holding the club at address. Many players have their hands too close to the body so that their hands are between their legs.
- **Second**, you may be lining the ball up off the heel of the club. This is actually quite common. Move the ball out to the toe side. This is a good quick fix as well.
- **Third**, your stance may be too open, especially if you are just shanking short chip shots. When you open your stance, your right leg moves closer to the ball and as you turn into impact the right leg can make it impossible to get back squarely to the ball. Square up your short game stance.
- **Fourth**, the force of the swing may be pulling you down and forward. You need to counter this by pulling your head back & away, just like on your full swing, to maintain its position, even on short chip shots, because your clubhead is accelerating 0-30 mph in about two-tenths of a second.
- **Fifth**, related to this, your weight may be starting on your heels and ending on your toes and also,
- **Sixth**, your head may be moving toward the ball on the forward swing (this is common).
- **Seventh**, your backswing plane may be too flat. This will route the club too far out on the downswing. The shorter clubs need the most upright backswing plane. Don't let the club move inside your hands too quickly on the backswing and when the club tips upside down; make sure the shaft is pointing between the ball and your feet—not outside the ball!
- **Eighth**, the lie angle of your club may be too flat. This can force you into a backswing that is too flat for you.
- **Ninth**, your shoulders may be turning parallel to the ground on the forward swing, which thrusts the club outside the line, instead of at a right angle to your spine. Obviously, if the hands start the downswing, or the right elbow straightens early, this can produce the incorrect shoulder plane.
- **Tenth**, your right thumb may not have enough downward pressure on the grip. Squeeze the right thumb and forefinger together. Many players lay the right thumb to the side of the shaft with no pressure and nothing to prevent the club from moving up and away during the downswing.

These are the Ten Golden Rules of Shanking. If you can do all these things correctly and still shank the ball, give me a call, I would love to see your swing!

How to Practice

Here are a few thoughts regarding practice. Always practice with a purpose. Find out what aspects of your technique need improving and work on these issues when you practice. Some changes can take a full season of golf to implement. Only hit about 25 balls before you take a break to refresh your muscles.

It is generally an excellent idea to do three or more practice swings before you hit a shot so that hitting 25 golf balls also involved 75 practice swings. Use several swing thoughts when you practice, but reduce your swing thoughts to just one when you play. Use the swing thought that is the most effective at producing good results.

Don't hit a lot of driver shots. Hit 90% medium and short irons. It is a good idea to find a competent instructor and use a video camera if you are really serious about improving your game. Even just one session can be very enlightening.

Break your practice time down into three categories: full swing, short game, and putting. Make short game and putting account for about 70% of all your time spent practicing. Even just three minutes spent putting on the carpet is valuable. Evaluate your golf rounds so you know where your weak areas are.

Figure what your score would have been if you made every putt inside three feet, half of your other putts out to 10 feet, and got up and down every time from 50 yards and in.



Spend most of your practice time on your short game.



Robert T. Jones, Jr. who was commonly referred to as Bobby Jones.

CHAPTER 6

Playing The Woods And Irons

There is a lot of creativity involved in playing hickory golf because the clubs are so much more individualized than modern matched sets. Many shots are the same, but with the hickory clubs, you will want to avoid the tendency to press for distance or force the tempo of your downswing. It is generally much better to hit the three-quarter shot under good control than to hit all out with your clubs.

In fact, Harry Vardon's favorite shot with his irons was the "Push Shot" which was actually a modified half swing. Harry would grip down, open his stance, press his hands slightly more forward, and use an abbreviated backswing and follow through hitting more down on the ball with firmer wrists similar to an into-the-wind knockdown shot to produce a low-flying shot with a lot of spin that would land and stop. Harry's motto was "Reach the hole in the easiest way you can."

This is great advice with the hickory clubs. Hit a club that will easily reach the green with plenty to spare. It helps me that the clubs have names like cleek, iron, and mashie because I do not have expectations of what distance I should hit a "mashie" like I do with a modern 7 iron. I know many a golfer who likes to tell of their 180-yard or more 7-iron shot that they hit. But for every good one of these full blasts, there are many more failed efforts that should convince the golfer of the value of the three-quarter shot for consistently good results.

With the woods, it is especially important not to press for distance. That is not to say you can't hit the ball hard, but you must hit the ball hard with the natural build-up of downswing momentum and speed and not any forced power that comes too early in the transition from backswing to downswing. Let's look at a few of the special shots you might want to play during a round of hickory golf.

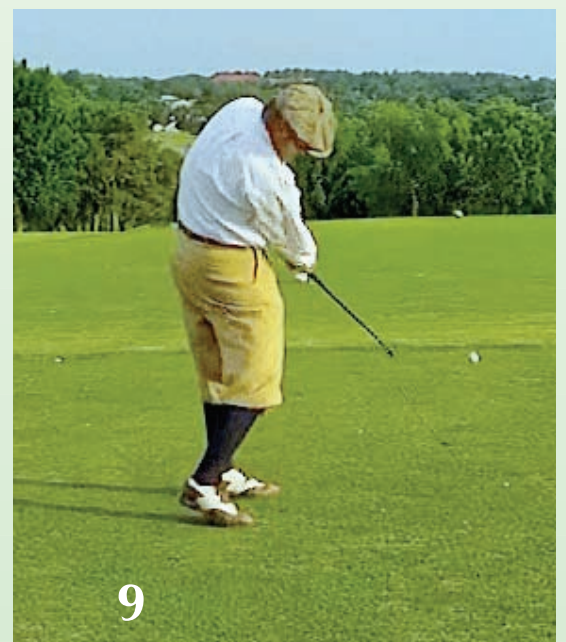
The High Drive

The easiest way to hit this shot is to simply tee the ball a little higher and make the identical swing that you normally would. Don't tee the ball too high using a hickory driver because the average driver face depth is only 1 3/8" on a hickory club versus about 2" deep on a modern titanium driver. You can easily go right underneath the golf ball! Your normal tee height will be considerably lower than with a modern driver.

The Driver Swing



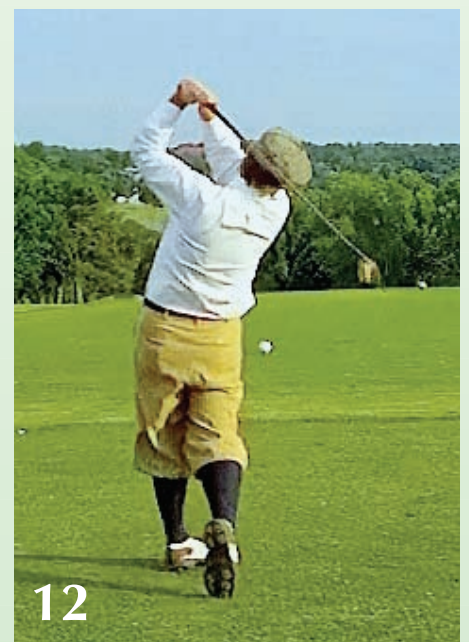
At address, my weight is well forward with my toes clenched into the ground. As I extend away on my backswing, I allow my right leg to straighten for a free-flowing and unimpeded shoulder turn and arm swing. I maintain my spine angle on the backswing and through-swing by turning my shoulders at a right angle to the spine. Many players attempt to turn their shoulders parallel



The Driver Swing



to the ground which pulls the base of the spine toward the ball on the downswing, resulting in thin and pulled shots. This is especially bad for the hickory golfer. I try to swing my hands through a wide downswing arc with my driver and long irons. Note my solid, balanced finish position.



The Driver Swing



I swing along a wide arc going back. Do this by slowing down your arm speed and increasing your shoulder turn speed so that when your left arm is parallel to the ground on the backswing, the left arm is at approximately a right angle to your upper body and not pulled across your chest. If your hands and arms are too quick moving away, your shoulder turn will be limited and your swing arc will be short and



The Driver Swing



steep resulting in a glancing blow at impact with reduced distance off the tee. My head rotates to the rear with my backswing in frame 2 and forward in frames 9 and 10 so that my shoulders can turn freely for maximum power. My body and head stay very centered during the entire swing.



For the high shot, tee it up an additional 1/4". This doesn't sound like much, but a 1/4" higher impact point on the driver head produces a noticeably higher trajectory. For additional height, I will play the ball slightly more forward and tilt my spine more to the rear at address. Consider playing a brassie for downwind shots and a driver for into the wind shots.

The Low Drive

This is a very common shot that even middle to high handicappers should attempt when driving into a stiff breeze. You want the ball to stay very low so that maximum distance is achieved when the wind is really blowing at you hard. Tee the ball about 1/4" lower and make the same swing. For an extra low drive, move the ball back in your stance and straighten your spine angle as well. Don't flip the right hand at the ball; keep the hands well ahead at impact.

Intentionally Sliced and Hooked Drives

I once watched Billy Casper play a round of golf at my home course. Billy was playing a fairly strong draw shot with about 20 yards or more of right to left curve on every drive. He was striking the driver beautifully, putting the ball nicely in play on all the holes but I wondered what he was going to do when he got to hole #14 which called for a sliced or faded tee shot to miss a large willow tree in the right rough that blocked the fairway. When he got to 14, he grabbed his driver and set up for what looked like his normal hook. He started the ball to the right of the willow tree, hooking the ball just across the tree and into the left rough from where he made a nice par.

The moral of the story is: play your own game. Don't play a fade or slice if that is not your game and don't play a hook if that is not your strong point. With that said, sometimes you may want to hit a draw or fade off the tee. There are two ways that work to move the ball to the right or left that I like.

The first is simply to open or close the face just a little and then swing normally. This works well although I like the second method better and that involves just rotating your forearms more quickly on the downswing for a hook and not rotating them as much for a slice. You can get a great feel for this by assuming your golf stance, letting your arms hang down, and holding a basketball, one hand on each side with your palms parallel. This is a good drill for training in the proper forearm rotation during the swing as well.

Swing the basketball back so your arms are parallel to the ground. Your hands should rotate an extra 45 degrees so that the back of the left hand is pointing 90 degrees away from where it pointed at address and both hands are the same distance from the ground. Now swing down to impact where the back of the left hand is facing the target and then through to the finish where your arms are again parallel to the ground and

your hands are the same distance from the ground. Now for the slice or fade shot, do the backswing the same, but don't rotate your forearms in the downswing so at impact, your right hand is closer to the ground and in the follow through, the left hand is above the right hand. You can vary the amount of how "open" you swing through to create the desired left-to-right curvature of your ball.

For the hook or draw shot, the hands are just reversed on the downswing and follow through with the left hand closer to the ground at your impact position and with the right hand directly over the left in the follow through position with the arms parallel to the ground. A good analogy of this would be if you were driving a car with both hands on the steering wheel and you wanted to take a right turn, both hands would turn to the right, and for a left turn, both hands would turn to the left. For a sharp turn, you would turn your hands quite a bit and for a gentle curve in the road, you would turn your hands a small amount.

This is very much what you are doing in the golf swing. Do this fun drill with a friend at the driving range: take an iron swing and right as you get to the top of your swing, have your friend call out either "draw" or "fade". On your downswing, turn more or less with your forearms to produce the "draw" or "fade" that your friend just called out. This has excellent applications on the golf course, as there is usually one side of your target area that you would like to avoid and a ball moving away from that area can be good.

Fairway Wood Shots

Your lie should always dictate your club selection and I won't consider using my 15 degree spoon unless the lie is very good and the stance is fairly level. The "bulldog" style lofted spoons with 18-25 degrees of loft can be excellent trouble clubs. And there are some "hybrid" style fairway woods, some made by William Mills, which are great out of the rough. You play these just like your modern equivalents. Beware of moderately sloping lies in any direction as they call for a three-quarter swing to maintain good balance regardless of the club selection.

Iron Shots

There is an incredibly wide range of hickory iron head shapes that have been produced. Different head shapes are more ideally suited to different kinds of shots. The lower profile "cleek" head shapes will get the ball airborne easily. The shorter, deeper "mashie" profiles are much more effective out of longer grasses. It is nice to have a variety of iron head shapes in your golf bag to match the different situations you may find yourself facing on the golf course. For example, I have two long irons: a driving iron and a driving mashie. The driving iron with its long, low profile is excellent off the tee or from the fairway but its long heel-to-toe length makes it a poor choice out of long grass.

The driving mashie with its shorter, deeper design is exceptional out of the rough, but not as “forgiving” from a perfect lie as the driving iron. So they each are excellent for a particular shot. In the Tom Stewart line of golf clubs, you will find that a number of clubs have a 30-degree loft but their head shapes will produce different trajectories so you choose the club depending on the shot you are looking for. The 3-iron and mashie iron, for instance, differ substantially in shape. The shorter, deeper faced mashie iron will produce a low shot and is excellent from the rough while the 3-iron with its longer and lower head shape will hit higher, but have more trouble from the rough.

The “jigger”, generally also at 30 degrees, would be another option that would hit higher than the 3-iron and yet be much better out of the longer grass. Knowing which of these clubhead designs to use is important because they each allow you to hit certain shots well but make others difficult.

The Knockdown Shot

This is the shot that is so useful when playing into the wind and it is the one shot that you may use more than any other that we talk about. You will have trouble hitting this shot with a jigger or 3-iron because their low profile produces a high trajectory while a mashie iron will work great because of its deeper face and higher center of gravity. The spade mashie is the other really deep-face club that is very effective at the knockdown shot.

I just move the ball back in my stance to the middle or even more depending on how low I want the shot, use less wrist action, and hit the ball with a half to three-quarter swing. This keeps the ball low with minimal spin so it won't balloon into the wind. Harry Vardon hit a similar shot that he called a “push shot” that we talked about earlier. Tom Stewart even made a “push iron”! You will want to practice this shot and make sure you have an appropriate couple of clubs in your bag to hit this shot with. The driving mashie, mashie iron, mashie, and spade mashie are all good choices for this shot.

The High Shot

When faced with an obstacle, like a tree, that you must hit over to reach the green, you will want to play a high shot. First, your lie must be good enough to allow the possibility of success. You are not going to hit this shot from hardpan or from a position where you are buried in deep grass. The best club selection would be a low profile and/or highly lofted club like a 3-iron, 4-iron, jigger, mashie niblick, or niblick. Move the ball forward so it is opposite your left heel, open the face for more height if necessary, and hinge the wrists quickly on the backswing. The more you come across your line from the outside and “cut” your shot, the more height you will get. Stay behind the shot through impact with your head. Feel your hands moving “up” as you contact the ball.

The Deep Rough Shot

This is another common shot that is misplayed by the average golfer more times than not. Examine the lie closely. You are better off hitting the ball 100 yards into the fairway for a 50 yard pitch than rolling your effort 30 feet ahead into basically the same position it was before you started. If the lie is bad, I do not try to hit more than a mashie. Two mashie shots for me can cover 340 yards. This little bit of arithmetic took me over 10 years to apply to my game!

Always hit a club that you can extract your ball from trouble with FOR SURE! Once you have selected your club, play the ball back in your stance and if the lie is really poor, tilt your spine forward to create an even more descending blow. Grip the club as tight as your strength will allow with your fingers and hinge the club immediately on the backswing.

Avoid the tendency to rush the shot, but drive down into the ball with all your strength and power. The attempt to save par will come not with this explosion from the rough, but with a well-played pitch and one-putt.

Bobby Jones

Now let's take a look at the swing of the best player to play the game during the wood shaft era—Robert T. Jones, Jr. Bobby Jones, as he was commonly referred to, was a contemporary of several other great players from the 1920s—the golden age of hickory golf. Walter Hagen, Tommy Armour, and Gene Sarazen all played at the same time.

Bobby Jones was born in 1902 and was a child prodigy, winning his first club championship at thirteen years of age and his first state tournament at 14! Jones possessed a rare combination of character, charisma, intellect, and golfing skill that culminated in his “Grand Slam” victories of 1930, winning the U.S Open, U.S. Amateur, British Open, and British Amateur. All of this at age 28! Jones then retired from competitive golf. The following sequence of pictures is from Bobby Jones in his prime.

Analysis of Bobby Jones' Golf Swing

- 1) At address, we see Bobby Jones has a wonderfully balanced starting position with his weight on the balls of his feet and his arms hanging in a very relaxed fashion. Both feet are flared out considerably, especially his right foot which sets up his big hip turn and back swing. If his weight were more on his heels this swing would be far less effective with his hands much too close to his legs. Jones employs a strong left hand grip and a relatively weak right hand grip, the palms are definitely not

parallel (which is correct) and though Bobby's left hand is stronger than most players seen today, his right hand position mirrors those of today's top stars.

Note the very relaxed left arm, slightly bent at address and the subtler and much harder to see, relaxed and "down" position of the shoulders. Nearly all mid and high handicappers have too much tension running through their shoulders which contracts the shoulder muscles and raises the shoulders up slightly at address causing the shoulders to flex or contract during the swing which then contracts the biceps, bending both arms through the impact zone of the swing (a fault common to well over 90% of all golfers). These same high handicappers often straighten their arms totally at address, which further increases the tension and actually creates the bowing arms through impact that they are trying to avoid. Bobby Jones starts with very relaxed shoulders and arms to set up the possibility of a very tension free arm swing that can extend the arms through impact as a result of swing speed rather than contract through impact due to inappropriate arm and shoulder tension.



- 2) At the beginning of the back swing, we see how quickly Jones sets his lower body and how tension free the hands and arms are. This quick setting lower body turn is different from many contemporary swings where maximum coil is attempted by letting the turning shoulders coil the lower body, resulting in minimum lower body turn, but more coil. Jones' early lower body setting technique puts quite a lot less pressure on the shaft at the beginning of the downswing, creating a smoother acceleration than a lot of modern swings and makes the higher torque of the hickory shafts a non-factor as far as potential shot accuracy.

Note, too, how Jones has rotated his head to the rear as his shoulders start to turn to allow maximum range of motion for his shoulders.



- 3) Bobby's club moves quickly inside at this point, more than would be considered ideal today and his left heel has come off the ground. When the lower body sets this quickly and fully, the club will tend to be more inside. Jones has maintained the same cupping angle in his left wrist that he started with at address which maintains his square face angle relative to his hands though his forearms have rotated some 30 degrees open at this point to the toe up position. This is quite an advantage to a hickory player because when the downswing starts, a player is about three-tenths of a second from impact and often it is difficult to keep the hands on pace with the rapidly turning shoulders and if the hands stop moving counter-clockwise for just an instant, a sliced shot results AND the extra torque of a hickory shaft will really send the ball extra far to the right when there is no counter-clockwise resistance at impact.



By rolling the forearms open 30-40 degrees on the back swing, Jones gives himself some potential counter-clockwise momentum starting the downswing to ensure that the hands don't stall coming down AND he creates a strong counter-clockwise resistance at impact that can negate the potentially higher torque (twisting) of the hickory shaft.

- 4) As Jones moves to the top of his swing, we see a very tension free and long turn with the hips still rotating around and the left heel moving even more up off the ground. This is not something generally seen in world-class players today and requires excellent rhythm and timing to be consistent. Any rushed move from the top would be the bane of this type of swing. The head continues to rotate to the rear to allow a really full shoulder turn and even though Jones' head ROTATES (as it should), it maintains its same position in three dimensional



space, not sliding rearward or moving up or down but simply turning to allow a full shoulder turn. Many players today would do well to incorporate this great move into their back swings as this can add extra power to your shots.

With Jones' quick lower body set, his club path has continued on a relatively flat path back to the top of the swing with his hands lower and more behind him at the top. This puts the angle of Jones' arm swing plane and shoulder turning plane closer to each other, making it easier to time his arm swing and shoulder turn, which is really good because Jones already has some elements which were difficult to time going on in his swing. At the top, Jones' left wrist and left forearm angle matches his address position and this is another element that is often overlooked by casual golfers. They usually change this left wrist position at address to a more cupped position at the top of the backswing resulting in an open face and the subsequent directional control issues.

One of the really quirky things that Jones did during his swing was loosen the last two fingers of his left hand at the top of his back swing to aid in sensing the correct rhythm in the transition from backswing to downswing and then tightening those same fingers as he started down. This is not a recommended move for anyone today as this re-gripping can cause a change in face angle and erratic shots. This unorthodox move, coupled with his long lower body turn, enabled Jones to achieve his world class timing; which just proves there's more than one way to build a great swing!

- 5) As Jones is doing that quirky left finger thing, he is also returning his left heel to the ground and rotating his lower body to the target which creates the "stretch" or coil that he uses to swing powerfully back to the ball. Many high handicap golfers never achieve that feeling of "coil" that produces both distance and accuracy and a big back swing alone won't do it. Jones has a very "free" back swing and creates most of his coil in the transition move where modern tour players create the coiling action progressively throughout the back swing by restricting their lower body turn to some degree.



However, both moves produce the coil, which is the key. Jones' quickly rotating lower body routes his club path a bit outside coming down like Sam

Snead or Bruce Lietzke, again showing that it is not a perfect swing that we want but rather a perfectly repeating swing! Because the strong unwinding of the coiling action drives the arms down on the downswing, the wrists remain hinged until just before impact, which will create maximum resistance and power at the point of impact. Without this coil, the hands are forced to drive the club down too early resulting in the infamous “casting” move that robs average golfers of power, accuracy, and good contact!

- 6) Through impact we see what good arm extension Jones achieves as his soft shoulder and arm positions at address have created very little tension in his swinging action so that the outward flow of energy can effortlessly extend his arms providing ultimate power & accuracy.

Also note how his head position has “recoiled” or moved slightly to the rear which demonstrates an element of good balance where a good player will counter the pull of the club’s acceleration by pulling his upper body in the opposite direction to maintain a perfect club head path. Jones’ balance is superb throughout his swing and this is an often-overlooked aspect of a good player’s swing that the novice and middle handicappers don’t appreciate; just how much of an impact good balance has on a golf shot.



- 7) Jones achieves a nice full release of his lower body and shoulders through impact in spite of keeping his head from rotating with his shoulders through impact. This puts a lot of stress on the neck and shoulders through impact and is not recommended for any kind of golf longevity. This is definitely a move for a young man only and perhaps if Jones had let his head rotate with his shoulders through impact, more like Annika Sorenstam or Jim Furyk, he would have felt more comfortable playing golf in his later years.



- 8) Note the classic finish position in perfect balance with weight on the left side, right toe tip on the ground and hips facing the target with the shoulders turned well beyond that. Jones' great finish position reflects how well things went in his swing and the average golfer would do well to take a moment at the end of their swings to monitor their balance and finish position, and who better to pattern your finish after than Bobby Jones!



Pre-1900 Golf Shots

There is more of a difference between pre-1900 golf and 1920s hickory golf than there is between 1920s hickory golf and modern golf! The gutty ball used in pre-1900 golf goes about 60% as far as a modern golf ball (or a 1920s ball). The shapes of the early clubheads are quite different, much longer from heel to toe. The heads are a lot heavier. There are no markings on the faces of the clubs. The game itself is much more of a running game. Wood tees were not yet in use and balls were teed up on sand. Golf gloves were not used until the 1920s. Fewer clubs were used so it was necessary to use less than a full swing on a great many iron shots. High lofted pitch shots were uncommon because small-headed niblicks were risky to hit and the ball's design and aerodynamics did not lend itself to high-flying, quick-stopping shots.

Plus, there are hardly any golf courses left that are appropriate (short, yet challenging) for this era's golf clubs. With this being said, you might wonder who would even want to play pre-1900 golf. But the facts are pre-1900 golf is probably the most fun you might ever have on a golf course! Score expectations are thrown out the window. A powerful drive is only going 180 yards! And anything can happen, even with excellent players, adding a lot of excitement to the game. In addition, a round of nine holes of golf can be played in about 45 minutes! This is truly a fantastic format for just having fun playing golf!

Oakhurst Links in White Sulphur Springs, West Virginia, home of the National Hickory Championship, is one of the few pre-1900 golf courses left that can provide you with this golf experience. This nine-hole layout was designed in the early 1880s and the course was played until just after 1900 when circumstances led the course to fall into disuse. Lewis Keller, on the advice of Sam Snead, purchased the property in 1959 and had Robert Cupp restore the course to its original layout in 1994. Today, this course is probably the most fun you could have playing golf with your friends, and it's only 2235 yards in total length!

To get a better idea of how this course actually plays and the number of different pre-1900 shots needed, I will go through each hole of this great course where I have won six of my seven National Hickory Championships.

1st hole: This is a 226 yard par 4 that goes downhill through a chute of trees, across a gravel road that is in play (no drop), past a small pond that is just 70 yards off the tee and then uphill to the landing zone that drops down to a mounded cross bunker and then across the gravel road again to the green. There are rocks on each side of the gravel road plus a rock wall with an out-of-bounds left of the green. Immediately



behind the shallow green is a steep drop-off of long grass that you would be fortunate to be able to find your ball in. Avoiding disaster is always the primary concern for me on every hole at Oakhurst. I will usually play quite conservatively to try to avoid the high scores that can come so easily to the inattentive golfer at Oakhurst.

The first thing you do is build a sand tee. There is a bucket of sand and a bucket of water on the square area of dirt and sand that is known as the tee box. You take a small handful of water and drench a little sand so that it sticks together good when you form your “tee” on the ground. It can take several days of playing pre-1900 golf to become reasonably proficient at making a good sand tee. It can be very difficult in the rain, and even in perfect conditions, if you wait too long before you hit the ball, the sand dries out and the ball tumbles down—hopefully not in your downswing! If the base of your tee flares out too wide in a pyramid shape, the bottom edge of your golf club will hit sand just before impact and you will lose tremendous distance. The tee must be more like a tower or at least the back edge must be very vertical to avoid spoiling the shot. Ross Snellings was the best I ever saw at making a sand tee. His long fingers formed a near perfect tower for the ball to rest on and other NHC players would study his exceptional technique.

You can play a wood from the tee, but if you are a few yards off your line, your ball hits the limbs of the overhanging trees and your ball falls into the formerly innocent looking pond. I have done this several times in competition. It is an excellent way to make a six or more. Once your perfect shot finds the center of the chute through the trees, it now must land in the vicinity of the cross bunker and the gravel road. If it hits the bank of the cross bunker and stays in, five will be a good score. You will need to chip over the bank and miss the gravel road lined with rocks and the treacherous long grasses around the green. Hit your shot thin and you bury in the bank or rebound back into the same position you were just in. If you clear the bank, but overshoot the green, your ball will be lost (that is certainly not the worst scenario because if you find it, you will have to play it and the consequences are likely even worse). So you get to drop in the same place and try again!

Playing Hickory Golf

If your drive clears the cross bunker, now you take your chances with the rock-lined gravel road that could send your perfect tee ball bouncing sideways, backwards, or who knows where. Perhaps you end up on the road or nestled in between two rocks at the road's edge like many competitors have done, including me. To take an unplayable lie drop is a TWO-stroke penalty and a one club-length drop behind your position where you are allowed to tee your ball (with sand). This is normally not much help. A lost ball is much better.

Of course our unplayable rule was formerly a one stroke penalty and return to where you previously hit from or a one club-length drop and that doesn't sound bad except for the "challenge rule" aspect of this drop that allowed your opponent to "challenge" your "unplayable lie" decision and attempt to swing at and move YOUR ball from its position with up to three swings and if he moved your ball, you had to play it where he hit it to AND add his strokes to your score. If he could not move your ball in three swings, he added those strokes to his own score!

So you could declare an "unplayable lie", one of your playing companions could "challenge" and go whiff, whiff, and with the third swing launch your ball backwards into a lake from where you would have to play your next shot after adding three strokes to your score. Needless to say, there was never very many unplayable lie penalty drops.

Your perfect drive could shoot like an arrow through the narrow gap in the trees, carry the cross bunker and the road, bounce off the small hill before the green and roll down onto the putting surface and with just a little too much speed, across and past the green stopping in the long grass only a few feet past the green where you never find it. That's okay; you can hit three off the tee. Anyway, I never hit my wood here.

My 20-degree cleek will generally not go long, but everything else is in play and I have nicked the limbs in the chute of trees and ended up in the pond on more than one occasion in the tournament! I watched Fred Fruisen, the 2001 National Hickory Champion, loft about a 30-degree iron OVER the narrow chute of trees and lay back quite a ways where he always had a relatively clear shot to the green and that is how I play the tee shot now unless I feel the need to gamble with my cleek. Then from a



downhill lie I will loft a niblick onto the green, bearing in mind that if I hit it thin, the ball will be in the long grass just beyond the green.

If I am short on my pitch, I will be in long grass around the green that is sometimes so difficult that a very good shot from just three feet off the green would be to be able to just get the ball on the green! I can remember hitting a short shot from just about two feet off the edge of the green that needed to go 40 feet to

the hole and I hit this shot very well and just carried the ball about an inch onto the putting surface!

I have seen so many players miss the green from inside 10 feet because the grass is so long and gnarly and the shot is so short and delicate. You must power through the long grass yet hit the ball softly just a short distance—with a smooth face niblick! With the grass so very difficult around the greens, you definitely need to hit the greens with your short pitch shots from the “fairway” which, incidentally, is about the length of the rough at most golf courses.

The greens at Oakhurst are slow and bumpy, nicely replicating the probable condition of the turf from 120 years ago. A one-foot putt at Oakhurst might be similar in difficulty to a tricky four-foot putt today. A perfectly stroked one-foot putt can miss the hole at Oakhurst, though it is much more common to just slightly mishit a one-foot putt to miss. Needless to say, one must bear down on every putt at Oakhurst. I have hit “perfect” four-foot putts that have bounced outside my line halfway to the hole, guaranteeing a miss, only to bounce back and go right in the hole. It is quite a test of one’s mental equilibrium.

2nd hole: The second hole is a 322 yard dogleg right par 5 that is the most difficult hole on the golf course. This hole has the highest stroke average of any hole in the National Hickory Championship. A good tee ball must clear a bank of tall grass and a sand bunker and end up in the vicinity of another gravel road that crosses the fairway. A tee shot too far to the left can go long into a creek that moves away from the golfer the further right the tee ball is hit. A tee shot just a touch too far right is into some pine trees.



A thin tee shot hits the bank of tall grass about 60 yards off the tee box and this is just one of several really good opportunities you have for starting on your way to carding an eight. There is more potential for disaster on this hole than any hole on the course. I hit my 20-degree cleek off the tee down the right side close to the trees. If my tee shot is well struck, I’m just across the road within range of the green, and then I will hit either a 30-degree iron or 40-degree lofted and try to hit the very front edge of the green, if I make perfect contact. That way I am never long because there is a swampy hazard that starts about four feet past the green: again, lost or unplayable.

Playing Hickory Golf

The second shot has long, virtually unplayable grass both left and right, so this shot must be hit really straight; I favor the left side slightly as this is a lateral hazard and not a lost ball! The right side is a steep hill with knee-high grass. One year after a perfect



tee shot, I hit what appeared to be a perfect iron shot down the right center but my ball hit an overhanging tree branch (that is no longer there) and kicked straight right into the bank of tall grass. Fortunately to find the ball after several bystanders joined in the search effort, I took three swings to traverse the 20 feet back to the fairway and finished the hole with an eight. I won the tournament that year.

Here is how I played the hole in the tournament during one of my rounds in 2005: perfect tee ball across the road; bad lie, but excellent second shot just 10 yards short of the green; the ball is in a divot really sitting down—if I blade it, it will go over the green into the hazard yet I must hit it up in the air to get it on the elevated green. I could risk a run-up shot, but the grass is so thick that this shot has not been working from this position. I open the blade and hit an exceptional shot that gets up as well as could be expected and lands just inches short of the green surface and about 15 feet short of the hole. The ball should easily bounce forward with its low trajectory and finish right next to the hole but instead it absolutely buries in the long fringe grass. The ball cannot be seen standing directly over the top of it. The hole is located up a steep crest 15 feet away.

If my next shot comes up six inches short, it will roll all the way back to me. Again, if I blade this shot, I will be in the hazard over the green. I play a risky explosion shot where I quickly hinge my wrists and hit down into the grass behind the ball, taking both grass and ball up into the air. I hit a near perfect shot that is high and soft and lands just short of the hole (scary!) but bounces forward up onto the flat surface stopping four feet beyond the hole. A great shot under the circumstances, and my fourth consecutive excellent shot. My par putt is a downhill slider that is just inside the right edge. If the putt misses and goes six inches beyond the hole, it is down the hill and into the fringe where I have already been. I hit my putt perfectly but about a foot from the hole the ball hits something and darts to the right! Now I am hoping the ball just hangs on and stops short of the hill! The ball just does stop about 1" from rolling all the way down the hill and I tap in for my bogey six—a bogey six played with nothing but excellent shots! The whole course plays like this.

3rd hole: This is a 106 yard par 3 from an elevated tee over a marshy hazard and up a hill to a small green with a bunker and a small pond just short and right of the green. You would think this is one of the easy holes, but I seem to make more bogeys here than any hole on the course! I used to hit my 50-degree niblick on this short par 3, but if you stick the protruding leading edge of your niblick prematurely into your sand tee just before impact, you will be playing out of the marsh in front of the green IF you find your golf ball. There is also a pine tree just in front of the tee box that makes shooting for the right half of the green risky. That is, if you call hitting through a pine tree and over two water hazards risky. Recently I have been using my 40-degree lofter for this shot as hitting long and left is safe for a very uncertain three, but probable four. Your ball contact must be very precise and your judgment of distance quite keen to hit this small green from the tee.



4th hole: This is a 291 yard uphill par 4 with a strongly sloping right to left fairway, a large swale in front of a very shallow green, and a radical drop-off into a deep gorge behind the green. I think this is actually the hardest hole to par on the golf course and it is one of the greatest par 4 holes I have ever played! I hit my Forgan wood off the tee on a line toward the right center of the fairway. The further right the drive is in the fairway, the better your stance and angle for your second shot.

However, the drive can kick strongly to the left when it lands in the fairway so you would like to aim down the right rough line at the waist-high long grass but if you miss the fairly wide fairway, you are not likely to ever see the golf ball again! The further left your drive ends



up, the more elevated the green will be for your second shot, plus you will be playing from the most severe ball above your feet angle that I have ever seen in a fairway. A long drive is a big advantage because you can approach with some elevation to your second shot and the green is only seven paces from front to back with a huge drop-off behind the green into a treed gorge that you want absolutely nothing to do with.

Needless to say, I play just short and right of the green so my chip shot has a good angle coming into the green. If I hit the green in two, I pulled the shot and hit it too hard. And if you hit the elevated green on the fly with your second or third shot, it can easily take one good bounce and down you go into golf oblivion. You can get into big trouble playing too safe on this hole by laying back too far on your second shot and having a 50 yard downhill/side hill pitch out of a bad lie to an elevated green seven yards deep. You need your second shot very close to the green, just not over the green. If all else goes wrong on the hole and you take a six, a seven, or even more, the view of these West Virginia mountains is spectacular from the green!

5th hole: This is a 235 yard extremely downhill par 4 with a boundary fence running down the right side less than 10 yards from the green. You can drive the green, but it is often more prudent to aim at the left edge of the green and hit a cleek just short of several bunkers that guard the left side of the green. If you play too safe, you are faced with a 50-yard pitch usually from a bad lie, over a bunker (which you do not have a really good club for) to a narrow green with an out-of-bounds staring you in the face! Chunk it or come up short and now you have a bunker blast facing the same obstacles you just had but only a much harder shot than before. Blade it somewhat and your ball hops over the fence.

You must play your tee ball somewhat aggressively to avoid too long a second shot. This is a good birdie hole and I usually hit my

cleek at the left edge of the green or right at the middle of the green if I want to take a chance and flirt with the out-of-bounds. This hole has one of the larger greens making a 30-foot putt commonplace, and with the previously noted uncertainty of holing short putts on these greens, your lag putting takes on additional importance. You will have to hit some of these longer putts more like a chip shot with some lower body turn through impact. You will also note the tendency to let the wrists release more on all your putts to help you get the additional power necessary to get the ball to the hole.



With a little play at Oakhurst, you can see how the modern putting stroke has evolved to suit the quicker pace of modern greens.

6th hole: The sixth and seventh holes are parallel par 4s down in the flat land next to a small stream. The straight away sixth hole is 269 yards with a banked tree line on the left, but very open to the shared seventh fairway on the right. The main issue is the mounded approach to the green that is bunkered both right and left and the bunkers both have a nice strategic mound between them and the green and that produces an opening at the front of the green about five yards wide, otherwise your approach shot will have to fly over one of these mounds. So off the tee, you want to position your drive so you can approach the flagstick through the narrow opening, which normally means aiming down the left side dangerously close to the tree line.



This hole is an excellent example of strategic design and how a lower trajectory, running game affects your choice of shots. A long drive will put you in the 40-70

yard range where, if your lie is good, you should be able to loft a shot over the mounds if necessary. If your drive leaves you 100 yards out, you should consider laying up short on your second shot since you would probably miss the green anyway and this way you can avoid the bunkers and mounds.

Even after a perfect drive, I often face a mediocre lie that will produce a much lower trajectory and I must be careful not to have a “hot” pitch fly the green because a stream meanders around behind the green. Yet I must clear the mounds. I usually try to aim directly through the middle of the gap in the mounds, regardless of the pin location, and land the ball on the very front of the green so that even if I hit the ball very thin, I will be less likely to go all the way over the green. I am counting on the likelihood that I can hit this shot straight because if I am just a little to the sides, I will be severely challenged by almost all the positions in and around the bunkers.

7th hole: The seventh hole is a 251 yard par 4 that parallels the 6th hole on the right as well as a stream with trees along its borders on the left. The hole is flat except for a swale just in front of the green. Directly to the left of the green are trees and just behind the green is the boundary fence. The drive is wide open to the right. The only

Playing Hickory Golf

problem is that a drive to the right creates a bad angle where you must shoot toward the trees left of the green and that leaves very little room to stop a ball on the green. So again, you want to aim your drive straight at the green, close to the trees and stream for your best angle into the green.

A long drive leaves me anywhere from 30-60 yards out and even a short pitch that lands in the center of the green can bounce over perilously close to the out-of-bounds fence. But a pitch shot just short of the green

will often die into the steeply sloped bank at the front of the green. Precision and a little luck are necessary on the approach shot. I try to land my ball on the green's false front and hope for a good bounce to the top level. If your drive has left you a longer approach shot, you have the interesting choice of trying to land in the swale hoping for a good strong forward bounce or flying the ball onto the green to see if it will hold.



8th hole: This 356 yard dogleg right par 5 has been a great hole for NHC drama over the years. The drive must go up a mild incline and over several bunkers before landing in a very wide fairway. However, the safely played drive in the middle of the fairway has a very poor angle to a well-guarded green surrounded by trouble. The best drive goes down the right side close to a line of tall trees that border a drop-away to the flat surface of the sixth hole.

If you miss right into the trees, you will probably roll down a small rocky hill and be left with a risky punch-out shot up an incline, between some closely growing trees, and back into the eighth fairway.

A long drive is a necessity to clear the initial hill and bunkers and can set you up to possibly hit the green in two shots. The long, narrow green is bunkered right and left with mounds



on each side and there is another shorter bunker protecting the left side and forcing the drive down the right side to open the angle to the green. If you play your drive and approach shot safely to the left, you may not be able to hit the narrow green from this angle, coming from a bad lie as you typically do. You have to carry a bunker and a mounded hill and stop before your ball runs into the far fringe or opposite bunker. The fringe around this green is legendary. You can be just a few inches from the green's surface and not make the green on your next shot. I will usually hit my 30-degree iron or 40-degree loft for my second shot and take a chance at the green if my lie is decent. Did I mention that the sheep are in play? They are part of the maintenance crew and they like to hang out on this hole. If your shot hits one of them, you have to play it as it lies!



9th hole: The last hole is a great par 4 finishing hole of 179 yards, all up a steep hill to a picturesque green in front of the clubhouse. There is a small creek only 50 yards off the tee that I have visited several times. A low drive can get snagged in the tall reeds and fall right in. A good tee ball must cross a hill that has some very tall, unplayable grass on it, and even if you drive the ball to



Playing Hickory Golf

the green, but are 10 yards left, you are in the tall grass. A short drive is usually trouble, landing on the hill with tall grass or in one of the short fairway bunkers.

Don't drive too far to the right, either, or your ball may roll down a hill to the gravel road leading to the clubhouse where you will be chipping off the rocks, uphill, under the tree limbs to a small, elevated green with unplayable long grass just beyond it. I aim a cleek at the right edge of the green and try to hit the ball hard and solid. The elevated green often leaves an interesting short pitch after a good drive. You can make anything from two to eight on this hole and sometimes it is just as easy to make a three as a seven!



Note that I never hit a fairway wood or my 20-degree cleek from off the fairway because the grass is so long. My 30-degree iron and 40-degree lofted are both very heavy, as is my niblick, and they drive through the thick Oakhurst grass very well. If I play these same clubs from closely mown grass, like on a modern fairway, the heads seem too heavy and cumbersome but they are perfect for Oakhurst.

My putter rolls the ball nicely at Oakhurst on the slower greens, but doesn't feel nearly as good on faster greens. Certain shots call for me to hit the ball hard, but I will never try to "press" for this extra distance. Drop and stop pitch shots don't exist at Oakhurst unless the greens are soggy; instead, you are usually opening the blade of your niblick in hopes of getting the ball airborne out of a poor lie and estimating how much runway this ball needs before it stops moving and if you can possibly make the ball finish on the green!



Walter Hagen

CHAPTER 7

Short Game And Sand Shots

Let's imagine a hypothetical game of hickory golf between you and I. We are playing the toughest hole on the golf course, a 400 yard uphill par 4 with the pin tucked in the far back right corner of the green next to a rather large lake. I blast a near perfect drive right down the middle 270 yards from the tee. You catch the ball just a bit on the heel and the ball fades into the right rough about 220 yards off the tee. You hit a lofted spoon a bit thin but it gets airborne and runs all the way to the front left fringe about 60 feet from the hole. I fly a mashie niblick right at the flag, and it hits close to the hole but bounces over into some long grass just off the green some 25 feet past the hole. You catch your chip shot a bit heavy and it pulls up 30 feet short of the hole. You run your par putt strongly at the hole and the ball nearly goes in, ending up five feet past the hole. I hit a delicate chip that nestles up just inches from the hole. Your bogey putt looks excellent, but just lips out, giving you a six to my four.

We were both just off the green in two, even though the quality of my shots was better. If we were to change positions after our second shots, I would chip your 60 footer up to four feet and make the putt. You might chunk the delicate chip, then chip long and two putt coming back from 12 feet. Again, it's my four versus your six. The difference is all in the short game. Anyone can develop a good short game. It does not require superior strength or exceptional flexibility. And the difference can be dramatic in your golf game and in your golf scores. Most golfers can get around the greens in regulation, but few have taken the time to master the short shots. The hickory golf short game is very much like the modern short game with the exception of sand play and we will go over each area of play.

The Chip Shot

What exactly is a chip shot and how does it differ from the pitch shot? The chip shot is a small arm swing



Chipping is your most reliable short game shot.

Playing Hickory Golf

motion that utilizes little or no wrist action. The pitch shot motion is a little longer swing with decidedly more wrist action and body turn. A chip shot could be hit with any club and quite a bit of distance could be obtained with a low-lofted club and this chipping motion like you would see in a recovery shot from under a tree, but normally the chip shot is used in close proximity to the green.

It is amazing how many golfers cannot hit this simple shot correctly. If you cannot bring the club back just a foot or two and swing it through correctly on this short shot, you certainly will have no chance whatsoever to do it correctly on a much longer swing. This is the first shot to learn after a beginner has learned the putting stroke, so let's look at the most important aspects of the chip shot.

The very first thing to learn is to lead with the hands. You cannot flip the clubhead in front of your hands and ever be as effective as the player who leads with his hands through impact. Your clubhead is moving up and the good player's clubhead is moving down. We talked about this earlier in discussing the full swing, but it is well worth repeating. If your clubhead moves in front of your hands through impact, the clubhead is now on the upswing, yet the ball is on the ground so you will either hit the ground early or hit too high on the ball. Also your club will have too much loft at impact plus you will not have good resistance at impact. So you will never hit the ball in a consistent, solid fashion. To train the hands to lead through impact, we snip the grip cap off a modern sand wedge and epoxy a 15" extension into the club. We grip the club normally with the extra length of shaft resting against our side just to the left of our body. When you swing, a flipping action through impact will pop you right in the ribs. If the hands lead through impact correctly, the extra length of shaft will not touch you. Another way to visualize the same concept without altering a club is to take a tee and insert it in the hole at the end of the grip on a modern wedge. Now pretend that the tee is shooting out a steady stream of bullets and you do not want to get shot! At address, make sure you are not shooting yourself in the left hip. Move the hands forward. Now swing the club without getting "shot". Flip the hands through impact and notice how the tee will "shoot" you in the stomach. Freeze your finish position with your arms and shaft approximately parallel to the ground and note where the tee is "shooting". This is a great drill for training the hands to lead the clubhead through impact and, thus, hit the chip shot correctly.

The second important aspect of hitting great chip shots involves using the length of your backswing to control your distance. With my hickory niblick, I will swing the clubhead back to ankle height to produce a five yard carry, to my knee height for a 10 yard carry, to my waist height for a 20 yard carry, and to head height for a 30 yard carry. This system doesn't work, however, if you change your grip pressure during the swing. Many players will squeeze their hands at impact adding a burst of acceleration, which carries the ball beyond the target, while others will let off their grip pressure and come up short. The grip pressure must remain constant during the stroke and the player must let the club "swing". The grip pressure could be firm or soft, as long as it is constant. When the grass is very long around the greens, a much firmer hold on the club is called for so the club does not twist in your hands before impact. Most golfers can develop superb touch if they learn to maintain a steady grip pressure in their hands during their short game strokes.



Chipping with my Walter Hagen convex niblick.

Playing Hickory Golf

Here are a few other ideas to consider for your chipping stroke. One is that the width of your stance determines your approach angle into the ball. A wider stance produces a sweeping stroke and a narrower stance creates a more descending approach angle. The narrower stance is usually more useful. The more flex you have in the knees, the more you stabilize and limit your body turn while the less flex you have, the freer you are to turn. On very short shots some extra knee flex can aid your body stability, hence, your precision. Longer approaches need more freedom of movement.

You can play these shots from an open stance or a square stance. The open stance replicates your full swing impact position with the body already turned somewhat to the target. With a very short backswing you may have difficulty getting in an ideal hitting position, so this helps by starting you in good hitting position. Some players with bigger builds will have more success with a square stance and a slightly open rotation of their shoulders. This keeps their right leg out of the way on the back and through motions.

You can position your weight wherever you like at the start of your swing, but if you shift your weight to the rear on a short swing, you will not have time to shift it forward because the backswing is so much shorter than a full swing. On most short shots the weight is best placed more on the left foot because this creates more “space” to cleanly hit a short shot. Keep a steady head position on short chips and pitches. Many players do this on full swings, but forget about it on these short, precise efforts.

Even a short shot creates enough downward pull to cause a “fat” shot, so you must pull away just a little, like on your full swings. Many players place their niblicks too low at address from a fluffy lie and then are too low at impact. Simulate your impact position at address. If your niblick is resting on the ground one inch behind the ball, don’t be surprised when you hit the ground first—that is how you set up. It can help to visualize the last six inches of your club’s trajectory before impact as you are setting up.

There are four rotational possibilities for your forearms on a short chip shot. The first method would be to have no forearm rotation at all. The power is supplied by the arm swing alone. The second possibility is to have a blend of arm swing and forearm rotation much like a full swing. Because the swing is so short, there is not much forearm rotation. The third possibility is to reverse rotate the forearms so the clubface remains square to the target line the whole swing. Horton Smith, who won the 1st Masters, putted this way. The fourth possibility is to hit these short shots almost exclusively with forearm rotation. There will have to be some arm swing as the shots get longer, but the rotation of the forearms is the dominant motion. This is how I prefer to hit my chip shots because I seem to be a bit more precise and I can make a more controlled, yet aggressive move.

You can also chip with your exact putting stroke. You use a lofted club but tip it up on the toe so the lie is like your putter. The rounded toe is now the low point of your club making it easier to avoid snagging on longer grass. This technique is excellent on short, delicate shots around the green.

I like to pace off all my shots inside 30 yards so I know exactly how many yards I need to hit my ball on the fly. There is a formula for how much distance your ball will cover through the air and how much it will roll. Translating to hickory, your 52-degree niblick will go one part through the air and one part on the ground. A 48-degree mashie niblick will go one part through the air and two parts run. A 44-degree mashie niblick would go one part through the air and three parts run. A 40-degree spade mashie would go one part through the air and four parts run. A 36-degree mashie would go one part through the air and five parts run. And a 56-degree niblick would go one part through the air and half again for run.

This formula works well provided your hands release correctly. If you scoop through impact, you will have to adjust the formula. Many players like to use whatever club will land on the edge of the green, switching clubs depending on the distance from the green and how far the hole is away. This is how Bobby Jones preferred to do it. I don't like this method as well because you are constantly using different lofts and different head weights and I seem more consistent when I stick with one club once I am inside 30 yards. Head weights can vary from 270 grams to well over 300 grams on your short and middle irons. In fact, my Hagen niblick has a 330-gram head weight, the same as my putter, so the feel of the clubheads is the same whether I have a 40-foot putt or a 40-foot chip. I just adjust the ball position within my stance to get the trajectory I want on these chip shots.

The Pitch Shot



The pitch shot produces a higher trajectory to stop the golf ball quickly on the green.

The pitch shot is distinguished by the wrist action. There is also more body turn and generally a longer arm swing. I like to break the wrist action down into three kinds: the 1/4 hinge, the 1/2 hinge, and the full wrist hinge. All three have their applications. On very short shots or for a lower flying shot, the 1/4 hinge shot works well. When a little higher trajectory or more spin is desired, the 1/2 hinge shot is the one to call on. When maximum height and maximum spin are desired, use the full hinge shot.

I gauge my distances by the length of my backswing. I visualize my left arm as a dial on a clock and swing it back to different positions for different distances. For example, using my 54-degree Stewart RTJ niblick, if I want to hit the ball 30 yards on the fly, I swing my left arm back 45 degrees and use a 1/4 wrist hinge. For 60 yards, I swing my left arm back 90 degrees, again with a 1/4 wrist hinge. A 1/2 hinge will add an additional 10 yards and a full wrist hinge will add 20 extra yards. I have a specific swing for five yards, 10 yards, 15 yards, 20 yards, 25 yards, 30 yards (these are all chips with my Hagen niblick), and then pitch swings at 30 yards, 40 yards, 50 yards, 60 yards, 70 yards, and 80 yards (these are accomplished with my 54-degree Stewart RTJ).

Playing Hickory Golf

My full swing with this club is 95 yards. I control my arm swing on my pitch shots by limiting my shoulder turn so that my arms can't swing beyond the point that they should and I feel I have a little "rebound" in the transition move that aids in starting this short swing on the correct downward plane. I strive for no weight shift on the backswing or on the downswing with both hip joints remaining level throughout the swing. I use these mechanics as the blueprint from which I try to play these shots totally with "feel". "Feel" is really a strong sense of body awareness and target awareness during the shot process.

I evaluate all my shots on a percentage basis and I think this is a great way to determine just how effective your shots really are. This is how it works: tour players are in a range of 5%-10% for accuracy. That means that from 100 yards, a pro typically would finish 5-10 yards from the hole. On a 30-yard chip shot that would be a yard-and-a-half to three yards. I like to factor in that six-foot putts are about a 50/50 opportunity for good putters so I need to be inside two yards so the odds are in my favor. On a 30-yard chip shot, I must be a little better than 7% accuracy to get inside two steps. Notice that at 70 feet, 10% accuracy would leave you seven feet—a putt you are more likely to miss than to make! Ten percent or better is always my goal on all my shots and I know when I must perform with extra precision, like on that 70-foot putt! Evaluate all your shots during the course of a round of golf using this percentage system and see what a realistic percentage would be for your game.

Chipping vs. Pitching



Edwin Chan and Willie Ducherer, both of Edmonton, practice hickory short game shots before a competitive round.

A chip shot is easier and more reliable than a pitch shot. The extra wrist action and body motion are just more things that could potentially go wrong. Chip whenever possible. Use less wrist hinge whenever possible. The more the shot is like a putt, generally the more reliable it is. In the hickory era, there were a great many more running shots played than there are now.

If you play some of the great links courses of Scotland, you will find a new appreciation for these low, running shots because the conditions make these shots the high percentage shots. The problem is that most players never play these shots in America because the game on our courses is all about the carry from point A to point B, so they are not very good at these shots. Often there is not even an opening to run a golf ball onto a green, even if the grass was mowed low enough to allow for this. It is tremendous fun to play some of the original links courses of Scotland and Ireland with hickory clubs designed with these courses in mind!

The Putting Cleek

Putting cleeks were really chipping clubs for use around the greens more than they were really putters for use on the greens. These clubs had higher lofts than actual putters, often in the 10-20 degree range. This extra loft was used for just getting the ball airborne enough to carry the slightly longer grass around most greens. Today, you will see some players chip with a fairway wood around the short fringes and that is where this club is most useful. This club is designed so that you can use your standard putting technique.



Higher lofted putters work great just off the edge of the greens.

The Flop Shot

This is a risky shot used to hit a very high, spinning shot that will stop quickly from very short range around the green. Open your stance and open your clubface and swing along your toe line with a quick, full wrist hinge on the backswing. Make sure your club is not laid off or flat on the backswing or you will blade the shot. Resist the tendency to flip your hands at the shot or to rush the shot. You can lay your blade flat on the ground and stand totally behind the ball to hit the ball almost straight up. Surprisingly, a giant niblick with its large face area is the best club for this extreme flop shot!



Note the height I have achieved with an open clubface on this flop shot at the NHC.

The Sand Shot

This is the hardest shot in hickory golf. Sand wedges weren't marketed until 1933 (Sarazen designed the modern sand wedge in 1932 winning both the U.S. Open and British Open that year) and then they were only produced by Wilson Golf Co. in steel shaft. Few hickory-era sand wedges were ever produced.

The Walter Hagen concave sand wedge came out in 1929, and while it had a large sole flange, it had no bounce angle. Maxwell pattern niblicks and mashie niblicks can be your best bet as some of these flanged clubs had bounce or could have the loft weakened to add bounce. Bobby Jones played this shot by hitting the ball and the sand at the same time. This requires some practice.

Playing Hickory Golf

Ralph Livingston III is the best I have ever seen at these shots and he uses a thin-soled niblick, opening his stance and opening his clubface, and using just a little wrist hinge. He hits about an inch behind the ball and blasts it out like we do today. Ralph gets up and down more often than not! The key is you can't hit two or three inches behind the ball with your hickory clubs or the ball will stay in the bunker. You have to hit close to the ball and develop some skill at this shot. I play the explosion shot basically from a driver stance. I will use a shoulder-width stance with extra knee flex to stabilize my lower body and produce a shallow approach angle into the ball. I position the ball just off my left heel so I don't dig the club too deeply into the sand. Then, I use a half-wrist hinge, again to prevent coming in too steeply, and hit about one inch behind the ball with just a slightly open face. This gives me the best results of anything I have tried so far. Of course, you can always just try to avoid the bunkers!



The hickory golf sand shot can be quite challenging!

I will chip out of the sand if the lip is low and the hole is far enough away to allow for the lower flying trajectory. Play the ball back in a narrow stance and try to top the ball slightly. Keep your hands well in front of the clubhead with your weight a bit more on your left foot. Minimize your wrist action. If you catch just the smallest bit of sand before you hit the ball, you may have a second opportunity at virtually the same shot. Focus on pulling your head back and away to avoid being pulled down by the swing. Allow for an extra low trajectory.

Fairway Sand Shots

Don't practice this shot a lot as it has more of a tendency to break a shaft than any other shot, especially in cold weather or in a wet bunker. I take a club with a stronger loft than I need for a full swing and use no more than a three-quarter swing with the ball just a little bit more to the rear in my stance. I minimize my wrist hinge and focus on pulling my head strongly enough away so that I don't get pulled down and hit the sand before the ball.

Recovery from under a Tree

Typically I use a chipping motion with my driving iron for any really low shots that have to be hit under tree branches. This chipping motion limits trajectory and additionally I can play the ball as far back as the middle of my stance to hit the extra low shot that is sometimes called for. If I have more room, I will hit as lofted a club as I can that will still go under the tree limbs. You can use the pitching formula for distance through the air by simply adding 10 yards of distance for every four degrees of loft increase. So a pitch shot that was hit 60 yards with a 54-degree niblick by swinging the left arm back 90 degrees or parallel to the ground will go 70 yards with your 50-degree club, 80 yards with a 46-degree club, 90 yards with a 42-degree club, 100 yards with a 38-degree club, 110 yards with a 34-degree club, 120 yards with a 30-degree club, 130 yards with a 26-degree club, 140 yards with a 22-degree club, and 150 yards with an 18-degree club. This is carry distance through the air only. Obviously, a low hit shot may have some considerable run depending on the grass and terrain and you will have to factor this in as well.



Gene Sarazen

CHAPTER 8

Putting

Many of the same principles that apply to your short game also apply to your putting. Because the putting stroke is so short, there are many more possibilities for developing an effective putting technique than there is for your full swing. We will go over some things here that have helped me putt better over the years. I have putted extremely well with an open stance, but over the last few years I have experimented with a square stance. Both methods can work well and each has their own strong points. The open stance gives you a better look at the hole and the square stance levels out the shoulders and is more effective at relaxing the upper body and arms. I putt with my weight on my toes from an open stance, but when putting from a square stance, I like my weight on my heels because it relaxes my lower body more.

On all my other shots, the weight is on the balls of my feet with the distinct feeling of holding the ground with my toes. From this position, I can move my lower body quickly during the swing. I want my lower body stable during my putting stroke, however, and the weight on my heels makes it more difficult to move the lower body. Also, my arms and upper body are more relaxed when my weight is on my heels as opposed to my toes. For additional stability, I will flex my knees much more than on a normal golf shot. If you flex your knees too much on a full swing, you will severely restrict your body's ability to turn—not good for a full swing, but perfect for putting.

The legs and lower body must be trained to be very steady for maximum performance, especially on short putts and these adjustments put you in a good anatomical position to achieve good results. In years past, I had my left shoulder considerably higher than my right shoulder at address, but I felt this produced too much of an up and down path through the ball resulting in poor distance control so now I try to have my shoulders level or parallel to the ground.

In a full swing, the left shoulder is always higher than the right shoulder because the right hand goes below the left hand on the grip and both arms are fairly extended. In the putting stroke, I have more bend in the elbows than in a full swing and my right elbow is straighter than my left. Both shoulders are relaxed and down and I let my elbows move away from my body which moves my hands more inside to better start the putter back on the correct path.

This outside left elbow position is what Bobby Jones felt was so important to good putting and I think the reason why is that if the elbows are close to the body on your backswing, you will have a strong tendency to go outside the line, but if the elbows are

out at address, the club will tend to go back on a much better track. In high wind conditions, you may have to pull your right elbow against your side for better stability.

I like to keep my spine as straight as possible when putting, with my butt pushed out behind me just like a full swing. Many players prefer to hunker over the ball more by pulling in the butt and drooping the shoulders but I don't see the logic in this. I want my spine to allow my body to be able to freely rotate, like a car door on a hinge, not like a car door on a car that just hit a telephone pole. Plus, my shoulders feel more relaxed when my back is straighter and my rear end is out.



The Reverse Overlap grip was used by Harry Vardon, Bobby Jones, and Walter Hagen among many others and is still the most popular putting grip today among better players. I have tried every putting grip that I have heard of and it is my favorite as well!

For maximum coordination, you will want to flex the small muscle between the thumb and forefinger on each hand. This means that you should apply your gripping pressure with a squeeze of the thumb and forefinger of each hand. I use the reverse overlap grip that is so popular among better players. This is the same putting grip used by Harry Vardon, Walter Hagen, and Bobby Jones. The left forefinger goes over the fingers of the right hand in this grip. I like the left thumb and forefinger squeezing directly on the leather grip so it is easier for me to maintain equal hand pressure between my right and left hands. Feel that your right palm is pressing firmly against the grip and directly down your target line. Many players actually have a gap between the right hand and the grip. This will make applying consistent pressure to your ball at impact virtually impossible.

Hickory putters had a standard lie angle of 66 degrees where modern putters typically have a 72-degree lie angle. The reason for this is that in the hickory era the wrists were not arched as they are today. Horton Smith, who won the first Masters in 1934 and again in 1936, was known as perhaps the best putter in his day and he advocated arching the wrists with your putter in his book on putting—and who can argue with success! The arched wrist-putting stroke works especially well on fast greens, but is much less effective when the greens are slow. On slow greens, the arched wrist-putting stroke is not nearly as consistent as a lower wrist position on longer putts.

I actually prefer a somewhat lower wrist position for all my putts for a couple of reasons. First, my hands are more relaxed; just arching my wrists introduces tension into the wrists that I would rather not have. And secondly, my distance control is much



My slightly lower wrist position is in between the modern "arched" wrist position and the hickory era's very low wrist position.

better, especially as I move out into the longer ranges where a three-putt green becomes a strong possibility. This alone can save me a potential stroke or two in a round of golf! I formerly used a 35" putter with a 73-degree lie angle and now I have gone to a 33" putter with a 69-degree lie angle. This is definitely something to give some consideration to. A little experimentation can determine what works best for you.

I use five degrees of loft on my putter and that rolls my ball nicely, but just like the flat putter lie angles worked well for the lower wrist position for more power on slower greens, so too the higher lofts on the hickory era putters were a reflection of the longer grass on the greens that required more loft to roll the ball correctly. You will often times want to lower your hickory putter lofts as we talked about earlier to match your stroke.

Your dominant eye should ideally be directly over the impact point on the golf ball and your eyes should be parallel to the target line. If your eyes are a bit inside the target line, maybe as much as two inches, that is acceptable. If your eyes are too inside or outside the line, you won't get a good enough look at

your ball and putter-face alignment and consequently you will struggle to putt straight. Also if your eyes are too far forward, you will miss putts to the right and if your eyes are too far behind, you will miss putts to the left. It is really important to get your eyes aligned exactly right in the putting stroke.

Once your eyes are aligned correctly, you will want to rotate your head down the target line to see your line without tilting your head upright. Maintain your spine angle through the top of your head so when you rotate your head to the target, your right eye is lower than your left. Your left eye will give a more precise tracking of your line to the hole than your right eye. The right eye will track out and around due to its location in your head. I like to lightly close my right eye when I rotate my head to the target to get the most accurate look at my target line. I feel that my left eye is directly over a position 1/2" in front of the ball.

In teaching beginning golfers, the very first principle that we work on is leading with the hands during the putting stroke. We have talked about the importance of this in chipping and on the full swing and it is equally important when putting. Make sure your hands lead the clubhead through impact. Flipping at the ball increases the loft of

Playing Hickory Golf

the putter causing the ball to become airborne after impact. It is hard to get a good roll when the ball is in the air. And the ball will usually come up short. You will also tend to hit the top half of the ball and because you are not hitting the ball squarely, your distance control will be mediocre at best. The third reason this early release is not a good idea is because your resistance at impact is poor with this technique, again making distance control problematical.

The second important principle is to use backswing length to control distance just like you do on a chip or pitch shot. Experience will quickly teach you just how far your backswing needs to be. Monitor your backswing with your eyes to make sure you are on the correct path and stopping at the right point. Again, your hands must maintain a steady grip pressure for this to work.

Players who have the “yips” (an uncontrollable twitch or grip pressure change at impact that causes missed putts), almost without exception, do not maintain an even grip pressure during their stroke. Nearly all of these players will squeeze the grip with added pressure at impact moving the clubhead out of its correct plane. Often the golfer with the “yips” will anticipate impact because his eyes are glued steadfastly on the ball, and he will squeeze the grip at impact. This is just one reason I don’t like the idea of locking your eyes on the ball during the putting stroke.

I think it is a tremendous benefit to monitor your clubhead position on your backswing with your eyes. In much the same way that you control your moving car by keeping your eyes on the road, you can control your putter head by keeping your eyes on its “road”. On my practice putts, I will look at the hole and not the ball or club, as I am dialing in exactly the right feel for my upcoming putt. This



Use the length of your backswing to control your distance while keeping your grip pressure even throughout the stroke.

is another nice anti-yip remedy; putt while you are looking at the hole. You look at the target when you throw a baseball, basketball, or football. You look at the target when you fire a gun or shoot an arrow. Why look down when you are aiming at a distant target?

I burn a strong image of the hole and surrounding terrain into my mind as I am looking at the hole on my practice swings, so that when I look down to actually putt, I am still seeing the hole as I am monitoring my clubhead position on the backswing. It is like I am seeing two things at once. I think many people could improve their putting if they just looked at the hole when they putted. Certainly many players with an uncertain, short stroke would hole a much higher percentage with this technique.

I also like a sightline on my putter, because I like to hit an exact point on the ball with an exact point on the club. When I monitor my backswing with my eyes, I am actually just monitoring this sightline point. Walter Travis, the legendary amateur from the early 1900s who was renowned for his putting prowess, would feel that he was driving a tack into the ball with his putter at just the exact right point to hit the ball straight.



There are many potentially successful putting techniques.

My main thought during my putting stroke is to bend my right elbow on the backswing and to straighten the right arm through impact. This is the same move you make on a pitch shot or on a full swing, but many players swing the putter away with a straight right arm and then fold it through impact. This exact opposite motion will tend to bring the clubhead outside your correct path on the backswing when the right arm is staying straight and to shut the face at impact when the right arm folds on the forward swing. Golfers who have developed the “yips” may find some relief in the “folding and straightening right arm” swing thought because the focus on the right elbow will take attention away from the hands allowing the possibility for the grip pressure to remain constant.

The proactive straightening of the right elbow through impact can substitute for the involuntary twitch of the hands at impact. This twitch is often brought on by the straightening of the right arm on the backswing and the consequent feeling by the golfer leading up to impact that “something must be done” to move the clubhead into the ball and since the right arm has already straightened—and that is where you get your power on a full or part swing—something else must be done and hence the hands “twitch”. The hands were the last option. So now, the poor putting golfer can re-establish the power of the folding and straightening right arm to take the “pressure” off the hands so that he doesn’t “yip”.

There are four rotational possibilities for the forearms in the putting stroke just like in your chipping game or your full swing for that matter. The first and probably the most popular method is to have no forearm rotation during the putting stroke because the backswing length is so short that this would needlessly complicate matters. The second possibility is to reverse the forearms, closing the blade on the backswing and opening it on the through swing. Looking at the stroke two-dimensionally instead of three-dimensionally, you would be keeping the putter blade square to a straight line running through the ball and to the rear of your target line on both the backswing and follow-through. Like we mentioned earlier, Horton Smith putted this way and he was considered the best putter during his era. He wrote a book advocating this technique, along with the arched wrists.

The problem I have with this technique is that there really are no straight lines in your club’s path during the swing so you are reverse rotating your forearms to keep the clubface square to a manufactured or artificial path. If you swing a club “straight away” or “straight back” you have moved out of your ideal plane. It may be easier to visualize “straight back”, just as something in a two-dimensional plane is less complex and easier to understand than something in a three-dimensional plane, but it is inaccurate and misleading. The clubhead moves along an arc, your hands move along an arc, and the lower body and shoulders turn in a circular arc. To bring a club “straight back”, you will have to extend your arms on the backswing and fold them as you approach impact. This is the exact opposite of what you do in all your other swings. When your clubhead stays “square” to an arcing path, the face appears to “open” on the backswing from a two-dimensional standpoint even though it is square to the curving path you are swinging along. It is surprising how many golfers do not understand this simple concept.

The third possibility for forearm rotation is to rotate the forearms open on the backswing much as you do on a normal full swing and then to rotate closed on the through swing. As you might imagine, this can be inconsistent on the short putts that are so important.

The fourth possibility is the one that I prefer. In this stroke, there is no forearm rotation for any putts with a backswing of less than about 18”. For longer putts where the backswing exceeds 18”, the forearms rotate open at and beyond the 18” backswing point, and then they evenly rotate back to square on the downswing. This makes the longer putts easier to play.

There is very little shoulder turn in a putt, but the shoulders should turn at a right angle to the spine and not tilt up or down during the stroke.



Developing a consistent tempo with your putting stroke will pay off under the pressure of tournament play!

Tempo is very important in a good putting stroke and it is tied intimately to maintaining an even grip pressure. Many players snatch the putter back at the start of their stroke usually because they are exerting too much downward pressure on the putter at address. Lightly tap your putter on the ground before you putt and begin your stroke when the putter is off the ground so you can start smoothly. Just like in the full swing, the transition from backswing to forward swing is another opportunity to squeeze your hands and jerk the putter, so try to coast to a stop in the backswing and accelerate smoothly starting forward. A metronome can help you establish a good tempo. Most players find about 70 beats per minute ideal; I like 55 beats per minute. But the point is to do the backswing to one beat and the forward swing to the second beat. You can just keep doing backswings and forward swings to the beat of the metronome to establish good tempo. Experiment with some different rates to find what suits you. I have done this with a few friends who were good players and I found it curious that each player's favored tempo actually matches their resting heart rate!

I like to pace off all my putts just like I do with my chip shots. I think of all my shots in golf in terms of paces or yards. So I may have a 17 pace putt which is a 17-yard putt. I have practiced to achieve a nice one-yard stride and I will periodically check my paces against the listed yardages on a course to keep my paces exactly at one yard. Then I will factor in my 10% margin of error and on this 17-yard putt, I know that 10% is 1.7 yards or about five feet. My goal is get all my short shots inside two yards or six feet where the odds are on my side when I putt. If I leave this putt seven feet from the hole and then three-putt, it was the first putt to blame, not the second. If I roll my putt up inside three feet, I know that I achieved a margin of error percentage of 5%, which is excellent. I know I am challenged by a putt at 20 yards or longer, because I will have to perform at my best to avoid a three-putt possibility.

Bobby Jones' Putting Stroke

Bobby Jones was a great hickory putter; many consider him the finest putter under tournament pressure of all-time. Bobby advocated a very long backswing (however, his putter was very light so he had to have a long backswing). He had a beautiful flowing motion that looks very wristy compared to the compact strokes of today. We have already mentioned how our much faster greens and generally heavier putter heads of today have reduced hand and wrist action in putting to a minimum amount.

Playing Hickory Golf

If you want to try the wristy stroke of yesteryear, remember that Jones felt that he hinged the wrists on the backswing and then he let the momentum of the clubhead just swing forward without any help from his hands. This is not what it looks like when you view old film clips of Jones' putting stroke. It looks as though he flips his right hand at the ball, but in fact, he does not. It is a stroke that could almost be described as a double pendulum stroke (although a pendulum hangs straight up and down).

Jones swings his arms (hinging from his shoulders or a central point in his upper body) and then, additionally, he swings the putter's clubhead from the wrist joints. On the forward stroke, Jones just lets the clubhead swing on its own momentum with no additional help. The head, with more speed, passes the hands and makes it appear that Jones was powering the shot with a distinctive slap of the hands, but this is not the case. This is a great stroke under pressure because you just line up your putt, pull the club back, and then let it go. Gravity takes care of the rest! You are not forcing your hands and arms to do anything. Ben Crenshaw has a putting stroke that is quite reminiscent in many ways of Bobby Jones' putting stroke. This is an excellent putting stroke to try and it works very well with many of the lighter blade putters of the hickory era.



(Left) The hands are directly below the shoulders. The shaft and forearms form a straight line. Because the weight is more on the balls of the feet, there is plenty of room for the hands to swing past the legs on the correct plane. I prefer my eyes just inside the line of the putt. (Right) My slightly open stance gives me a better look at the hole.



Joyce Wethered
Bobby Jones considered her the best player he ever saw.

CHAPTER 9

The Mental Game

I often think that the mental side of golf is one of the least understood areas of good golf. There are some people who think that their “mental game” is what is holding them back, yet I think it is their poor technique that limits their potential for a good score on any given day on the golf course. These people lament that they have no confidence when they play golf. Well, if 90% of your golf shots are fairly mediocre, how can you expect to have any confidence? Good shots breed confidence. If 90% of your golf shots are very nicely played, serviceable golf shots, you should have confidence. If your technique produces a low percentage of good shots in any part of your game, you’d have to be crazy to be “confident” when you step up to one of these shots. Your feelings of unease are trying to tell you something: you need practice or a technique change or both! With that being said, there really is a lot that can be accomplished in the “mental game”.

There is a vibration that comes from your emotional self called “feelings” that you emit as you play golf. This emotional vibration resonates with other similar vibrations. This resonance between vibratory rates attracts those that are similar to each other. This resonance works on a mental and physical plane as well, and in a four hour round of golf, your emotional vibratory rate will quickly resonate with mental and physical experiences of a similar vibratory rate.

Here are two good examples from my own experience that I think everyone will be able to relate to. In the first example, I’m not in a good “frame of mind” as I tee off,



some things are bothering me and I don’t really “feel” good at all. I hit a great tee shot, but I’m not impressed or happy. I hit an excellent iron into the green and almost make birdie, but this doesn’t improve how I “feel”. Soon my sour attitude has led to a multitude of bad shots and “bad luck” and my score at the end of the round is one of my worst of the year, even though I started off playing great.

A good frame of mind is essential not only to playing your best golf, but also to enjoying it as well!

In my second example, I am playing golf with some good friends and I am feeling quite good and I have already

decided before I tee off that nothing is going to change my good feeling on this day—I don't even care how bad I might play! So my friends arrive and I hit a horrible tee shot, my worst of the year, but just laugh it off because nothing is going to bother me today! I hit a poor second shot but again I give that no weight. I am "lucky" to make a 10-foot putt for bogey. By the end of my nine-hole round, I have had a great time, regardless of my score, but I have made four birdies and scored three-under par, one of my best rounds of the year!

In both cases, my emotional vibrations set up a resonance of attraction to other like vibrations in a mental and physical plane. This is what good players mean when they say they are just going out to have "fun" while they are playing golf. Oftentimes, tournament golf can be anything but "fun". But the point is that if you let a bad experience on the golf course affect your emotional equilibrium, you can be in for a long day. This is why seasoned tournament players tend to show so little emotion when they play. They are attempting to maintain a frame of mind that will produce their best golf.



Don't dwell on the shot that got away, get over it quickly, and be ready to focus 100% of your efforts on the next shot.

Don't let a bad shot change your frame of mind into something that attracts more disaster! Walter Hagen was the renowned hickory golfer who dramatically changed the image of golf professionals for the better in the 1920s. Walter won the PGA for four straight years, from 1924 to 1927, when the tournament was contested in a match play format. He was known for being unflappable in pressure situations and his philosophy was that he knew going into any round of golf that he was going to hit six bad golf shots, and so he would take these shots in stride, knowing that a good shot would follow the bad one.

When Walter would hit a bad shot in competition, he would often unnerve his opponent with his apparent lack of concern over his error and then follow that up with a brilliant shot or brilliant series of shots. He had a realistic view of his own abilities and used his "mental" game to the utmost. Take a tip from Hagen and realistically appraise your game to determine how many "bad" shots you typically hit during an 18-hole round.

Say you hit 15 poor shots. Resolve to take these in stride and play your next shot with your full focus. It is generally not the first bad shot that really ruins a golf round, but the several follow up shots that are hit with less than full attention. If you give all your golf shots 100% of whatever level of focus that you may be able to muster at the moment, then that is all you can realistically ask of yourself. Any perceived shortcomings in your game are due to less-than-perfect technique and inadequate practice, both of which can be resolved if you choose to put the effort into this endeavor. Harry Vardon had a favorite saying, "No matter what happens, keep on hitting the ball."

I had an early experience in my golfing life that reinforced this idea. I decided to try out for my college golf team as a freshman and a meeting was scheduled for all prospective players who were interested in playing for one of the five spots on the varsity golf team. When I arrived at the meeting, the room was overflowing with golfers, over 70 in all, who wanted to be on the varsity golf team. I was somewhat overwhelmed at the number of players, I was only a freshman and there were sophomores, juniors, and seniors, all of whom probably had more experience than I had. After all, I did not even make my high school golf team!

But I signed up for the tryout anyway, hoping for the best. When the early spring day arrived for us to play, it was quite cold with a stiff north wind gusting to 30 mph and temperatures hovering near freezing. Only about half of the people who signed up came out for the tryout because the weather was so bad. My foursome teed off last and I was nervous and cold and was not playing that well, but neither were my three playing companions. After a few holes, the wind picked up and it started to snow lightly.

At the turn, two players in my group decided they had had enough and they headed for their cars. My playing partner and I finished the round with neither one of us shooting any kind of good score. Disgusted with his play, my playing companion tore up his scorecard and headed to his car in the parking lot.

I decided to at least go inside and turn in my scorecard. When I got inside, I handed the coach my scorecard and he said to me, "Well, we now have five scorecards turned in today, so that will be our team!" Like Harry Vardon said, "Just keep hitting the ball"! Later that year we won a 10 team invitational tournament against some pretty good teams. We had five players who always kept hitting the ball!

Even though you try to maintain an emotional equilibrium, you will have a flow of emotions during a round of golf. If you try to "control" or block this flow, it is akin to plugging the drain in the sink with the water running and trying to stop the water flow by covering the spigot with your hands! Soon you will have an overflow. These are the golfers that "explode" on the course. This can be potentially entertaining to watch, but not something you want to experience personally.

Unplug the drain and let these emotions vent. You need to "clear" after every shot, so you are ready for your next swing with no left over residue from the previous shot. Along this same line of



Keep hitting the ball, even if it seems to be an uphill climb!

thought, you must allow your body to “play” golf and not “order” your body to do this or do that. Often, your subconscious knows how to produce the shot you desire without any conscious thought on your part. This is known as “being in the zone” when your conscious mind is thinking nothing and it allows your subconscious mind to perform.

More often, the golfer sets up a conflict within himself with his conscious mind insistently demanding one thing from his body while the subconscious mind knows how to do what you want and yet is thwarted by “demands” that run counter to what it would do. There is a delicate balance between your conscious and subconscious mind that must be achieved. The conscious mind must help program good muscle memory for improved technique and performance while not interfering with the subconscious mind’s ability to produce your desired result. That is why you are most effective playing golf with one simple swing thought. A simple swing thought while you play will occupy your conscious mind and at the same time allow your subconscious mind to do its job.

A great example of this came at the 2001 Region 4 Hickory Tournament at the Grapevine Golf Course near Dallas, Texas. I won the tournament while “toning” the entire round; shooting a nice, smooth 71 on quite a tight layout. Toning is like whistling except you use a steady tone. The toning took my conscious mind out of the picture and put me “in the zone”. When you are practicing, you can layer three, four, or five swing thoughts together and this can help you get the “feel” of the desired technique and to ingrain new and improved swing habits, but this doesn’t work on the golf course because here it is all about results and making the ball finish near or in the hole, not about building a more consistent swing.

A great deal of the mental game is preparation and strategy. Before an important round, I always try to get a good night’s sleep, say about eight hours, more if I feel I need it. I also try to get a good breakfast so I am prepared to have as close to 100% of my attention on the golf game as possible. It is interesting how many golf rounds are less than they could be because the golfer didn’t get enough sleep! I try to make sure I



Your choice of strategy can end up making a significant difference in your score at the end of the day.

stay hydrated during a hot round because coordination levels fall off dramatically when an individual starts to get dehydrated. Of course preparation can start far in advance of this with dedicated practice sessions and adherence to a solid diet and workout schedule.

Strategy is a huge part of your mental game and there is a premium on course management with hickory clubs because you are not generally going to overpower the golf course. A large part of strategy is picking your aiming points. Many games are won or lost based on where the

golfer aimed. Allow for a realistic margin of error off the tee, taking into account any tendency to miss in a certain direction with each particular club that you have in hand.

I will figure that on my 270-yard drive, I need a landing zone 54 yards wide (10% error). I will try to place this 54-yard wide area so that it fits safely within the landing zone and then aim in the middle of this area. If I can't make a 54-yard wide area fit within the landing zone, I will consider hitting a shorter club. I only need a 40-yard wide area with my 200-yard club. I try not to aim at a point that I cannot fit my landing zone safely into. This goes for woods and irons. A good golf course architect will provide landing areas for middle and higher handicap players, so they can play golf without losing their golf ball all the time. Good strategic design will also offer different routes to the hole depending on your level of ability and how much risk you would like to take. Look at the course from the designer's standpoint to see what he had in mind and how that can fit into your strategy for playing the hole.

Club selection is another important element of strategy. It is common to see a hickory golfer with a club in hand that almost guarantees a poor outcome. It took me years to realize that being 300 yards from the hole in the rough does not call for a full-blast swing with my spoon, but rather two controlled short irons of 150 yards each. Even if I hit the spoon perfectly, I still need two shots to hit the green but I risk hitting into a situation where I am worse off than I started. Here is a great example from the 2004 Canadian Hickory Championship. I am three under par playing my 34th hole of this 36-hole championship when my marginal drive bounces into the right trees. I am figuring that I have the lead in the tournament, but not by very much. I need a strong finish to win the tournament.

I get to the ball and I have a good enough lie, room for my stance and a swing but only a very narrow gap through 30 yards of trees. I know I can make this shot if I hit it exceptionally well. If I am slightly off, the ball could ricochet anywhere. I can clearly see the possibility of the ball bouncing backwards into an unplayable position where I could easily make a seven or an eight. I'm about 160 yards from the hole and even if I hit the ball perfectly through the narrow gap, I will still likely need to get up and down from about 30 yards. There are no other suitable openings, I can chip out straight to the side but I really don't like to do this, I always like to improve my position and at least get closer to the hole. I calculate my odds at pulling off the really difficult shot at about 50% with no guarantee of par.



Don't panic when you're in the trees!

There are two holes left after this one, so a dropped shot could be made up for with a late birdie. I am more than a little nervous and this can really affect my precision late

in the day. I decide to chip straight to the side, leaving myself 160 yards for my third shot on this par 4. I hit my spade mashie on the green and make an excellent, uphill two-putt from 50 feet, holing an eight-footer for my bogey. I par the last two holes and find out that I have won by two strokes. Two strokes that I likely saved by not attempting the risky shot through the trees! I try not to attempt shots that I feel I can't at least pull off 50% of the time.

Your lie dictates the options that are available to you on your next shot. Evaluate what club you can safely hit out of a given lie and then don't change your mind if you need more length to get to the green. It is better to chip to the green from a spot 30 yards short than attempt a second full shot out of rough only 10 yards closer than the first! The same applies to your short game; you can't do well with a flop shot when the ball is on hardpan.



Know when to lag those fast, downhill putts!

I always look at where I would like each of my shots to end up and play into those positions. This is easiest with putting. You do not want short side-hill putts or testy downhill putts on really fast greens. You want your short putts to be straight and up the hill. Play to finish in the correct position on your lag putts and guard against the bad leave on putts that you can make. When approaching a green, stay below the hole. All your shots are easier when they are uphill. When I am between two clubs, I will usually take the club that leaves me on the low side of the hole (usually the shorter club). There is virtually no up-and-down from some positions

around a green. Know where these positions are and do not let yourself finish in these spots. Most greens are high in the back and low in the front. When playing a course for the first time, it is excellent strategy to aim for the front edge of all the greens where chipping and putting will likely be uphill and relatively easy.

Another element of good strategy is to utilize your time on the golf course as effectively as possible. In a four-hour round of golf, you should strive for a high ratio of practice swings to actual swings at the ball. A ratio of four to one would be good. Your practice swings are often technically more correct and this will ingrain your good habits more quickly. Your "practice swings" can also be swings that you take in your mind only as you are walking down the fairway. This has been demonstrated to be as effective at showing improvement as the "real" thing! Never take a practice swing without a purpose. Loosening up is one obvious purpose, but your practice swings should instill muscle memory that will improve your technique. Create a "customized practice swing" for yourself that addresses the swing issues you are working with.

Evaluate your golf swing at the conclusion of each shot. Freeze your finish position and look for clues to what your golf ball did in your finish. Your ball flight and finish position are your two most valuable areas of feedback after your shot. Evaluate each round of golf that you play. I look at my driver and brassie shots, my iron shots, my

pitches and chips from inside 50 yards, my bunker play, my lag putting and my short putting. Always work on your weak areas first. If you missed several three-foot putts, work on those. If you sliced several drives badly, work that out. If you missed a bunch of putts, don't work on the driver that you were hitting long and straight!

I always like to feel that I am prepared to win AND prepared to lose in any tournament that I am teeing off in. Many golfers are prepared to lose, after all, there are usually a lot of players and the odds are not in your favor. But what if everything is coming together for you? Can you take advantage of good breaks to post a good score? Many players are not prepared for this possibility and self-destruct so that they are "comfortable".

There is often a comfort zone for your scores in which you feel comfortable shooting 80-85, for example. If you suddenly realize that you are on pace to shoot 75 with three holes left, it is not unusual to see a bogey, double bogey, double bogey finish for an 80 total—right in the comfort zone! Prepare yourself mentally to accept some good fortune and take full advantage of it. If you play enough golf, it will happen. On the other hand, golf is a difficult game and every golfer has had days when nothing seems to go right. Nobody judges great golfers by how poorly they do. Nobody makes a tally of how many poor showings Bobby Jones had; they just count up his victories. Nobody asks you how many triple bogeys you have made in your life, they just want to know how many holes-in-one! Learn from your poor showings and devise a strategy to improve.

Play with the feeling that you have no pressure on you to perform well. Feel that you have nothing to lose, because you really don't! In tournament play, a player will often become "hyper-aware", where things he previously took for granted are now capturing his attention. This is where you need a detailed pre-shot routine that will take you through any nervousness without distraction. You should be intimately aware of every detail of your pre-shot routine so that once you have started; it is almost like you have started the swing itself.



Half of a good player's shots are putts, so practice accordingly!



The pressure of tournament golf can be overwhelming if you are not mentally prepared to deal with it.



Eddie Lowry and Francis Ouimet