

GOLF

A CONCISE DESCRIPTION

BY

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THESIS

PRESENTED TO THE CANADIAN PROFESSIONAL GOLFERS'
ASSOCIATION IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS
FOR

MASTER PROFESSIONAL

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INTRODUCTION

The purpose of this thesis is to present my collection of information and experience as a Professional Golf Instructor.

I will develop my method from the facets of golf that provide its' appeal, to the basic information required by an instructor. There will be discussions of my teaching method including how I communicate information to the student. The thesis will outline my basic lesson substance forming fundamentals with which to learn how to develop a sound, repeating golf swing.

Included is a brief outline of my teaching Method for instructing Pitching and Chipping, Sand Play, Putting, Faults and Cures and Course Management.

The format of this thesis is to introduce a subject, expand upon it and then summarize. Golf is one of the most analyzed of all sports. For every presentation of a theory it seems as though five others refute it. However, to fully understand the material in this work, an acceptance is required. This is an acceptance of the "Ball-istics" that occur as a result of the collision between the golf ball and the golf club face.

Upon impact, the ball "skids" up the club face. This motion imparts a reverse turning action to the ball, called "backspin". When the ball drives forward this spin has no effect on the trajectory of the ball until it (the ball) begins to lose speed.

As the ball flies forward, the backspin action creates a vacuum above the ball. When the speed slows, this vacuum draws the ball into it, causing the trajectory to appear to be a straight line off the club face and then rise slightly before falling straight down.

When a sidespin is imparted the ball is drawn into the vacuum created on the side of the ball. This sidespin action causes the familiar trajectories called hooks and slices.


It should be noted that unless the ball is contacted with the "leading edge" of the club above its' equator, some backspin is always present.

These fundamental results occurring by a course of nature, permit us to appreciate the type of swing technique required to produce quality golf shots.

Please find my enclosed thesis and Master Examination as application for the Canadian Professional Golfer's Association's category of Master Professional.

I sincerely hope my project fulfils your expectations.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Michael Schurman", with a flourish at the end.

Michael Schurman.

THE BEGINNING

Outdoors The feeling of the word as you let it slowly sound, describes freedom. Enjoyment of the elements whether it be in the hot sun of Australia, the light tropical breezes of Fiji, the crashing surf of California, or in the damp winds of Scotland, outdoors is freedom. For over four hundred years people have been imprisoned, earned ulcers and rejoiced due to golf.

Golf today, offers the average player an opportunity to escape the drudgery of the daily routine. Business people can leave the pressure of their offices for a one day vacation, while they enjoy the challenge of a golf course of their choice. Since every course, every hole, every shot and every swing is unique, variety becomes one of golf's characteristics. Challenge for any person can be found in golf, as it offers its gauntlet to each of us at any standard we wish to accept. However, as is true with almost every human activity, the friends we gain through golf are of greater importance than any other benefit offered. This great game has a family appeal that no other sporting activity has. Parents can enjoy their children, husbands and wives relax together and all while each can look into the personality of the other by the virtue and integrity by which golf can be played.

Flog Golf is only the word F-L-O-G spelled backwards. Flog is exactly how a player will play without the proper beginning. In learning to write, a person is subject to the level of perfection demanded by his instructor. Given the basics of correct form there is no need for poor penmanship other than a low standard of acceptance. Skiers wouldn't think of advancing to a mountain without some very expensive equipment and some expert instruction. A golf swing is no different. In its beginning physical form is as fragile as a spring blossom, but is driven with the mental desire of a jackhammer. Without delicate moulding, much of the fun will never be realized by a new player. A knowledgeable C.P.G.A. Professional would encourage a new golfer to own their own club (a #5 iron) that includes adjustment in grip size, shaft flex, lie and swing weight. These are all ingredients established through physical requirements and each will allow the player to build a correct golf swing. Proper footwear is also essential. Time and care should be taken to inform the patron of the benefits found in a quality golf shoe

i.e. support, comfort and endurance. As the player advances, the Professional will add to the player's equipment, by adding a "full" set of clubs that "fit" and a bag.

Due to the difficulty in learning a "motor skill" (a golf swing) a new player is advised to be introduced to golf through group lessons. It is at this time that the instructor can best inform the students about golf etiquette, the responsibilities of his/her pupils to themselves (practise) and the responsibilities of the teacher.

New players should learn about repairing "ball marks", replacing divots and raking bunkers. Proper attire and playing without delay need to be stressed. Other players are entitled to an atmosphere conducive to concentration while they execute a shot.

The student owes the instructor attention, promptness, practise and questions. While the instructor is responsible to be prompt, knowledgeable and dedicated.

SUMMARY

1. To make significant development a student should seek quality help.
2. A student should enlist the services of a qualified C.P.G.A. instructor to obtain properly "fitted" golf clubs.

P R E L U D E T O T E A C H I N G & L E A R N I N G

Physical

There is a place for a basic understanding of Physics in golf. The instructor requires a complete knowledge of the laws of motion, momentum, rotational motion, leverage and Kinetics. Found in these subjects are some of the great joys golf offers, including a capacity to know why the "swing" works, and how it can work for different people. The subject of science will probably not interest a very large percentage of a professional's pupils, but an explanation of some very simple occurrences can assist the learning process greatly.

Some of the petty examples that provoked the Greek philosophers were "why did a wisp of smoke from a fire drift irregularly upward?" and "why did a stone released in mid-air promptly move downward?" Aristotle developed a theory that "every kind of matter had its own natural place in the universe." He explained by saying, "If every earthly material got as close to the centre as possible, the earth would have to be spherical." These theories provoked other men who also developed theories. Galileo, who analyzed the increasing speed of an object in motion which we call acceleration (from Latin words meaning "to add speed.") Perhaps the most significant contributions came from the English scientist Isaac Newton, who left us with three very important laws of motion.

1. An object remains at rest or maintains a constant speed in a straight line unless it is acted on by an external force.

Application: A golf ball will rest on a tee until it is struck by a club.

2. The acceleration produced by a particular force acting on an object is directly proportionate to the magnitude of the force and inversely proportionate to the mass of the object.

Application: When a faster and heavier club contacts a golf ball, the farther it will travel.

3. Whenever one object exerts a force on a second object, the second object exerts a force on the first object. These forces are equal in magnitude and opposite in direction.

Application: When club head strikes a golf ball, the force (speed) of the club head is equal to the force of the golf ball (resistance)

which causes a collision. If the ball were the end of a steel pipe sticking out of the ground, you would very quickly learn about "collision." However, without this resistance the energy (speed) of the club head is transferred to the ball and away it goes.

One of the most important facts that we know and will refer to later, is in relation to momentum. The longer a force acts on another the more energy is transferred.

Application: The longer (time lapse) we can keep the golf ball on the club face at impact the larger the amount of club head speed we can transfer to the ball.

ROTATIONAL MOTION

Rotational motion is probably our most misunderstood subject as golf Professionals. It is not difficult to comprehend, but seems to be ignored by the influence of human emotion on the swing. A point on the rim of a turning wheel is moving at a certain speed, a point closer to the centre of the wheel is moving at a speed still slower. The precise centre of a turning wheel is motionless. Therefore, to say that a wheel turns at so many feet per second, is meaningless, unless we speak of an exact portion of the wheel. Although various points on a wheel might move at various speeds, every point on the wheel completes a revolution in precisely the same time frame, since the wheel rotates "all in one piece." To solve this dilemma we calculate the speed of rotation in "revolutions per minute." (R.P.M.'S)

Application: By finding and holding a centre in the golf swing we can achieve speed with the club head. By keeping the club at a maximum distance from this centre, it can reach a maximum speed that is greater than any other part of the golf swing.

TRANSLATIONAL MOTION

It takes a force to set an object at rest into rotational motion and translational motion (the tail of the plane flies at the same speed as its nose.) We are primarily interested in the rotation of a wheel when it has a fixed centre or "torque" as it's called. Torque is the force multiplied by the distance (or length of radius/spokes of a wheel.)

Application: The faster the body spins around its centre during the swing, the faster the spokes will turn and the more speed is generated in the rim.

LEVERAGE

Our second to last necessary piece of basic knowledge is an understanding of leverage which quite simply is "any rigid object capable of turning about some fixed point called a fulcrum. However primitive this invention, Archimedes' statement, "Give me a place to stand and I will move the world," is true.

Application: One lever in the golf swing is the golf club. Its' fulcrum lies at a point immediately "down" the shaft from the grip. Leverage occurs when the hands and wrists pry on the grip "during the hit zone" pulling it over the fulcrum and making the club head travel faster.

KINETIC ENERGY

Lastly, we look at "Kinetic energy." The study of the amount of energy contained in a body moving at a certain speed. Quite possibly, this study is not totally important in the teaching and learning of golf but carries great importance in the proper fitting of equipment.

Application: The distance a certain swing will project a ball is affected by the weight of club, weight of the club during the swing (swing weight), length of the shaft and many other similar variables. The "goal" is to develop as much potential energy in the moving club head and transfer it into the golf ball.

MOMENTUM

This returns us to "momentum." Beginning with an empty golf shaft (no head) a player can generate a certain rate of "club head" speed. This speed, although very fast would not propel a golf ball very far. By loading this empty shaft with small increments of weight, a golf ball would be propelled farther with each weight addition. However, with each addition the club head would travel more slowly. At some point (different for each player) the weight would be exactly "matched" to the club head speed to propel the ball to its longest flight. An addition of weight at this point would cause the club head speed to decrease to such an extent that "momentum" would be

affected and the distance the ball is propelled would decrease.

An understanding of these principals is necessary for any teacher of the golf swing. If he/she doesn't know what causes the swing to work, how can he/she develop a method?

Psychological Ingredients for a Teacher

The golf student must be led through a preparatory induction period to "set him/her" for the receipt of information. The pupil shows a readiness just in his action of "taking" instruction. However, a basic understanding of some of the psychological needs of the student can increase the net value of the instruction, times over. People retain a very small percentage of the input they absorb. If they were in a state of mind that removed some of their "resistance" to receiving new information, a teacher could be more effective. Probably the most difficult position to assume during a communicating environment is that of "devil's advocate." (Why do we do it that way?) A successful instructor will have hundreds of comparisons, descriptions, explanations and "short-cuts" in his method, all acquired through experience. These avenues are necessary because every student is different, every lesson is different and learning environment is different. Both people (teacher and student) will begin the lesson from a different frame of mind. The teacher may be tired, hot, having problems at home etc. and likewise so might the student. The starting level (how much does the student already know?) must be established. How much did he retain from the last lesson? Many factors have an influence on the lesson and therefore the requirement that the teacher be well versed in many fields of expertise is strong.

The Professional should try to calculate his student's "self image." How much does the student think he can improve? At what level does he think he is at now? How much effort is required on the part of the student? All are questions that will influence your own manner in which you approach the lesson and determine the success or failure of the information. People who think of themselves as "silly," do "silly things." Those who are made to think that they can be better golfers by following certain criteria, will become better golfers. Of course, the converse is also true, people who

think they are limited will, in fact, be limited.

People are not machines. They have a machine. It is divided into two parts. One part guides us in a direction to achieve certain goals, or make correct responses to an environment. The second part solves problems and provides new ideas. As an instructor, it is our job to relate our subject matter to the students' "second part" in such a manner that he will understand well enough that they penetrate his "part one." Of course, this takes many months of dedicated practice and applies only to a few very talented players. However, golf offers a great deal to every player and at every level. The instructor's responsibility is to seek out the student's current level and make him progress as far as possible, with as much fun as possible.

THE FIRST LESSON

In the beginning of every new student/teacher relationship, a brief talk should begin the first lesson. In it there should be a discussion about the basics of physics, an outline of what you can do for the pupil and over what period of time. After a brief outline of a description of your method you should introduce a series of "still photographs" that indicate the correct positions the body will assume during a correct golf swing. These photos serve to permit only positive thought patterns and establish a general guideline of your expectations to the student. Plus, "a picture truly is worth one thousand words." In trying to determine the child's thoughts, (see Photo #1, page 14) make an attempt to imagine different facial expressions.

You will no doubt be able to imagine that the child could be thinking many different things. The purpose of this exercise is to illustrate the effectiveness of a picture. How could you ever begin to describe the child's expression accurately but a photo accomplishes it perfectly.



PHOTO #1

The best examples of positive thought come from Ben Hogan and Jack Nicklaus, who both claim they imagine the "feeling" their body will undergo to make a certain shot, prior to making it. In fact, Alex Morrison (well known instructor) was able to reduce people's scores by having them practise "mental pictures" without leaving their easy chair. Morrison's theory was "when you see a thing clearly in your mind, the "creative success mechanism" within you takes over and does the job much better than you could do it by conscious effort, or "will power."

A person can follow some simple steps that will greatly assist his improving: 1. Do your worrying before you place your bet, not after the wheel starts turning.

Application: Be prepared, practise hard before the tournament or game.

2. Respond to today only.

Application: Don't live in the past or future. Apply yourself to right now only. If a swing failed or was successful, forget it. Prepare for the future, but don't live in it. 3. Select items and goals you'd like to accomplish and

work towards them by concentrating on each one, one at a time. Don't try to do several at the same time.

Application: Attempt only a limited number of swing ingredients in each swing. (one or two "key" things) Note: It is possible to use different "keys" for different shots or even different days.

We will learn that not everything we do will be successful. So to combat the inevitable feeling of frustration, understand that only "longer term goals" are worthy. "Doing" will never meet our intentions. However, if chronic frustration persists, perhaps a re-evaluation of our goals is required. Are they attainable and necessary? Being a perfectionist is a fine quality, but only if perfection is required or will enhance the product.

"That winning feeling" has come over such greats as Dr. Cary Middlecoff, who felt he would win the Masters several days before he did. Don Larsen pitched the only perfect game in World Series history, dreamt he would do it the night before. Sometimes, everything happens in a manner that is beyond your wildest expectations. It just plain "happens." So why not try to imagine success all the time and perhaps the difficult times won't be so difficult.

I have heard Jack Nicklaus say many things about many difficult situations. After the 63rd hole of play on a very tough, rough lined course, while playing excruciatingly fast greens or about seemingly sidehill pin positions, Nicklaus said, "I made a birdie, he bogied and I felt the game was on." Nicklaus is so well prepared that he thrives on demanding situations. I heard him say about Watson's chip to win the Open, "that's what separates the men from the boys." The point being, it is tough for everyone, therefore, reach down inside yourself and use those hours of preparation. Be patient, but keep trying.

T H E M E T H O D

I never teach any part of my method to anybody unless I first give them my basic analogy of the swing. I have tried on occasion to "skip" past it or assume the recipient understands my direction and inevitably I have encountered problems.

Before a person can strike a "perfect golf shot," he requires a mental picture of what it looks like and what does the swing that produces it, look like. There are millions of swings and millions of theories, so in order that you and I can communicate we must establish "common ground." The picture I use is that of a wooden carriage wheel. As a horse drawn carriage moves along on its two wheels, both fastened to an axle, I remove the wheels and axle. I detach one of the wheels, leaving an axle attached to a wheel. I rest the end of the axle on the ground so that it has the wheel leaning on an angle. The axle is made to be permanently stationary. A five iron head is fastened to the outer rim of the wheel. It would be possible to adjust this apparatus to revolve and cause the head to strike the ground in the same place everytime. The apparatus could also be adjusted so that by placing a ball on the spot where the five iron head strikes the ground everytime, a perfect shot could be struck.

The Perfect Shot

Note: A perfect shot is one that is struck solidly on the club face, along the chosen line and on the proper trajectory. These are the three and only fundamentals of a golf shot. Any other ingredient is simply a contributing factor to attaining one or all three of these or an ingredient that is necessary to perform a specific kind of shot.

The apparatus (the wooden carriage wheel) is entitled to hit perfect golf shots because it contains four necessary items.

- a) It will be aimed in the proper direction.
- b) The distances from the hub to the ground and the hub to the ball remain constant.
- c) There is expansion of the radius.
- d) We add a correct grip.

As we relate the apparatus to the parts of the human body: the hub represents the chin; spokes, the arms and club; the axle, the body and the rim, the path traced by the club head. I have a bicycle wheel hub fastened to a stand that is a replica of this wheel and is very effective at speaking engagements and lessons. (See Photo #2)

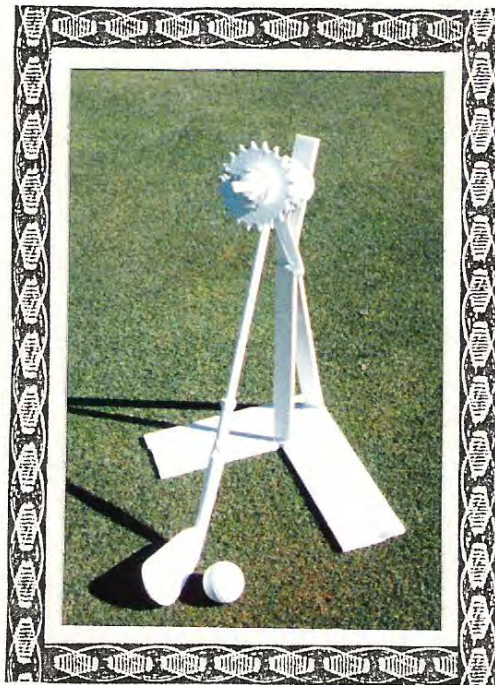


PHOTO #2

The Stations

My students are now shown three still photographs for study.



PHOTO #3
The Finished Follow Through

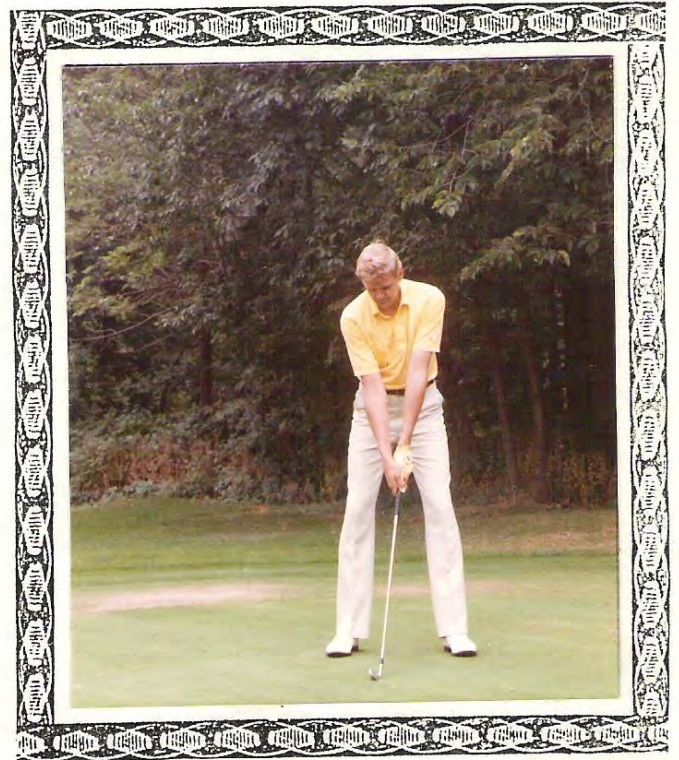


PHOTO #4
The Address



PHOTO #5

The Full Back Swing

I teach them in this order because I have found that people could not accept the tedious regimentation of learning the grip and stance that are historically taught first. We study the follow-through as it is the ultimate goal in a sound swing. The human body will by-pass many errors and difficulties if it knows where to "end" the swing. Our "follow-through" exercise is introduced at this point and consists of making any address position you can form (grip included). We slide the club head forward toward the target with your top hand dominant (left hand for right handed players) (both hands are on the club) until it is held in a high and extended position, arms pointing skyward. The player is turned (belt buckle pointing at the target) arms fully extended, weight on the front foot (left foot for a right handed player) favouring the toes not the heel or outside of the foot and basically this foot is flat on the floor. When the exercise is performed there are three essentials: 1. As the club is swept forward and the transfer of the weight onto the front foot occurs, the weight moves off the back foot (right foot for right handed players) by moving simultaneously onto the ball of the foot,

heel of the foot and instep of the back foot. This is very important as it establishes the eventual pattern of movement of the legs and body for the down swing (into the ball, rather across the intended line of flight). 2. The fully finished position, reached should be held for a two second count while staying in balance. This allows the mind to photograph the position which will make it easier to attain during the complete swing. (See Photo #3)

The Set-Up

Next, I introduce the correct set-up as an exercise. We stand about shoulder width apart from the centre of each foot, this is because we are using a five iron which is in the centre of the set of clubs. (See Photo #6)

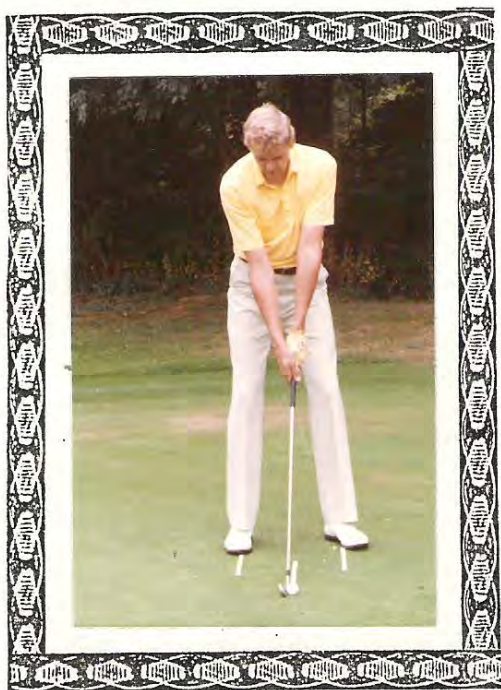


PHOTO #6
5 Iron Width

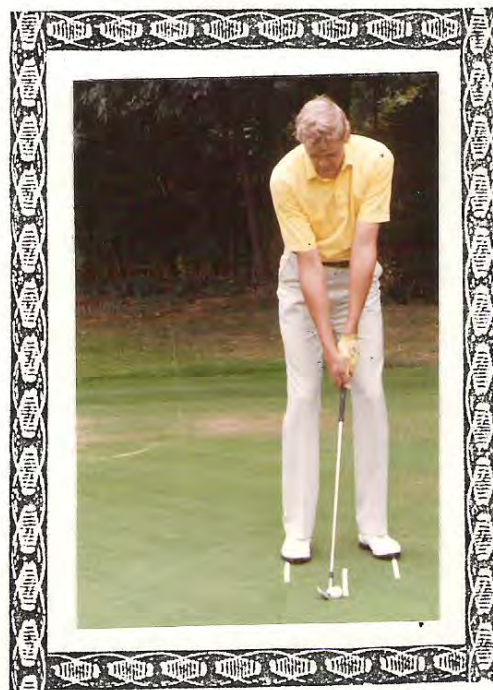


PHOTO #7
P.W. Width

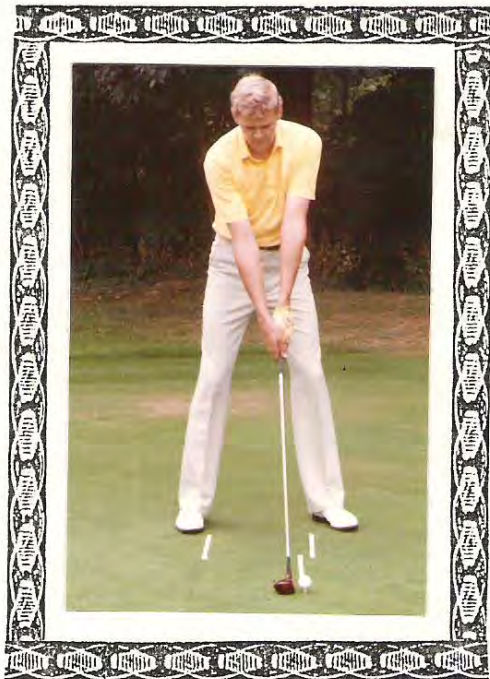


PHOTO #8
Driver Width

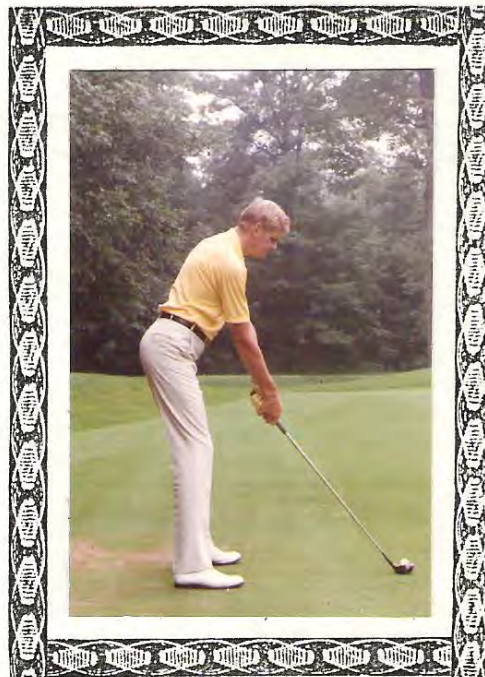


PHOTO #9
Chin off Chest
Knees Flexed
Butt Sitting Out
Past Heels

With a driver we stand shoulder width instep to instep and pitching wedge shoulder width from the outside of each foot. In addition, I explain that the ball is placed in the same place relevant to the heel of the front foot for every club. (See Photos #6, 7, 8) The player must stand as tall as possible, his chin vertically as far from the ball as his arms can reach. He will have a slight bend at the waist and some at the knee also. His posterior will protrude out beyond his heels, (See Photo #10)



PHOTO #10

and the chin is up off his chest so that the shoulders can turn under it. The arms will be in an extended state not reaching, not stretching or rigid so that the ball is as far from his chin as possible. These extended or full positions of the distance from the chin to the ground and the chin to the ball will be the most uniform and easiest to repeat.

THE MOTION

The top of the back swing is the easiest to establish since the brain will only allow a certain parameter in which to place the club using the proper address and knowing the proper follow through. I allow the heel of the front foot to leave the ground providing the pattern of movement comes as "onto the heel, ball of foot and instep" together. The back leg (right leg for right handers) is not permitted to straighten and the back pocket (right front for right handed players) is encouraged to turn or rotate away from the target. The full back swing exercise when reached should be held for a count of one full second. Reason being that during the actual swing we only want the club to "hit" this station.



PHOTO #11

We want to "hold" it in the follow through and by sending this message to our brain we facilitate success.

HOLDING THE CLUB

Golf is a back-handed, left-handed swing, for a right-handed player. That is to say that the grip will be dominated by the left hand and the sensation during the impact zone is that the back of the left hand is extending toward the target.

To form the grip, I lay the club across the left palm so that it presses against the callus pad that is located at the root of the small finger. (See Photo #12) I then have the club lie diagonally across the palm from this point to another point that is located in the index finger. (See Photo #12) Close the fingers around the club to squeeze it against the heel of the hand (see the "x" in Photo #12) then place the thumb on top of the shaft.

When the grip is on correctly, the "V" formed by the thumb and palm (See Photo #13) points between your chin and your right shoulder.

The right hand is placed onto the club by lying the club across the centre 2 fingers (See Photo #14). Close these fingers. Let the small finger wrap between the first 2 fingers of the left hand. Close the thumb and forefinger so there is no gap between them and the tip of the thumb touches the tip of the forefinger. The "V" formed between the thumb and forefinger points toward the chin. (See Photo #15)

In teaching the grip I use the tape shown in the photos to mark the handle of the club and a second piece across the player's glove. Then I just make the two pieces match together. This is an excellent teaching aid.

The golf swing works like a "flail". A "flail" is an instrument used to beat wheat with. It is basically two sticks joined by a short length of rope. When the first stick was swung, the rope and second stick followed and crashed the wheat. All of the energy generated by the swing of this tool was delivered into the wheat because "recoil" could not occur. Recoil was eliminated by the rope.

In the golf swing, the club is a stick and the body is the second stick. They are joined by "a rope" (the arms and hands). By gripping securely but lightly, the body turns the arms, the arms turn the club, the blow is delivered without recoil and all of the energy is transferred into the ball.



PHOTO #12
Left Hand Open



PHOTO #13
Left Hand Closed



PHOTO #14
Right Hand Open



PHOTO #15
Right Hand Closed

ALIGNMENT

Aiming is the foundation upon which the swing is built. Failure, oversight or complacency will only be magnified from this point. To aim correctly, establish your "precise" target. Never aim for a general area. Select something within the area and aim at it. Begin your aiming from a position behind the ball. Be sure you have a club that is designed to offer distance sufficient to get the ball to the hole. (Past the hole for players over a five handicap). Picture the flight of the successful shot after you have struck it. Select something that is on the intended line of flight and between 30" and 60" in front of the ball.



PHOTO #16

Move to the side of the line of flight you will swing from. N.B. Stop here. Place your feet together with the club behind the ball so that a line drawn from the spot you selected, through the centre of the ball, would intersect with the club face at a right angle or even 1° closed.

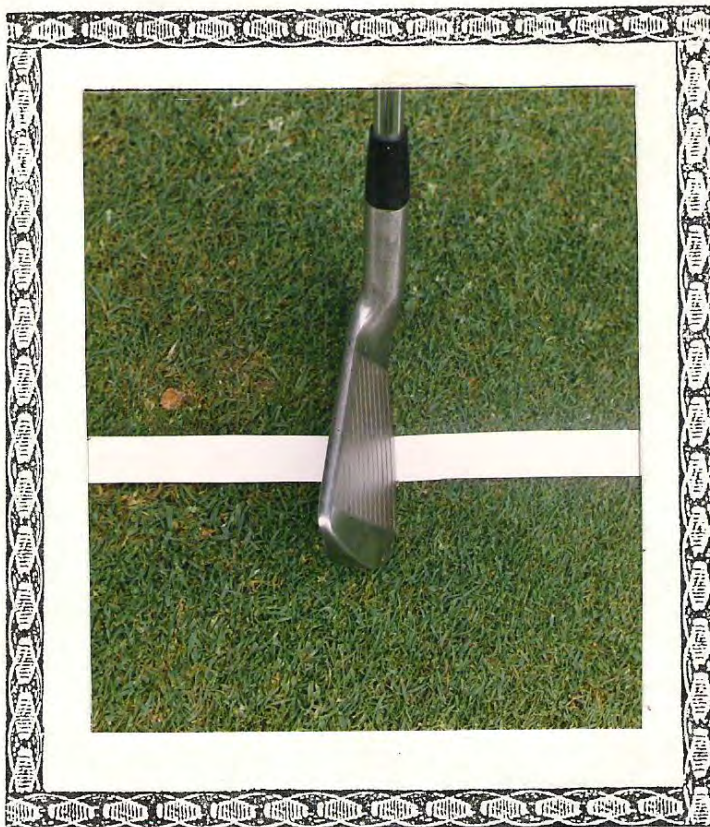


PHOTO #17

(This allows for the "recoil" of the club face when the ball is struck). Now, once again draw an imaginary line perpendicular to the club face, through the centre of the ball, over the spot and while swivelling your head on your neck (without rotating your shoulders) continue to look along the imaginary line until you see your target.



PHOTO #18



PHOTO #19

(not how)

If the target does not appear at the end of your imaginary line, you have aimed off line and you must adjust. Now place your feet. Back foot at a right angle to the line of flight. So as to restrict the back swing and coil the muscles tightly. Front foot toed out toward the target so as to promote a full release during the follow through. A line across your heels, another across your knees, another across the hips and yet another across the shoulders, will be parallel to each other and parallel to the intended line of flight.



PHOTO #20

Ball, spot, target
Player behind



PHOTO #21

Player in stop position



PHOTO #23

Player addressing
Feet positioned



PHOTO #24

Showing full address posture lines and parallel lines

Playing a golf shot is much like firing a rifle. To make the bullet hit a bull's-eye, first you must hold the gun properly and then you must aim it.

Another valuable parallel is a comparison of a short pistol barrel to that of a rifle. Of course a bullet fired from a rifle will be far more accurate for a longer distance because of the longer time it is held on line (length of the barrel rifle vs. pistol). In the golf swing, the longer we can make the club continue toward the target after impact, the more precise our shotmaking. (See page 10, paragraph #1)

To aim correctly:

- a) Picture the result.
- b) Perform your pre-selected set-up routine. (Photo #20-23)
- c) Align the club. (Photo #17)
- d) Align the body. (Photo #24)

MORE MOTION

You now can put the club into a finished follow-through position, and a proper address. You understand the position of the back swing, have a grip and are aimed, but how do you move? Simple! Just not easily! Remember golf is a back-hand, top-hand swing. The distance from the chin to the heel of the top hand is the radius of the swing. (Length of your left arm). Your job is to maintain this radius for as long as possible during the swing. Since your grip is dominated with the top hand you make a full turn away from the ball, drawing the club head along the ground with this hand doing the work. Keeping a large radius up into the back swing position. (Photo #5) The club "hits" this station and you start down. The weight moves onto the back foot instep and flat onto the front foot favouring the top and into the HELD follow-through position. (Photo #3) Still keeping as large a radius as is possible.

The golf swing is similar to a long play record. As the outside turns quickly, the inside turns slowly. The player is on the inside, the club head on the outside. By turning the inside quicker, the outside turns quicker. Never try to turn the outside quicker as its' own entity. The speed that best "works" for you is difficult to find and once found is difficult to repeat for any substantial period of time. I have successfully used a musician's metronome to assist this major problem. I establish my "time" when I have a good pace and match it with the metronome. I then record it, to be played back in the future.

At this point, I introduce video study. We only every study: 1. , grip 2. aiming 3. placing the club into a back swing and 4. a held follow-through. Experience shows that we end up discussing the reasons why the held follow-through was or wasn't reached for about ninety percent of the study time.

Our purpose is to introduce a swing that has "target reaction" or "allowing the natural body instincts to project successful golf shots towards a target under all conditions." Even conditions such as "swing faults" and make this swing work.

To study the swing it is necessary to understand how shots are produced. Only nine combinations can occur.

In other words, different "shaped" golf shots occur by altering the "angle of the club face," "the direction of the club head" or a combination of both.

NOTE 1. These photos describe shots struck by a right handed player standing on the right side of the photo, swinging toward the bottom of the page.

2. The following nine photos show the intended line of flight (the large white arrow) the path of the club head (the small orange arrow) and the angle of the club face (the small white strip). In each photo, the club face is turned at a different angle relevant to the direction the club head is travelling and to the intended direction.

3. Each change of "direction of the club head" relevant to the "intended direction" and/or the "angle of the club face" relevant to both the other two, produces an effect on the characteristics of the flight pattern of the golf shot.

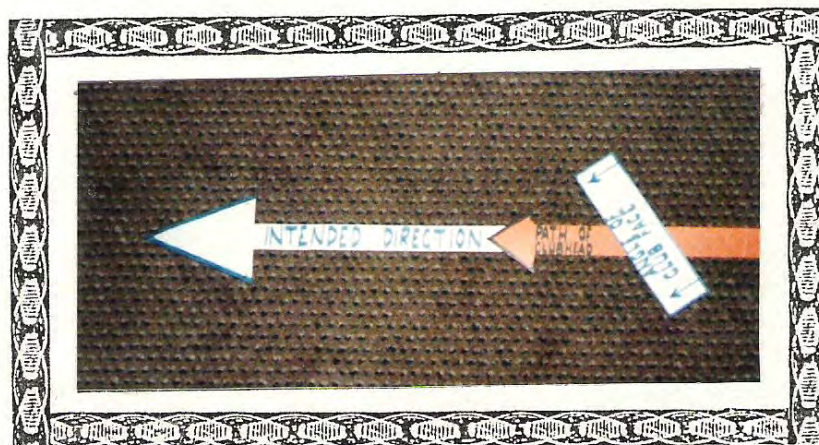


PHOTO #25

The path of the club head is directly along the intended direction with the club face in a "closed" position. The resulting shot is one that begins its flight toward the target and then "draws" off line to the left.

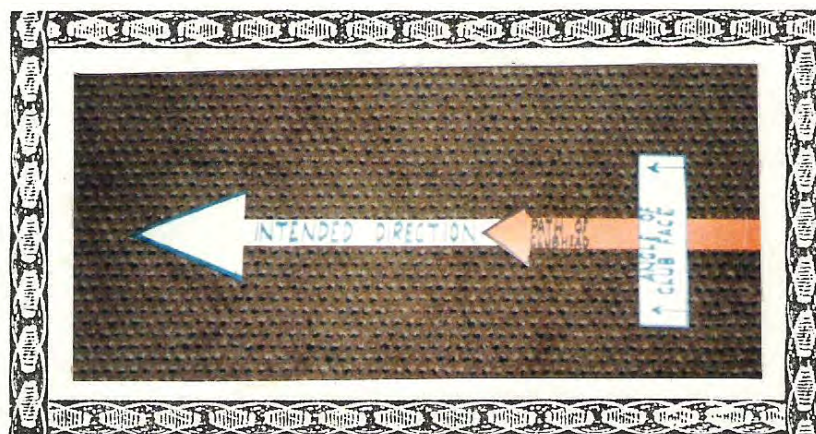


PHOTO #26

When the path of the club head is directly along the intended direction and the club face is in a "square" position, we enjoy a shot that travels at the target.

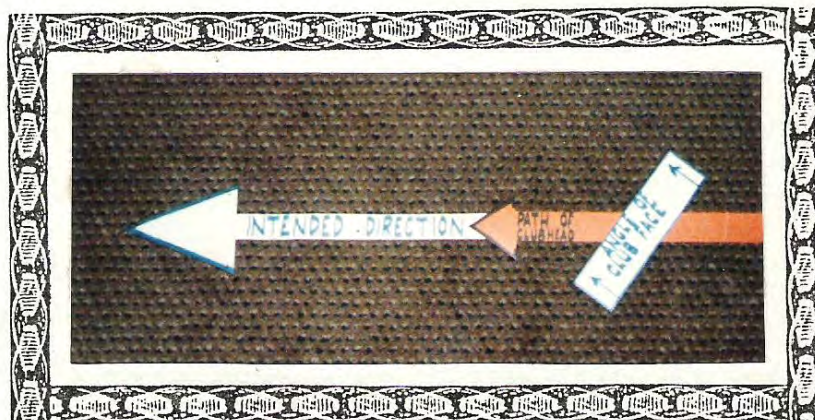


PHOTO #27

When the path of the club head is along the intended direction and the club face is in an "open" position, we have a "fade". That is the shot begins moving toward the target and then falls away to the right.

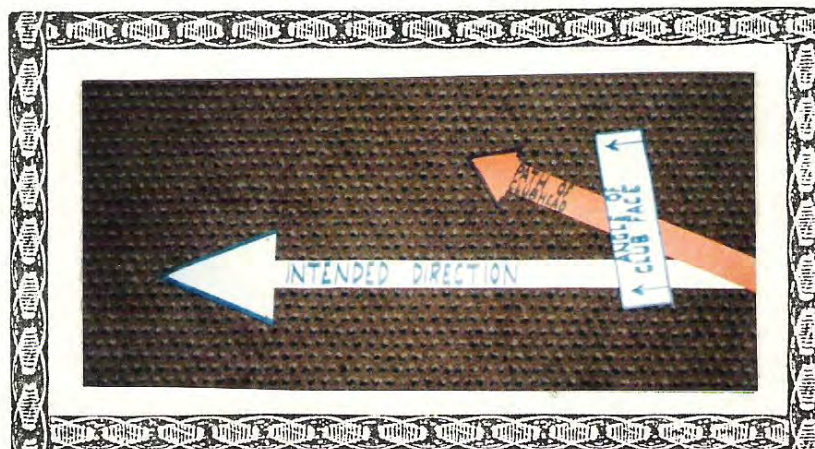


PHOTO #28

In photo #28 we have another situation where the ball returns to the target. With the club head travelling across the intended direction and the club face in a "closed" position to its path, the ball moves to the right of the target and then "draws" back.

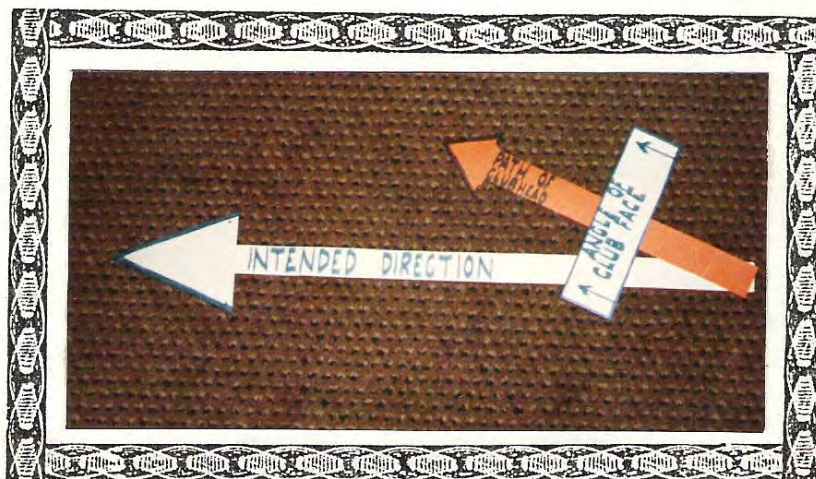


PHOTO #29

When the club head crosses the intended direction to the right and the club face is "square" to the path, we have a shot that moves to the right of the target and stays on that line.

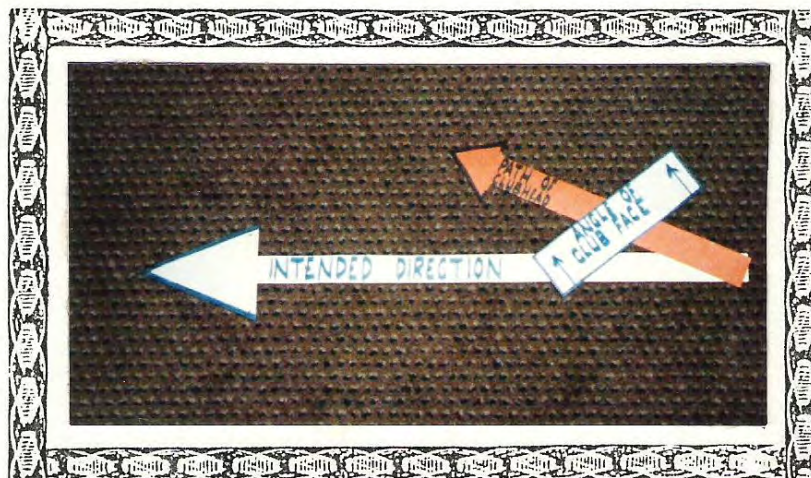


PHOTO #30

Here the club head crosses the intended line, moving to the right. The club face is "open" to the path it's travelling on. Result, the ball flies to the right and then falls further right.

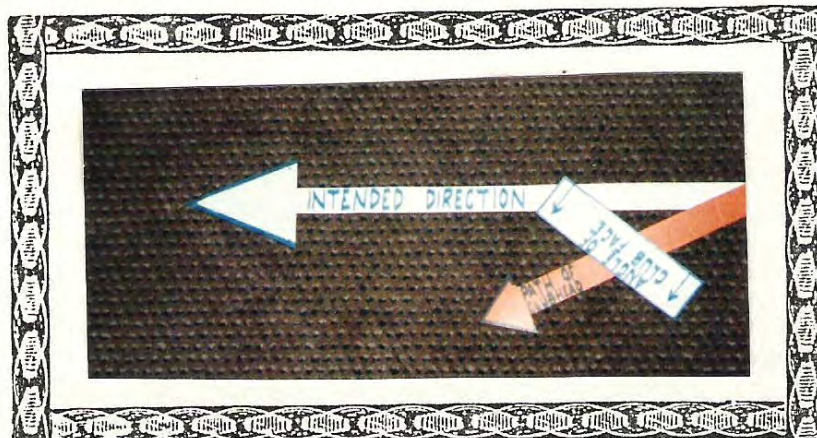


PHOTO #31

When the club head crosses the line to the left and the club face is "closed" to its path, we have a "pull-hook". A "pull-hook" travels left of the target and then hooks even further left.

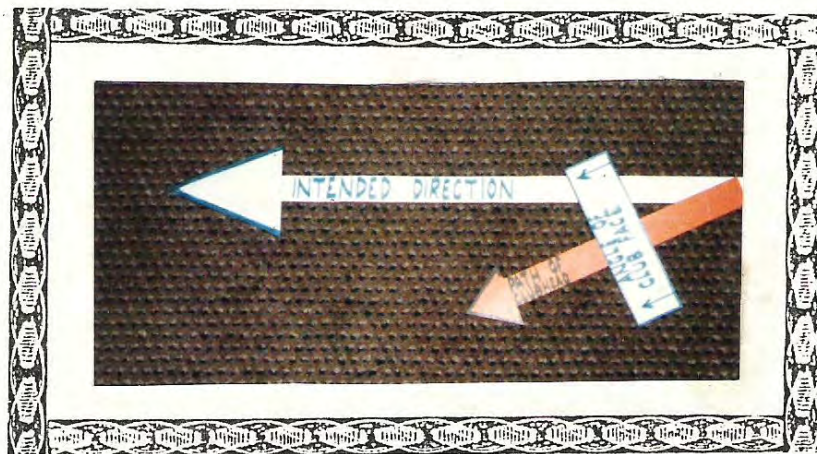


PHOTO #32

When the club head crosses the intended line to the left and the club face is "square" to its path we have a "pull". A "pull" is when the shot begins left of the target and continues along that "line".

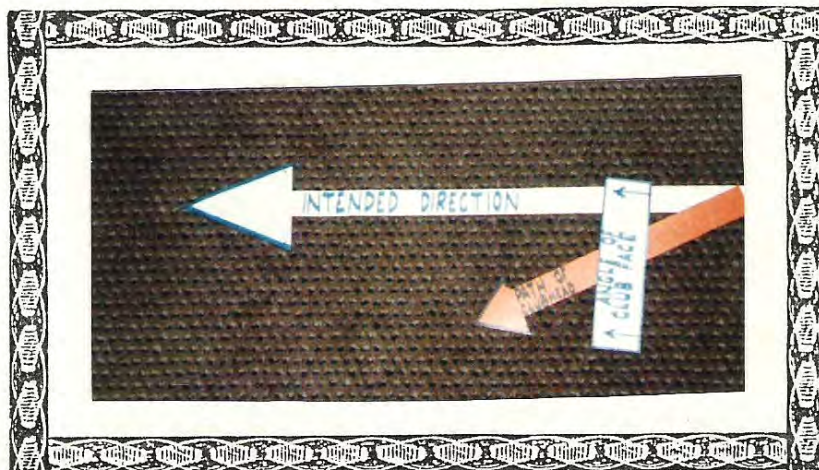


PHOTO #33

Here the club head crosses the intended line left with the clubface "open" to the path it's travelling along. Result, a shot that travels left of the target and then "fades" back to the target.

In all cases, the direction of the ball is determined by the path of the club head. In all cases, the flight characteristics are determined by the angle of the clubface. Only photos #26, #28 and #33 have the ball returning to the target so all of the other patterns are unacceptable.

SUMMARY

The most desirable is either #26 which is very difficult to produce or #28. While #33 has the ball returning to the target, the shot occurs with a clubface that is "sliding" across the ball. This is a glancing contact.

In #28, the club contacts the ball with all of the weight of the club head. The impact is full and solid on the clubface producing the most effective "hit."

By analyzing the flight of the shot and understanding the characteristics that produced these shots, a player could make necessary swing alterations.

THE SHORT SWING

The most attainable equalizer in golf is the "short game" or those strokes that take place within a 100 foot radius of the hole. If a player were to develop the ability to score no more than two strokes anytime his ball was within this area, he would probably never shoot over par. Generally, those players who score the highest are those most ineffective within this "circle." Books have been written about each of the different "types" of shots found in the "circle." Shots from the sand, chipping, pitching, cutting, lobbing, running and every other possible situation including putting.

As instructors, it is our duty to try to learn everything we can about each kind of shot and devise a method we can teach, that people can learn. A very sound, basic method is "triangle, track and target."



PHOTO #34
The Triangle

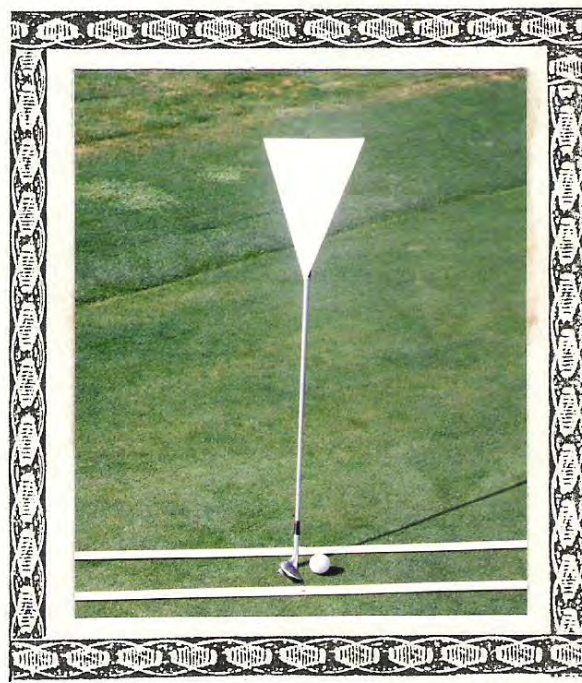


PHOTO #35
Triangle and Track

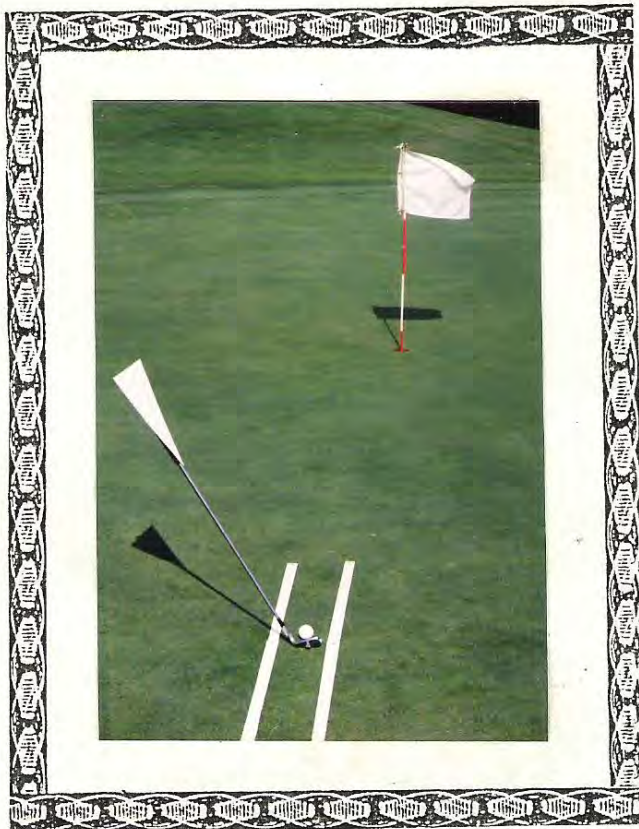


PHOTO #36

Triangle Track and Target

By using a pendulum swing (shoulders only) turn the triangle, up and down the track. End the swing with the club pointed at the target. During this swing there is a minimum of wrist or arm activity and no conscious body motion. So in setting the swing into position, the triangle is formed by a line down each forearm and across the elbows. (See Photo #34) The track is an imaginary line painted onto the fairway. (See Photos #35 and #36) (lie two clubs onto the ground parallel to each other about 6" apart.) Swing the triangle back and forth (between the clubs on the ground) and point it at the target. To facilitate the method, draw your front foot away from the line of flight and position your weight onto the front foot in about a 60/40 ratio. Feet are fairly close together, and hands are ahead of the club head.

To learn this swing use exactly the same method as in the power swing. Aim by establishing where you want the ball to land, (See Photo #38) which will include speed of the green, slope, lie of the ball and selection of the correct club. At all times, keep the ball as close to the ground as much as possible. Do not loft the ball into the air unless absolutely necessary!

Grip may vary depending on whether or not you wish to make the ball stop or run. Establish your centre. Swing the club so that it fulfills its position in the backswing and is "held" in the follow-through.

To learn to use this swing, the secret lies in learning where the ball should land for a particular shot. Unfortunately, every one of them is different. However, begin by practising a "chip" of about forty feet that requires carrying about 10 feet of fringe, 30 feet of green and is quite flat. This shot requires about a seven iron to "carry" the fringe. Structure an imaginary "box" on the green by sticking four tees into each of the corners of the box. The dimensions are about 48" x 48" or smaller. (See Photo #38)



PHOTO #38

Play a shot so that it lands in the box and rolls across the green towards the hole. Where did the ball land in the box? Mark that spot with a 5th tee. Where did the ball finish rolling in relation to the hole? A little left and a little short? Then adjust the 5th tee so that it would represent a spot that if landed on, the ball will go into the hole. After about ten strokes you will know exactly where the 5th tee should be placed. Now locate the box so that the 5th tee is in the centre. You can begin to reduce the

size of the box. From forty feet to the hole the box should ultimately be about 18" square. When your chip lands in the box you should be no further than three feet, in any direction, from the hole. The box can be any size you wish to make it, but make your goal attainable. Practise the triangle, track and target method until every shot lands in the box.

From different distances, different angles, varying slopes on the green and speed of green etc. scribe the box where your experience dictates. Select the club and make a good shot happen.

SUMMARY

The Finer Points

The short game is a complex and lengthy subject. However, I find that by having a student learn three ways to strike the ball he can experiment with each of the different clubs to find the common characteristics. Grip, back-swing and weight distribution are the variables that result in a 1. normal shot, 2. low shot (Photo #42), 3. a high or lofted shot. (Photo #40) Beginning with a grip, rotate the top hand so the back moves toward the hole. ("V" points to left shoulder)



PHOTO #39

Normal Left Hand Position



PHOTO #40

Left Hand For Lofted Shots

This grip is never used at any other situation since it tends to "soften" the impact of the ball on the clubface. Weight distribution is 55/45 ratio onto the front foot. As the club is swung from the ball it takes a more vertical direction than normally, which causes the club to return a sharply, descending flow with the clubface rotating away from the hole at impact. (opening) The result is a lofted shot.

Normal is self-explanatory, so we are left with a low shot. The grip in the top hand is rotated so the thumb moves away from the target (closed) which "strengthens" the impact of the ball and the clubface.



PHOTO #41

Normal Left Hand Position



PHOTO #42

Left Hand In Closed Position

Weight distribution is about 80/20 onto the front foot. This time the club is drawn back from the ball low and slightly more towards the player than normal. (inside) This swing causes the club head to return to the ball travelling very close and parallel to the ground. The clubface is rotating toward the target and the result is a low shot.

A player should stand at the station we described earlier, about forty feet from the hole. Then "chip" several shots lofted, several normal and several low, noting the difference between them, specifically height, carry in the air and distance the ball rolls. By repeating the drill from many distances, a player will learn a vocabulary of strokes that fills every situation. As he develops, he will add more methods and more styles, but the basic three will always be a part of his short game.

Distance

The distance can be determined by picturing that the swing is superimposed onto the face of a clock. A club is selected by making a turn from the address position (6 o'clock) to 7 o'clock to 5 o'clock a certain distance

shot will occur. The distance is recorded. By swinging 8 o'clock to 4 o'clock, 9 o'clock to 3 o'clock etc. different distances will occur. These distances are recorded for each club as they will vary from the PW to the 4 iron.

Then measure the distance to the spot you wish to land the ball onto. Judge the "trajectory" required and select the correct club. Now execute the "time." See Photos #43 to #46.



PHOTO #43



PHOTO #44

A "7" to "5" swing will "carry" the ball about 3 feet in the air with a 5 iron. This will produce a shot of about 20 feet on flat green.



PHOTO #45



PHOTO #46

An "8 o'clock" swing (Photo #45) to a "4 o'clock" swing (Photo #46) will "carry" about 15 feet in the air and roll about 60 feet on the ground with a 5 iron.

With a 7 iron this same swing will produce "carry" of about 20 feet with 40 feet of roll.

When using a 9 iron this "8 to 4" swing gives us 25 feet of "carry" and 25 feet of roll.

SUMMARY

1. Triangle, track and target. With weight favouring your front foot, turn the triangle away from the target, along the track. Using a slight weight shift onto the front foot, return the triangle along the track and point it at the target.
2. Vary your grip for different trajectories.
3. Land the shot into a "box."
4. Gauge distances by using the "clock."

S A N D P L A Y

Sand shots or bunker shots as they are referred to required the implementation of some very basic rules. The most important being the selection of a club that can provide a high rate of success for varying types of situations. A sand iron is usually heavier than the other clubs in your set so that it can "tear through" rugged turf or sand more easily. The angle of the face is the most lofted, to enable shots to have an immediate vertical climb. Lastly, its most important difference to the other irons is the wider sole or flange.



PHOTO #47

Sole Has Little "Protrution"



PHOTO #48

This Club Has A Sole "Protrution"
That Makes It A Good All Purpose
Club



PHOTO #49
Wide Sole Of Flange

This flange allows the club to make a sharp, descending swing into the sand, but not be pulled down deep into it. Imagine swinging a club through water. As the club passed through the water, the water would cover the club face and pull the club deeper into the water. However, by placing a flange on the bottom of the club, resistance to this downward pressure exists and the club doesn't dig as deeply into the water.

There will never be a perfect sand iron because the character of sand varies greatly from course to course and many times from hole to hole on the same course.

Some sand is porous and soft. It allows the club head to penetrate deeply and requires a sand iron with a wide flange to resist this. (Photo #47 is of no use here.)

Other sand is coarse and packed, which allows little penetration. Too wide a flange here would bounce. (Photo #49 is of no use here.)

As well, the lie of the ball may vary. When the ball rests on the surface of the sand, shallow penetration is required. Of course a ball buried

requires deeper penetration.

Fortunately, an answer exists. The depth of penetration can be controlled by the swing and the club. Having studied several kinds of sand irons with a C.P.G.A. club fitting expert and selected a versatile one, the knowledge we now have can be applied. By understanding that the angle of descent can vary the penetration and the loft or angle of the club face at impact can vary the effectiveness of the sole of the club, these shots get easier. (An open club face limits the depth of penetration, a closed club face increases it.)

To enjoy success with sand shots, first analyze the lie. The deeper the ball is in the sand, the deeper the penetration required to extract it. When the ball is sitting on the surface, requiring minimum penetration, address the ball with a slightly open club face and apply a swing with "normal angle of descent." The deeper the ball is buried in the sand, the more closed the angle of the club face and the more vertical the backswing which will produce a more descending downswing.

Analysis of the sand is important. Is it coarse, wet, dry, shallow or deep? Each situation will encourage or discourage club head penetration. When the sand is wet and shallow the club head may bounce off it, in which case consider using a pitching wedge or 9 iron to slide the club under the ball.

Testing the sand by touch is prohibited. However, you can identify your conditions with your feet as you walk into the bunker. As you assume your address, information is presented, (with your feet). Study the impression left in the sand by the impact of the ball. These clues will allow you to determine how deeply the club head will penetrate.

By opening the club face, penetration is resisted. A vertical descent encourages penetration. The opposites are true, thus the combinations of varying adjustments produce varied results.

Your last decision is to calculate the shot's height and length require-

ments. How quickly must the ball get up into the air (i.e. does it have to clear the face of the bunker) and how far must it go to reach the hole? The sacrifice would have to be made if clearing the face of the bunker meant you could not reach the hole. By opening the club face and swinging on a descending pattern, a shot is given height but also a loss of distance. A closed face and a less descending swing will increase the distance but also reduce the height.

Two prime ingredients of a successful bunker shot are: 1. the club head seldom contacts the ball before it contacts the sand (let the club head meet the sand about $1\frac{1}{2}$ " behind the ball). 2. always follow through! Forcing a follow-through, forces acceleration and reduces the possibility of the club sticking in the sand, and/or a double hit.

A player may either putt or chip the ball. Both are necessary shots to be familiar with, but neither one is reliable enough to use for every shot.

SUMMARY

1. Take the time to select a versatile club.
2. The angle of descent and the angle of the clubface determine the depth of penetration into the sand and the height of the trajectory.
3. Allow the club head to contact the sand before it touches the ball.
4. Follow through.

P U T T I N G

Putting is the most vital part of golf. To be successful at it requires some basic fundamentals and once again an important necessity is a good club. A putter must be versatile so as to putt on many types of greens. Its loft should be slight 1° or 2° , its sole flat on the ground. When you address the ball it should be directly under your eyes and the back of your neck parallel to the ground. This position will give you a comfortable length of putter to use.

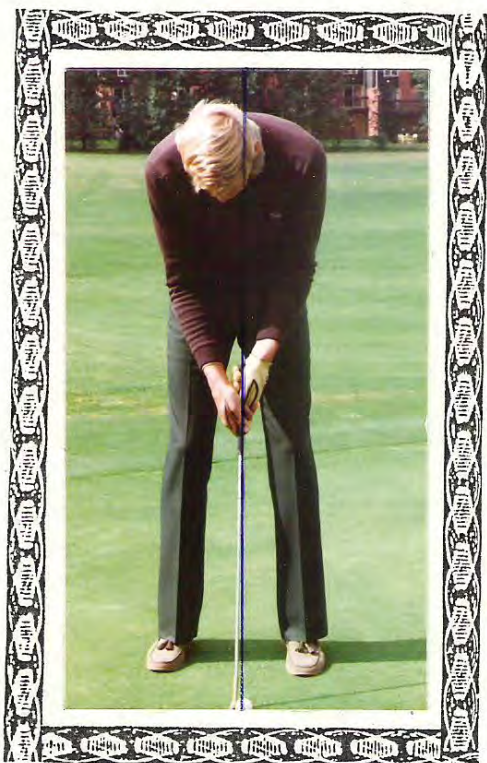


PHOTO #50

Eyes Over And Behind The Ball

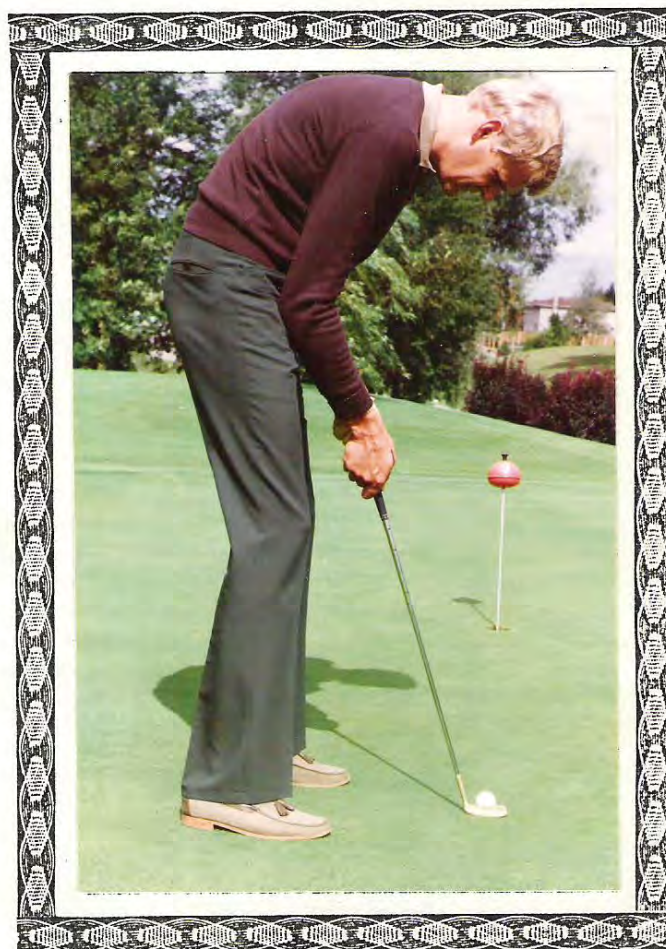


PHOTO #51

Back Of Neck Parallel

Our last point of interest is the location of the "sweet spot" of the centre of a solid contact. The lines commonly found on the top of your putter, do not always indicate the "sweet spot." To verify your putter, suspend it between your thumb and index finger, holding it freely. With a firm object, poke the

clubface towards the toe and notice how the face does not swing straight back and forth, but the clubface twists off line. Next poke the clubface in different locations gradually moving across the face toward the heel. Just before you get to the neck area you will find a place that most resists your poking and the face does not turn off line. This spot is the sweet spot. (See Photos #52, #53 and #54)



PHOTO #52
Tapping Toe



PHOTO #53
Tapping Sweet Spot



PHOTO #54
Tapping Heel

It is your job as a teacher to instruct the pupil to strike the ball solidly on the putter face. "Most putts are missed because they are mis-hit, not because they are mis-read."

The most beneficial mental picture that I use to instruct putting is as follows:

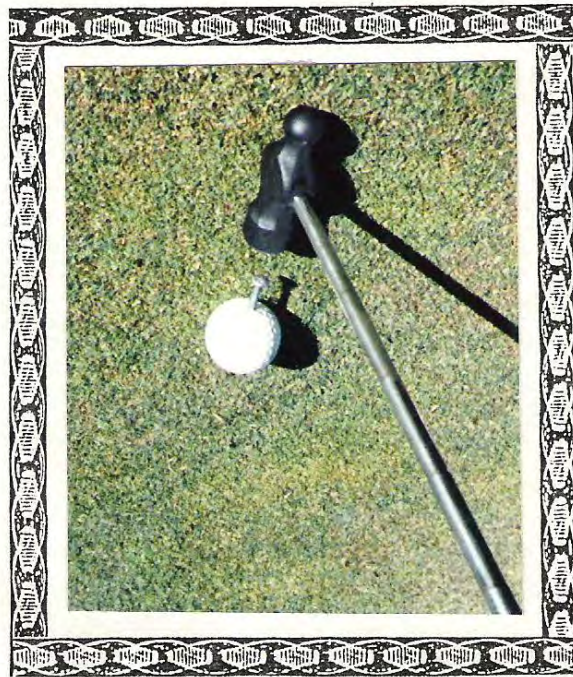


PHOTO #55

In the photo you can see the hammer head of the putter driving the nail through the ball. (The axis of the hammer - sweet spot - strikes the axis of the golf ball - the nail.)

To become a good putter, you must address the ball with your body "in balance." The key to a sound, repetative stroke is balance. As mentioned earlier, position your eyes directly above the ball. Your grip will have the "V" between the thumb and palm in the top hand, pointing to the front shoulder (left hand, left shoulder.) While the "V" in the lower hand will point at the back shoulder (right hand, right shoulder.) Also note the club lies on top of the heel of the top hand rather than under it.



PHOTO #56

The putter swing is a pendulum motion with the shoulders so that the back of the top hand never breaks upward toward the target.



PHOTO #57
CORRECT



PHOTO #58
INCORRECT

To develop a sound putting method practise putting from about twenty five feet, learning to strike the ball solidly. In order that you may reduce your scores, acquire proficiency from the five foot range.

Putting is not unlike the full swing. It can be taught by a series of three exercises. Begin with exercise one: head steady (looking down), body in balance, top hand wrist unbroken. (Photo #50) Exercise two is the inbalanced body position, eyes over the ball and using the proper grip and point putter face toward target, hold for two seconds. (Photo #57) Exercise three is dragging the putter away from the target along the ground and holding it for a one second count. (Photo #60)

The co-ordinating of the exercise is done by swinging the handle of the club by turning the shoulders. (A slight arm contribution will develop, as

will a slight wrist and hand contribution.)

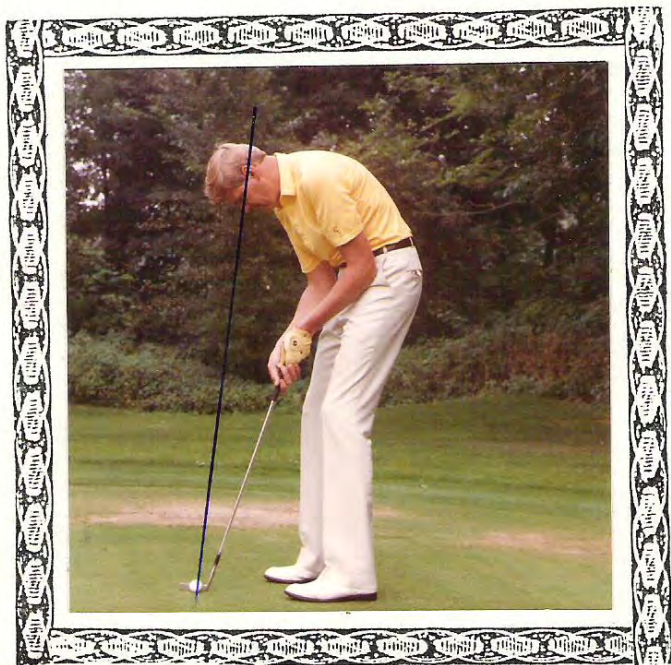


PHOTO #59

Putting Set-Up (eyes over ball)

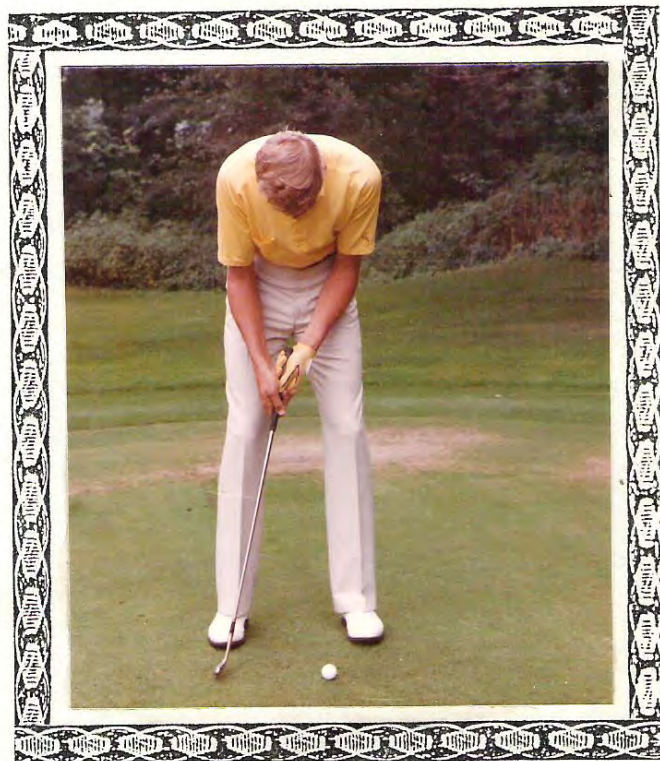


PHOTO #60

(The Backswing)

SUMMARY

1. Place ball directly under your eyes in address.
2. Locate putter's "sweet spot." Contact center of the ball with "sweet spot."
3. Grip with putter on top of heel of left hand.
4. Swing with your shoulders through the 3 putting stations.

HOW TO ASSIST A STUDENT TO PROGRESS

In the Rules of Golf, Section I - Etiquette, "In the interest of all, players should play without delay." This means "move quickly and be organized when playing a round of golf." A player can make a large contribution to quick play if he has developed his skills on the practice range. He will require less time to prepare each shot since rehearsal will permit expedient execution. He will also hit fewer shots and fewer shots that require searching for a lost ball. The "bottom line" is "Be prepared." Go to the driving range to learn so not to disrupt the play of others.

The realization that "golf is simple just not easy" will occur to the student very early in his career. How to make that one "accidental" swing that produced a long, straight drive, happen more often, requires precise understanding of the method and hours of dedicated practise to allow the body to perform. If golf were played with the mind commanding the body to fulfil a particular method, good golfers would look like robots. By permitting those natural responses such as the ball compressing on the clubface of the reflex of the arms and hands moving the club toward the target; people would eliminate making a swing comprised of "fear and hope." (I'm afraid I'll make a poor swing - I hope I make a sound one.) The successful player will quickly learn not to let anything interfere with the swing they are making. The failure or success of any previous swing has no bearing on your requirement to perform the current swing properly.

Most sports are reflex or response situations. In baseball, a ball is in motion when the batter responds by swinging the bat. In hockey, the player is skating when he shoots the puck. In golf, the mind is in "motion" as the body responds to the image of a well struck shot. A mental picture is developed by the type of shot the player wishes to produce, as he walks to his ball. He analyzes the conditions and selects a club. He now has a very clear image of the shot he wishes to produce. During his alignment he pictures the ball travelling in the air and then as if the flight was recorded on movie film and played in reverse, the ball comes back from the target to the face of the club. All the while the player is positioning his body in the correct posture. When everything is "set up" the projector keeps rolling and an image of the scene enters the screen. "As the ball is returning to the ground, the

player is in the held follow-through position. The follow-through returns to impact and the ball returns to the ground." As this occurs, the player begins his actual physical movement into the backswing as the projector stops and the forward switch is engaged. Just as the actual swing places the club at the top of the backswing so does the film sequence (place the club at the top of the backswing.) As the projector rolls forward, so does the golf swing. The golfer's picture shows the flight of the ball off the clubface and himself in a high, held follow-through.

He has divorced himself from all physical parts of the swing except his "destination" (the held follow-through). There is no secret of golf, just hours of regimen until fundamentals become habitual.

Practise can be boring and unproductive unless you attend the driving range with a goal. You should know how long you can physically hit balls without tiring and/or losing your concentration. How much time have you got? Refer to your written log of "what have you been working on and with what result?" Decide on how many shots you will hit today and build into the routine sufficient time for a "coffee break."

When you practice always aim at a target. Select the desired club and target, then begin. First, some stretching and loosening exercises. Then some short pitch shots, continuing until you are making full length swings. Now go to work on today's goal. Always aiming at your target, but score yourself only on your success or failure to make yourself perform that part of the swing you wish to improve. Never attempt more than 2 things in one swing and more often only one at a time.

To add a little variety to practising, aim at a different target for each swing. Do this only after hours of repetition working on one target to ensure that the method is firmly engrained. A word of caution though, select each successive target as you open your stance not closing it. In other words, if you are right handed, each successive target will be on the left of the one before it until you have used all your targets. Then start at the first one again and repeat your selection moving to the left.

The purpose of this is to encourage a swing that contains an address position with the front foot placed in an open pattern and a swing that "disciplines" the ball on a straight line toward your target.

If the target selection order were reversed, the swing would be developing a tendency to set the stance in a closed pattern, which must develop a swing that has the arms moving toward the target before the legs. This sequence of events in the swing produces the golf swing's most common faults. In fact, a shot struck straight at the target would have to be a "pull", from the "aimed right" position.

To make a student progress to maximum proficiency, he must realize practice is the only quick route. Practice is a two sided subject, that which we have discussed, involving the development of the physical part and the next part, development of the mental aspect.

To practice the mental part, select a target on the range and picture yourself on any golf course playing a shot with the correct club in your hand. Then execute the required swing to produce the desired result for the conditions you have imagined. In this way you could practise every condition you will ever be confronted with, from being 1 under par in a tournament for the first time, to being 15 over par and so on. The secret to golf is preparation. The more prepared you are for every possible situation, the lower the score you will shoot when you want a good one.

Hogan used to analyze a tournament site making note of the required "ammunition" required to play the event. He set out to practise those special shots so that he could "call" on them when he needed them. Many times his "package" would include something like a delicate pitch so that he could avoid a potential disaster and still earn a par at a key point during the round. He would then play a shot that seemed to be incorrect to the spectators. By "calling" on his preparation he then made what appeared to be a miraculous recovery.

Hogan also walked courses "backwards." Starting at the 18th green, he

walked towards the tee. This analysis took place on each hole, until he had "unlocked" the secrets devised by the course architect or by time.

The point of this illustration is that Hogan knew each course, each tournament, each situation that required adoption of some type of golf shot. Once he learned of the ingredients required, he spent hours perfecting his defense.

The beginning player should spend time (under instruction) learning to strike the ball squarely with the golf club. This should be his/her goal for all shots until the level of proficiency reaches approximately 80 strokes for 18 holes (male), 85 strokes (lady).

At these levels the player can begin to advance his/her skill level by isolating on direction. The aiming of the shot, of course would have been implimented prior to this but now becomes a necessity. As introduction into the finer techniques of chipping, pitching and putting also take place at this point. The students learn of variations that produce high shots, low shots, adaption to different "lies" the ball can come to rest in. With these conditions and many, many hours of practise, a player can improve his level to become a low scoring participant (72 to 75 strokes for 18 for a male), (75 to 80 - female).

During a player's career he/she will enter competitions at different levels. Their ability to perform in tournament conditions will vary from person to person. At such time as a player reaches the 72 - 75 level (male) and enjoys tournament golf, he is ready for progress. Proficiency can now only be attained through preparation and experience. If the talent is "within" the player, "the sky is the limit."

F A U L T S A N D C U R E S

An instructor cannot be of much help to a student unless he knows of certain "areas" in the golf swing that at times are not as "sound" as we would like. I call these "pressure valves." Each of them contain the power and/or efficiency of the swing and unless monitored will destroy golf swings.

Hooking

When the swing produces shots that turn from right to left (right handed players) first make an analysis of your alignment. Place a straight object across your heels, step back to determine the direction the object points, it should be at the target. If aimed right (See Photo #61)



PHOTO #61

the player would be forced to make an upper body motion to subconsciously get the club head to travel toward the target. This type of motion requires tremendous physical strength to allow the club to produce a shot directed toward the target. After a period of time, either physical weakness or lack of mental discipline will permit the left arm and wrist to "break down", (See Photo #62) which in turn allows the clubface to close, producing a hooked shot.



PHOTO #62

(lack of extension or "breakdown")

If the alignment proves to be accurate, next analyse your grip. The "V" formed by the thumb and forefinger of the left hand, should point to the right shoulder and the "V" in the right should point to the chin. If either of these is pointing around to the right too much, again the clubface will close and a hooked shot will occur.

The last check point is to ensure that the "radius" of the swing is maintained. After impact the left arm should extend away from the body, forcing the club head to travel along the "line of flight" for as long as is possible. When the left arm collapses, it will begin this collapsing before impact. The club head speed will be decelerating and the clubface will close. A hooked shot occurs.

Hooking Pressure Valves

1. Alignment to right of target.
2. Grip turned to right.

3. Break down of radius.

Slicing

Slicing is the nemesis of the learning and average player. Even at a time when the swing is finally co-ordinated enough to strike the ball squarely on the clubface, and a slice occurs, high scores are in the neighbourhood.

The golf ball turns off line in the air by the same principals of physics that allow it to travel straight. Upon contact, the ball "runs" up the face, which inputs "backspin" onto it. The ball revolves at several hundred revolutions per minute, causing a vacuum to be created above the ball during its flight. Since the ball is 1.62 inches in diameter and weighs 1.68 oz., it is almost the specific gravity of one (making it almost buoyant in water) but also affected by air currents easily. Thus, the ball is drawn into its own vacuum, giving the ball lift or elevation to its trajectory.

Of course a straight end over end revolving ball would "hold" its "line" or direction. But unfortunately if the club head does not continue along the line of flight, side spin is also imparted. Then a vacuum is created at the side of the ball and the poorly struck golf ball is drawn up into the air by the back spin and off target by the side spin.

Most commonly this side spin is produced by the driver, fairway woods and 2, 3, 4 irons. Since these clubs are the longest and have the least loft, more side spin than back spin is imparted. Result, more off line shots occur with the longer clubs.

Slicing is produced by a swing that has the club head travelling across the line of flight from outside to inside and/or an open clubface. To combat the problem of slicing, first check your alignment. If you are aimed to the right of the target, you may subconsciously turn from the "top of the back swing" to the impact position by using only your upper body. The club head would be travelling from "outside" the line of flight to the inside. (Newton's Laws) This would impart a side spin onto the ball which causes it to slice.

Should aiming too far to the left of the target be present, the lower body may turn too quickly. The weight transfer would locate the weight in a position on the outside of the left foot, in the follow-through. As a result the club head would have been "pulled" away from the line of flight, once again causing an out to in swing and a slice.

Proper alignment being attained, check your grip. By placing the left hand on the club in a position that the "V" between the thumb and palm aims toward the left shoulder, the hand is weakened. (See Photo #13, pg. 26) During impact, the hands leading the club head as they should, the clubface would be "open." This causes the ball to slide across the clubface, producing a slice.

The next "check point" is to ensure the plane of the swing has been maintained. At the top of the back swing the club must be pointed toward the target not having broken the plane and pointing to the right. You will require qualified help to assist you with this problem. However, when the club is at the top of the back swing, a line can be drawn from the club head, through the left hand, through the left shoulder and through the ball. This is called the plane of the swing.



PHOTO #63

Our last "pressure valve" is balance. The weight must shift during the forward swing from the right foot to the left foot to form a complete follow-through. If weight remains on the right foot at the impact position, the body will have turned incorrectly and the clubface will open and cut across the line of light from the outside to the inside, causing a slice.

Slicing - Pressure Valves

- Alignment - is it too far left of the target or is it too far right?
- Grip - set the grip to ensure the "V" of the left hand is not turned too far left.
- Plane - the club must point at the target when it is in the "top of the back swing position."
- Balance - maintain a full radius, to maintain full torque in the back swing. This allows a weight shift onto the right foot then back onto the left foot, which moves the club head toward the target.

Topping

Only 3 things cause a player to strike the ball on the top. 1. Standing too erect at address and keeping that height so that the arms and club cannot extend long enough to reach beneath the ball. 2. At some point during the back swing, lifting up with the spine and legs so that the arms and club cannot reach beneath the ball. 3. Not allowing the arms to be extended at impact.

All are cured by assuming the correct address, making a full back swing turn without moving the centre of the swing (the chin) and maintaining a large radius into a high follow-through.

Pressure Valves

1. Height and distance from chin to the ball during the address must be established and maintained.
2. A high "held" follow-through produces a complete radius.

Skying

Skying can only be caused by two movements. Either the distance from the chin to the ball was not enough in the address or it decreased during the swing. In both cases, the club head passes under the ball forcing it sharply upward. To correct the problem, learn to stand at a tall, erect position in the address and then maintain that height.

Pressure Valve

Establish height (distance from chin to the ball) in the address and then maintain it.

Shanking

To a player who has contracted the dreaded disease of "shanking" there really is hope. Quite simply, the ball is struck with the hosel of the golf club. In order that this might occur, either the chin moved closer to the ball during the swing or it began too close.

At the top of the back swing, the correct weight transfer will have the

weight favouring the right foot. The hips will have torqued, while the right knee remains flexed without having made any lateral motion. The players' left foot will be pulled onto the instep, so the left knee points behind the ball.



PHOTO #64
INCORRECT



PHOTO #65
CORRECT

At this time (the top of the back swing) the player will have maintained the same distance his chin is from the ball as it was at address. (See Photo #5, page 20)



PHOTO #66

Pressure Valve

Establish the correct address position posture. Be tall in address, with your chin up off your chest. Maintain this "elevation" during the swing.

SUMMARY

Hooking

- 1. Alignment to right of target.
- 2. Grip turned to right of target.
- 3. Break down of radius.

Slicing

- Alignment - is it too far left of the target?
- Grip - set the grip to ensure the "V" of the left hand is not turned too far left.
- Plane - the club must point at the target when it is in the back swing. This allows a weight shift onto the right foot then back onto the left foot, which moves the club head toward the target.

Topping

- 1. Height and distance from chin to the ball during the address must be established and maintained.
- 2. A high "held" follow-through produces a complete radius.

Skying

- Establish height (distance from chin to the ball) in address and then maintain it.

Shanking

- Establish the correct address position posture. Be tall in address, with your chin up off your chest. Maintain this "elevation" during the swing.

C O U R S E M A N A G E M E N T

Golf is a two part game. Part one is the development of the technique required to produce golf shots. Part two is the selection and application of the correct technique in a given situation.

To progress to the Part 2 level, a certain proficiency must be attained with Part 1. If a player cannot make a golf swing that produces some good shots, he must first devote his time to learning Part 1.

In order to progress as a golfer, a person must learn what his basic needs in life are. This statement may seem a little radical if the player we are discussing is a "recreational level" player. However, should we be talking about a tournament player, the situation is different. For example, Jack Nicklaus says his needs are first, his emotional needs, which he satisfies through his family. Second, course design which supplies his need for creativity. Third his intellectual needs are filled by business. Fourth physical exercise and mental relaxation are satisfied by sports other than golf. Finally, golf, which supplies his stimulus. Through recognizing his emotional makeup, Nicklaus plans his life carefully, allowing time and effort to maintain his requirements.

An understanding of your inner self will permit you to adopt a style of playing golf and a life style of stability.

By organizing one's life, priorities can be better handled and more pressure can be exerted on the human mind without "derailment."

Preparation is a large part of course management. Never hit a golf shot unless you have a very clear picture of it in your mind. This picture can only come from practice, remembering that the cardinal sin of golfers is to try to play beyond their capability.

A winning player must be patient as he progresses around the course, trying his best to execute the most effective swing in his repertoire. Club selection requires patience. Do you lash away with a driver or place an iron into the fairway?

Preparation is also an important factor. "Beating" thousands of balls on the driving range is beneficial until your fundamentals are "ingrained." At this point, quality is more important than quantity. Your most productive practice will be done after a round of golf when the mistakes are still "fresh." Then practice only specific "swing areas" clearly established. In fact, Hogan used to practise and record notes of what he was "working on" and how it was progressing.

Swing changes should be undertaken only when you understand the reasons for making them. After serious practise a player will accumulate a store house of "swing keys" from which to draw on. These keys will provide a quick, handy mental image of a golf swing that works for you. By applying a key, a player can turn a poor round into an average one, and average into good and the good ones require little extra anyway.

Good players have developed the acceptance of shots that are not top quality. When these occur, do not let them affect any preceding shots. Every player hits poor shots. Every player hits good shots. Successful golf is the ability to perform in the face of adversity. The good breaks average out with the bad ones. Do not self destruct when they surface!

With sound practice habits and a strong determined effort when playing, the best a player can hope for is to narrow the margin of quality between your worst and your best shots.

Practical reality has an important place in course management. Only attempt to play shots you know you can execute. Try to remember situations, i.e. long rough on one side of a green and not on the other side - a green that is very fast from back to front, in these situations try to avoid putting your ball into these difficult places. Make sacrifices to keep scores down. Take a bogey rather than risk a double or triple bogey.

Course management is simply managing yourself.

SUMMARY

It is my feeling that a very brief outline of my teaching method is presented here.

Chapter One began this thesis by discussing the "Laws of Physics" that allow the golf swing to project a golf ball. I outlined some of the theories of Aristotle, Galileo and Newton.

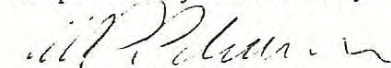
Tim Gallwey's book "Inner Golf" helped me to present a philosophical background as a prelude to the description of my teaching method.

In the method, I outlined three "stations" that occur during the golf swing. I explained the grip and the motion required to produce the swing. At this point I described nine patterns of clubface, club head instruction, showing how each combination affected the direction and trajectory.

The next step was my "triangle track and target" method for teaching the short game. I reviewed sand play and putting. To bring it all together, I brought my student through a state of progress, then outlined basic faults and cures and ended with a section on course management.

It is my hope that you find my work to be complete and satisfactory.

Respectfully submitted,



J. Michael Schurman.

METHOD COMPARISON

In developing a method to teach golf the instructor will likely realize truth in a saying by Thomas Edison. "I failed my way to success." I began teaching golf in 1964. At the time, my qualifications were: 1. I was one of the best players at the club. 2. I worked in the pro shop and 3. Nobody else wanted to teach the ladies clinic. I was serious though and I did sit down and list "headings" for each of the 6 classes. Then I tried to think of how to "fill in" each class with information.

These clinics have lasted until today because I feel the Head Professional should be available to all levels of players.

I was fortunate to be the Head Golf Instructor for York County Board of Education, 1970-1976 and for Simcoe County Board of Education, 1971-1976. Basically my students had never played golf before and were in groups of 25 to 50 people, once a week for 10 weeks, indoors. What a wonderful experimental environment. The person who received the education in golf was me.

In addition, I have spoken to over 100 Men's Service Clubs about the golf swing; taught week long seminars to Junior golfers for the Ontario Golf Association for 12 years and about 100 clinics to Blind Golfer's. These clinics are in addition to clinics and lessons at my Club.

Experience has been my teacher. My method is simple to understand and can be applied by any player, healthy or handicapped. I provide the student with knowledge of the game of golf. He provides the application.

During the past 12 or 13 years, I have become close friends with Irv Schloss, Joe Noble and Lloyd Tucker. Irv is one of the most highly respected golf instructors in the U.S.P.G.A. He is the single most important catalyst in photographing golf swings for analysis. I have viewed his library of films that date from Joyce Wetherhead (possibly the best swing ever) to every modern-day star. He and I have had some great discussions both on the lesson tee and in his home.

Irv has worked with many "quality" players and produced "top calibre"

players from them. He is also a recipient of the Horton Smith Award for his efforts in the P.G.A. of American education programs particularly in the area of golf instruction.

Joe Noble was the Head Golf Professional at the Thornhill Golf Club for about 30 years. As well as being one of the finest players in the area, he is one of our most respected teachers. My involvement, other than playing with him, has been at the Ontario Golf Association's Junior Development Camps. We have both attended these camps for over 10 years and spent much time discussing the game of golf.

During the same period of time that I have worked with Joe Noble, I have spent time with Lloyd Tucker. Lloyd has the finest teaching record of any Professional Golf Instructor in the world, in my view. He produced provincial champions (the Hauser brothers) a U.S. tour player (Jerry Kesselring) a two time winner of the U.S. Amateur (Gary Cowan) and one of the finest strikers of the ball who ever played golf, Moe Norman. On top of these, he made many "scratch" players who are currently members of the C.P.G.A.

I have had the opportunity to spend time with these men and compare my methods to their's. As a result, I have instructed players who have won a total of 23 Club Championships. However, although this is a good record, my best work is seen in two of my assistants who have become excellent instructors and in the results I get from Blind Golfers.

Teaching by imitation or with visual aids is easy. The real proof of ones' ability to communicate his method is to make a golf swing out of a player who was born blind.

My method is simple and can be performed by any player. At no time do I use "golf terms," just normal laymen's language.

Again I quote Edison: "I failed my way to success." Every time I make a mistake, I learn something. That brings me closer and closer to the correct way of doing something.

In the beginning of my teaching career, I began by writing down headings for each of the six lessons in a ladies clinic. They were grip, address, back swing, follow-through, aiming and review. I tried to make people swing with the exact method I used to play with myself.

After a period of years of injecting information into each heading, (usually something that I was trying to inject into my own game) I learned something. Lot's of people weren't as talented as I was. Lot's of people only wanted to be a little better, not a lot better. Lot's of people didn't understand what I was talking about.

I decided to learn how to teach people by a method that was developed to help them improve. It was at this point that I expanded to include my "position method." In the "position method" the student is taught 3 basic static positions; the top of the follow-through, the address and the top of the back swing. Since these are static positions, every student can perform them with some degree of success. There is no intimidation by the ball, because the ball never becomes a dominant factor in the swing. The pupil simply rehearses the positions hundreds of times until they are perfected. He then co-ordinates them into one motion toward the target. By practising the motions with the target in mind, we can have a mental image of a successful golf shot being produced. Introduction of the golf ball has no bearing on the student's effort to put the club into the "positions" relevant to the target. With a dedicated effort, every student can learn the positions relevant to the target and can in fact improve.

Paul Bertholy, a well known P.G.A. of American instructor, refers to a similar method which he calls "Progressive Precise Intensified Conditioning." He enlists the help of "seven key positions" preferably practised in front of a mirror with his "conditioner pipe."

Position #1 he calls "the Platform, The Rod And The Claw." The left arm becomes a rod, the right arm the claw and the legs and waist, the platform.

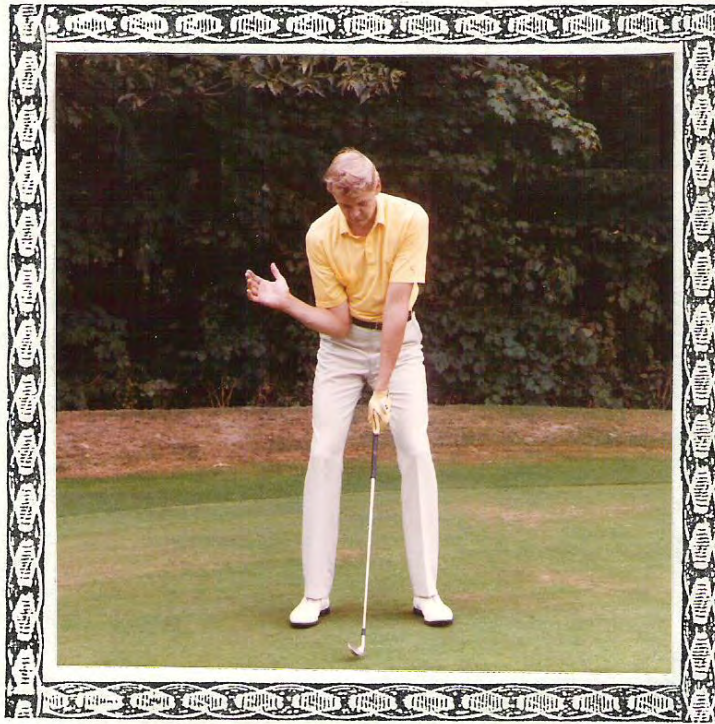


PHOTO #66

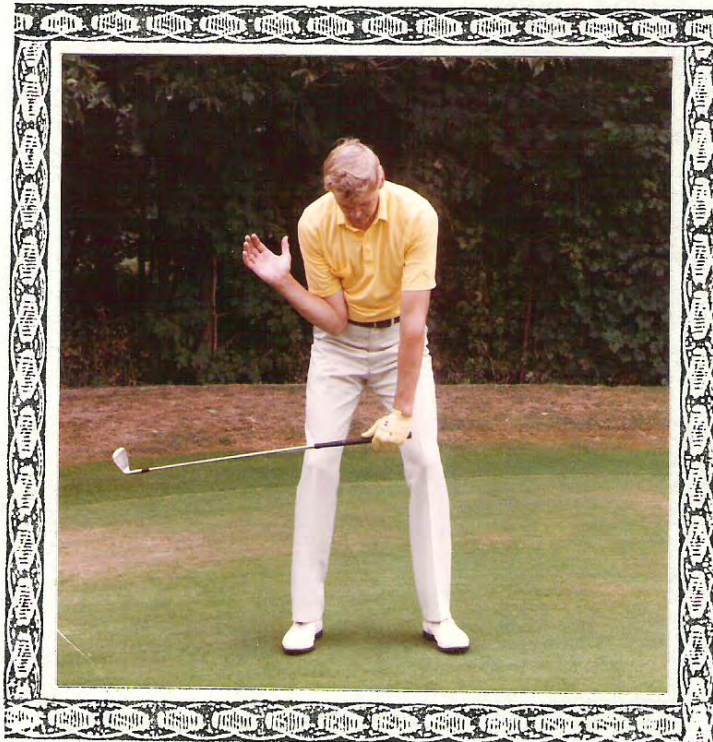


PHOTO #67

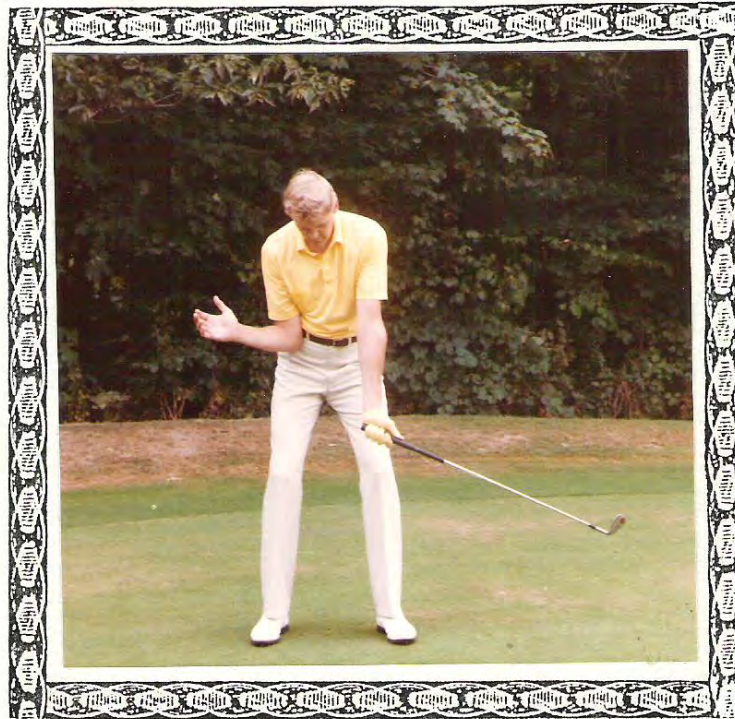


PHOTO #68

The "conditioner pipe" is swung with the left hand into each of the 3 positions shown. Holding each position for 10 seconds. (Photos #66, #67, #68)

Position #2 is called "knocked, locked and cocked." (Photo #69)



PHOTO #69

The knees are knocked, the left arm is locked, the left wrist's cocked, the right elbow is cocked into the navel and the chin is cocked to the right.

In the position #3 "top-o back swing torsion," the hips are restricted to a 35 degree turn, while the shoulders rotate to 90 degrees. The left knee is "pinched" inward pointing behind the ball and the hands are "reaching" upward. (Photo #70)



PHOTO #70

The fourth position is called the "pre-impact." From the #3 station, buckle the left knee toward the target and a "bump slide" of the lower body pulls the left arm into place. The right arm retains the "claw position" as the knees are flexed and a strong effort is made to keep the wrists "cocked." (See Photo #71)

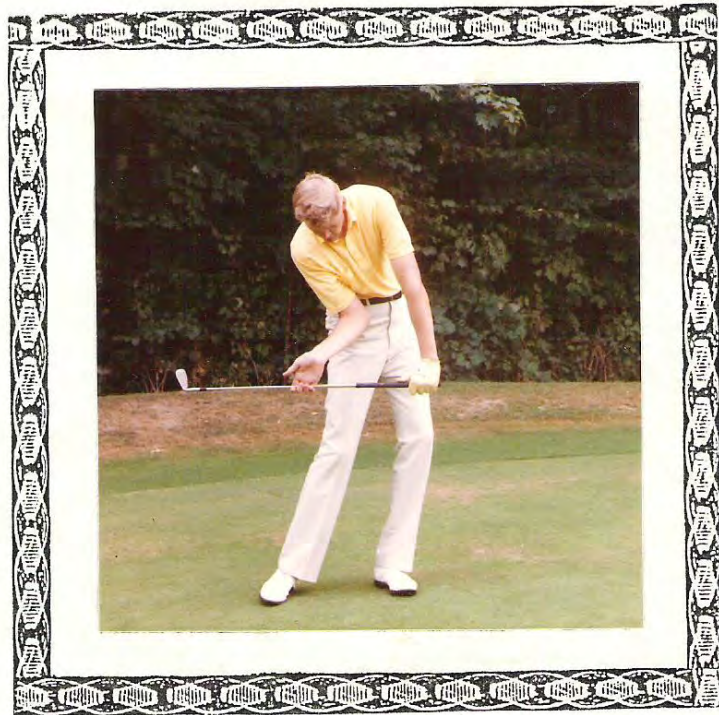


PHOTO #71

The critical position is the "impact position," #4 $\frac{1}{2}$, Bertholy says, "The right arm must extend at impact." The "claw" must be maintained.
(See Photo #72)



PHOTO #72

By fully extending the arms, we attain 5" (Photo #73) and the follow-through is 6". (Photo #74)



PHOTO #73

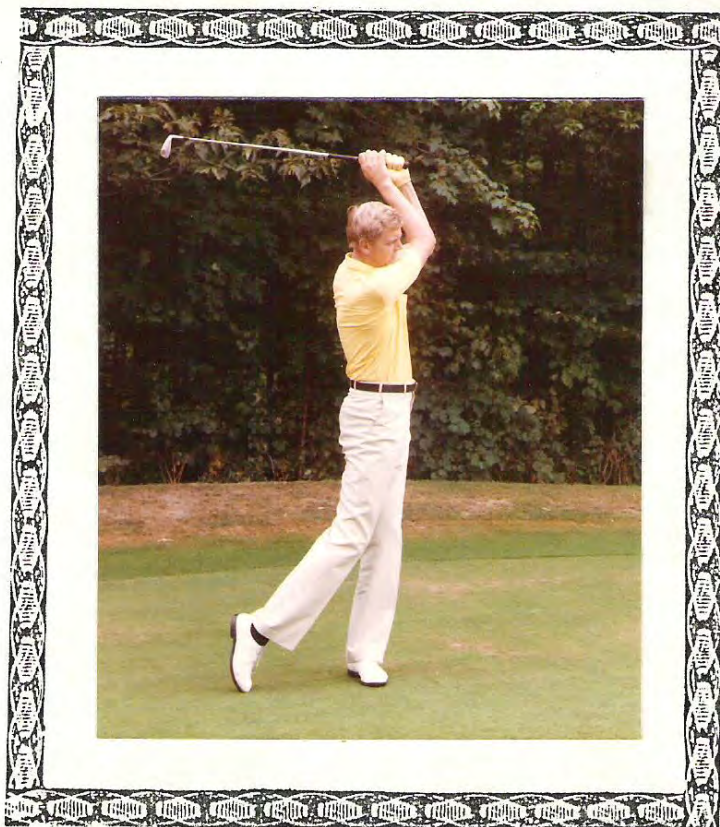


PHOTO #74

The Bertholy Method continues with another series of drills called Program Two in which the "stations" are co-ordinated into a golf swing. I like his approach using static positions to teach with but I find his control and use of the English language to be intimidating. This makes me reluctant to receive the message perhaps because I don't think a description of such a simple motion (the golf swing) requires so much "window dressing."

Bertholy does have some excellent methods of communicating a well thought out system to teach all levels of players.

Joe Dante wrote "The Four Magic Moves to Winning Golf" which is a much revered publication. Mr. Dante's description began with the grip and stance being explained similarly to Ben Hogan's writings, A Vardon grip and an erect balanced posture.

He says the "Magic Move of the back swing" is to "Start the back swing with an early backward wrist break." This move would put the clubface into a "square" or "closed" position from here the shoulders would be forced to turn fully giving a complete back swing. (Photo #75)



PHOTO #75

The next "Magic Move" is not really a move, it is a position. At the top of the back swing, the right wrist will be under the shaft and will be weakened. The left hand will be strengthened because the hand, wrist and forearm will be in a straight line. (Photo #76)



PHOTO #76

In starting down, Mr. Dante uses the description "lateral hip slide, with head back." To attain this he says, "the movement of the hips must be lateral and not turning. When the hips are moved laterally to the left from the top of the swing, they carry the weight along." Secondly, Dante teaches that "since we are twisted and wound up tightly at the top, any turning of our hips turns our shoulders too." The downswing must be identified by moving the hips laterally to the target, without allowing your head to move toward the target.

Dante finishes by saying "hand hit out of" eternal triangle, "let COAM take its course." First, the eternal triangle is the angle formed between the club and the left arm. (Photo #77)



PHOTO #77

Second is the Conservation of Angular Momentum (COAM). The Magic Moves are grip tight, hold the wrist position gained by the "take away" with your hands, hit through with your hands by using a lateral shift and let COAM take its course. COAM is that mysterious factor that makes the club head catch up to the hands without any effort on the part of the player to whip the club at the ball. The argument presented could be that this occurs mechanically but we are not dealing with an ideal, self contained mechanical system. We, are dealing with a human body.

Multi-flash photography shows us that in spite of every effort to increase the speed of your hands, they in fact, slow down through the impact zone. At this point the club head passes the hands. We benefit from this information by learning to "retain the angle for as long as possible" to increase club head speed.

In summary of Mr. Dante's method, I must say that he has an indepth understanding of the ingredients of the swing from a physical point of view. He talks in a very clear easy to understand manner but I don't feel he discusses the practical application of the swing well enough.

I don't hear him define the swing in relation to the target, or to the flight of the ball. I don't even hear him say how he makes the swing feel. His total presentation is aimed toward understanding what takes place during the swing of a good player but doesn't tell a poor player how to learn these ingredients.

I feel my method is more clear and more simple than Mr. Bertholy's and applies to all players of any calibre. Mr. Dante overlooks the latter.

The weak points of my method are sound criticisms. The most valid being that during the period of time it takes to learn to perform the exercises correctly (approximately 3 weeks and 1,000 swings) I urge my students not to hit golf balls. Of course they can hardly wait to "get at the ball" and I feel the ball intimidates them, retarding the learning of the exercises.

My method provides long term enjoyment and quick "repair" when used as an overall concept. It also can be separated into parts to adapt to the "needs" of a player's specific problem.

To make a proper golf swing requires a proper address position. A proper address position cannot be attained unless your golf clubs are adjusted to fit you. Since I am in the business of making custom made clubs, I always attempt a "low profile" introduction of my program to the student.

Generally I am very secure in my mind and am confident in its value. It is a method that I have spent hundreds of hours perfecting. My success rate is high. My students swing and play better. In conclusion, I feel a person receives value for their money when they take a lesson from me.

CREDITS

- | | |
|--------------------------------------|---|
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| 12. C.P.G.A. Professionals | Al Balding
George Knudson
Joe Noble
Joe Rice
Lloyd Tucker
Frank Mann |
| 13. U.S.P.G.A. Professional | Irv Schloss |
| 14. Photography | Mary Schurman |
| 15. Typist | Brenda Manley |
| 16. Production | R.H. "Tex" Noble |

MASTER'S EXAMINATION

QUESTION #1

It has been felt by many in this country that golf has not reached the potential it has in other countries. Please consider this statement and describe the ways you feel the golf professional and the C.P.G.A. can help to promote golf, improve the calibre of the game; and the construction of new golf complexes.

I am of the opinion that golf has not reached the potential in Canada that it should have attained. This is due partially to an attitude common among Canadians, that we follow the philosophies and trends found in the United States. This is true in many instances but it doesn't have to be that way. In fact golf could be unique if we wanted it to be. This is not the total problem, just a contributing factor, and is due largely to our geographical proximity. The United States is a very powerful and innovative international influence in the world. It stands to reason then, that we should be influenced by their programs in everything we do, golf included.

The Professional Golfer's Association of America and their "subsidiary" the Professional Golfer's Association Tour (P.G.A. Tour) have been leaders, world-wide, in golf development. Their dominant asset being the high profile Tournament Schedule. No other country has the benefit of such a strong vehicle as the collective talent displayed by the U.S. Tour Professionals.

Canada has several distinct disadvantages, the most obvious being climate or length of season. With an impaired calendar, the C.P.G.A. have found it difficult to co-ordinate a successful tournament program and therefore are not producing many international calibre players. It seems as though our actual tournament season is from June 15 to September 1, a period of about 10 weeks. A complete program of events should include the Canadian Open, the C.P.G.A. Championship and eight other events. These "other events" would have to be scheduled across the country and co-ordinated with the activities currently being vied for in each province. The result of such a "string" of events would be an opportunity for our population, young and old, to motivate themselves towards improvement and participation. People would try to

develop with incentive and competition. Proof being the Canadian players Dan Halldorson and Dave Barr and John Mahaffy and Tom Kite, U.S. players who currently play international golf as products of the former Peter Jackson Canadian Tour.

The C.P.G.A. has an obligation to develop a tour, however, we also have an obligation to educate golfers. Prior to developing new golfers and information hungry players, we have an obligation to educate our members. I am of the opinion that Canadian golf professionals who joined the Association between 1960 and 1975 were held from rapid development by the senior professionals of those years. Prior to 1960 golf professionals were contented people who worked many hours for very little pay. Usually they were fine players and had a basic concept with which they taught. Most of them taught with the method they played with. In general, the required qualifications were limited and so were the number of Club jobs available. During the period from 1950 to 1980, golf "boomed". More people played, courses were built and pressure was exerted on the C.P.G.A. to produce "qualified" professionals. No longer was "being a good player" enough. We were unprepared. This rapid expansion consumed assistant professionals and put them into Head Professional positions at a rate never before known to golf. The "progressive" members of our Association tried to maintain the rapid pace by forgetting the "old" qualities (playing and teaching) and stressed merchandising, marketing and accounting (the new needs). The "threat" or intimidation presented by this "new breed" caused a decline in support of the C.P.G.A. programs to develop its members' playing teaching and professional standards. By allowing a lower level

of excellence from assistant professionals, head professionals did not have to "upgrade" or excel. The "bottom line" is that our members could be better players, better instructors, have a better knowledge of the rules of golf and tournament organizing, and understand the need to inject something back into the game of golf.

A natural argument could be "how can you be a great player, a great teacher and still manage the pro shop facility so that it provides an adequate income"? Of course you can't be perfect at everything, however, it has been estimated that the genius, Albert Einstein, utilized about 10% of his mental capacity and the normal person about 7%. Surely with better training we could be more prepared than we are.

The C.P.G.A. has to re-organize its education programs and strengthen itself via the re-certification system and a Standardized Teaching Method. By producing more qualified people we can conduct better junior clinics, implement events at our Clubs that create interest and enthusiasm, teach our members how to play better golf and have fun doing it. Our Association has an obligation to conduct a high profile series of tournaments, a Canadian Tour and junior development events that will entice new golfers and stimulate the experienced by providing guidance and information from our trained members. We need to sell lessons like skiing has sold them. Skiers believe it to be humanly impossible to learn to ski without instruction. Make everyone want to take a lesson to become a part of the "group".

The C.P.G.A. has a "place" in reconstruction, if we are prepared to accept this new challenge. By understanding "what makes golf fun" i.e. a short pitch shot to an island green, learning how to swing, or understanding

the rules. "What makes it not fun" is a 260 yard par 3 to an island green and a five hour round. We can make large contributions. If our education included golf course maintenance and accounting, we would learn to build wooden retaining walls in ponds and bunkers i.e. Pete Dye as Hilton Head to cut maintenance cost. Or perhaps know the width of the cutting equipment, to provide access on and off greens, in and out of bunkers or over bridges. Accomplished golfers would know not to design a course with the first few holes on either nine being played into the rising sun.. A well educated professional will know "traffic patterns" to assist the location of the Pro Shop in relation to the clubhouse, first and tenth tee, car shed, club storage and bag drop area. Generally, the C.P.G.A. professional should be able to contribute from a golfer's point of view, a tournament organizer's point of view, and the administrative point of view, the advantage of efficient spending for the investors.

In conclusion, the C.P.G.A. should be producing Professionals who are expert in every facet of golf club operations from accounting to playing, teaching to merchandising, stimulating golf enthusiasm at his Club from the Rules of Golf, course maintenance and design, to management of people. He should be capable and complete in golf knowledge. For his own benefit he should learn the "art of negotiating" with his employer. Golfers in Canada could receive better instruction from the Professional if our Association could agree on a Standardized Teaching Method.

In general by spending more money to educate ourselves we would better serve Canada's 1 million golfers. The standard of play of the average player would be higher, his enthusiasm higher and his level of knowledge would be higher. By educating ourselves in every facet of the "golf business" we could better educate every golfer. These individuals would,

in turn, help us to generate incomes beyond our dreams.

In summary, perhaps the area we have failed in the most is in communication to other golfers, the ingredients in golf that make it appeal so much to ourselves.

QUESTION #2

You have been asked to evaluate a particular job at a club or course. Describe the methods that you would use in this evaluation. What specific factors would you look for? How would you rank these in terms of importance?

2. The evaluation of the position of golf professional at a Club is a very difficult and demanding task. It will require the evaluator to use every resource available. Assuming the reason for the evaluation is to make application to the position, each piece of information will ultimately affect his performance, ability to perform, his income and his future (including happiness and length of tenure).

However, before applying, a job evaluation requires the following information:

1. Is the job open?
2. Number of golfers in each category (i.e. men, ladies, juniors)
3. Number of rounds played annually
4. Sales volume (by type of product, if possible)
5. Approximate dollar value of inventory required
6. Number of lessons taught (including rates)
7. How much revenue does Professional receive for 1st tee services, range, etc.
8. Is there revenue for the Professional from the power cars?
9. Will there be a written contract and if so for how long?
10. Are there any benefits (i.e. hospitalization, life insurance, pension)?
11. Does the Club provide any other benefits (i.e. meals, housing, auto, dues)?
12. How many and what type of people will the Professional be required to employ and at what cost? Plus any other employees that he may be responsible for that he doesn't have to pay.
13. Are renovations required in the golf shop and at who's expense?

14. What other services not necessarily offered by the Professional will be required?

At this point acquiring information can begin with the Employment Committee, the past Professional, fellow Professionals in the area, members of the Club in question, manufacturers' representatives or in fact any source you wish to use. You should keep in mind the degree you wish people to be aware you are researching another position. (You may jeopardize your own current employment). You should receive permission to look. The following areas require consideration by you and your new employer:

1. Pull cars, who pays - collects
2. Family club privileges - (could determine how you will be treated in future)
3. Length of season - number of hours shop open
4. Retainer - how much
5. Insurance - who pays - what coverage
6. Green Fee collection - % for professional
7. Proximity of pro shop to cars, carts, caddies, range, tees, parking, bag drop
8. Water hole concession
9. Collection of accounts

QUESTION #3

Outline the responsibilities of the golf professional to his club and membership. Be specific.

T H E J O B D E S C R I P T I O N

General Duties

1. The Head Professional will perform such duties as are normally performed by a golf professional at outstanding golf clubs.
2. Locate and recommend competent personnel to be employed by the club as Assistant Golf Professional, Caddymaster, Starter, Assistant Starter, Shop Manager and Golf Car Maintenance Man, all at salaries established and to be paid by the club, and to supervise the service of such personnel when employed.
3. Provide competent golf instruction at the competitive rate for the local area.
4. Employ in the name of and at rates of compensation approved by the Club such help as may be required to operate the practice range and to clean, store and handle members' golf clubs and to supervise the performance of such duties.
5. Supervise the rental and use of golf cars and the maintenance of equipment for cleaning members' golf clubs.
6. Supervise, as directed by the Golf Committee, the starting of play by golfers.
7. Supervise proper charging of caddy fees, green fees and season privilege fees.
8. Supervise such rangers, if any, as may be employed by the club.
9. Supervise the operation of a Handicap system at such times and to the extent directed by the Golf Committee.
10. Enforce all the Club's rules and regulations governing the use of the golf course, golf cars and other golf facilities.
11. Operate and maintain a reputable pro shop and practice range staffed

with competent personnel and featuring quality merchandise and services.

12. Maintain a close relationship and co-operation with the Club's Greens Superintendent.
13. Administer and operate the starter and caddy programme with the assistance of appropriate Club committees.
14. Devote a reasonable number of hours to playing golf with members regardless of golf excellence; such play not to be considered a playing lesson.
15. Represent the Club in the area professional golf activities including the Local Section of the P.G.A. and in such state or national golf activities including the tournaments as his time will permit but only with the approval of the Club's Golf Committee.

A. Men's & Women's Tournament Committee

1. Meet with the Tournament Committee Chairman and Event Chairman for the purpose of preparing and planning the details of golf events in writing.
2. Secure adequate caddies and golf cars for each event.
3. Handle starting times.
4. Assign cars.
5. Prepare score cards and scoring sheets.
6. Post all event information on first tee Bulletin Board including all rules under which each event shall be played.
7. Prepare and distribute event information sheets for participants.
8. Secure bag boys and fore-caddies.
9. Have bags and caddies ready at first tee.
10. Keep the tournament field on starting time schedule.

11. Keep players infield moving.
12. Record scores.
13. Determine winners
14. Be available for rule decisions.

B. Junior Golf Committee

1. Determine which Juniors are qualified to play.
2. Instruct Juniors in the knowledge of golf rules and courtesies.
3. Advise parents and/or the Junior Golf Committee of problems and rule infractions.
4. Prepare and plan Junior golf clinics.
5. Prepare and plan with the Junior Golf Committee Junior tournaments for June, July and August.

C. Golf Car Operations

1. Take golf car reservations either by phone or by person from qualifying members.
2. Deliver golf cars to starting area.
3. Return golf cars to storage area.
4. Place golf cars on recharge.
5. Report mechanical deficiencies to mechanic.
6. Account for all golf cars at the end of the day.
7. Return all disabled golf cars to mechanic's Maintenance building.

D. Golf Shop Operations

1. Maintain pro shop in clean and presentable condition.
2. Keep shop open from time specified by management until bags and golf cars have been returned from storage.

3. Maintain merchandise at a reasonable level commensurate with member's needs.

E. Handicap Operation

1. Send master computer sheets to the data center for processing per schedule posted by the Handicap Committee.
2. Post Junior golf scores on master computer sheets.
3. Record changes requested by members on required forms.

Note: All changes requested by members should be accumulated in the Pro Shop prior to recording changes.

F. Caddy Operation

1. Secure and maintain a top flight group of Class "A" and "B" caddies.
2. Bring in enough "B" caddies each year to guarantee continuity of Class "A" caddies for future years.
3. Establish a caddy training program in the early spring and continue the program on an upgraded basis throughout the Summer.
4. Keep open lines of communication between the caddies, the golf professional and the golf committee.
5. Help organize and plan the annual Caddy dinner in conjunction with the Caddy Committee and the General Manager.
6. Ensure proper maintenance cleanliness of Caddy Housing facilities.

QUESTION # 4

Recognizing that proper training of your staff is of utmost importance not only to the success of your operation but to the future of the C.P.G.A. as well, specifically describe your ideal training program for your staff. How would you plan it? What would it consist of?

4. The proper training of staff is made substantially easier by proper hiring methods. To effectively "place" these people a complete analysis of the Professional's responsibilities must be recorded. Starting with the quality of service you wish to provide, combined with your staff budget, each position you will fill requires a "job description". Assuming a private Club situation and its budget, the full compliment of staff might include three front shop assistants, a starter, a bookkeeper, 2 full time back shop assistants, 2 part time back shop assistants, 1 part time power car maintenance person, two driving range aids and a general all-round aid.

Bull hawks (driving range aides) come from the caddy ranks. By hiring the most enthusiastic caddies, I subsidize their caddy income and create motivation for the other caddies to improve. These employees are taught the responsibilities of an employee to his employer, i.e. punctuality, reliability, cleanliness, co-operation, efficiency etc. After one year of employment, the better of the two range aids is promoted to become the power car maintenance person. Here he learns to scrub the cars, keep the storage shed clean and orderly, he monitors the level of gas and oil in each car daily, checks tire pressure, cleans all garbage off car and replaces the score card. In addition, the car mechanic teaches him minor repairs i.e. changing a muffler, replacing a spark plug, tightening battery cables.

During year three, our car maintenance man is promoted to the position of general all-round aide. It is here that he "fills in" on the driving range two days per week to allow each "ball hawk" to have a day off. He maintains power cars one day per week to cover that person's day off, and on the other three days (of a six day week) he sweeps the total exterior patio and walk area, of the Pro Shop, washes windows, washes the club

cleaning towels, performs repairs to pull carts and assists the back shop employees in the cleaning of members' equipment.

In his fourth year, our man/lady employee becomes one of the two part time back shop assistants. He learns the duties of the club cleaning, minor golf equipment repairs i.e. stringing woods, re-gripping clubs, replacing spikes in shoes. (Serving the members in a polite, efficient manner is stressed). A back shop assistant can remain in this position throughout his high school education period. Repeating his duties and implementing his knowledge he will learn traits and characteristics that will make him a valuable employee for any employer.

When our employee enters university he can become a full-time back shop employee for as long as he wishes. The university year fits nicely into the golf season in mid April and can be accommodated in the fall, with other staff. As a full time back shop assistant, we register him with the C.P.G.A. as a probationary assistant. During this tenure he learns management of staff (back shop), complete golf club repairs i.e. refinishing, reshafting, changing weights, adjusting lie and loft. He assists the front shop staff in inventorying the "spring time fill up" of sale merchandise into the front shop answering the telephone and dealing with the control of play on the first tee.

Hopefully, our man continues his interest in the C.P.G.A. apprentice program and completes each level of Lab Report as it is presented. The next place he takes in our staff is as starter. Here he uses his background in the back shop (using the members names) to control play and dispense power carts. He will spend many hours using the telephone recording starting times and accounting for power car revenue and most importantly dealing with people.

Since employing this person at about age 14 or 15 we now have a seven year (minimum) veteran who is close to graduating from university and has attained all or most of the C.P.G.A. apprentice levels. The remaining decision is "'A' exam or not?" However, we still have a long way to go yet. Perhaps we have encouraged him into the C.P.G.A. too soon, but on the positive side we have a product who is of great value. He will have a choice of taking a few years before entering the profession of his choice and training (university) or continuing on as a first class member of the C.P.G.A.

To complete the training over as the number three assistant, learning merchandising, selling, pro shop maintenance, daily reporting of cash sales and charge sales, general pro shop operations and assists the Head Professional in the teaching of junior clinics. This training continues up to the level of first assistant. Teaching golf is encouraged.

As a first assistant the responsibilities become mainly teaching and playing with the members, monitoring staff, following up on orders, maintaining an effective car fleet, assisting the bookkeeper and buying merchandise and stocking the pro shop with inventory. The first assistant learns accounting procedures from the bookkeeper. After his 12 year learning program he graduates with a university degree, C.P.G.A. class A classification, experience, a cultivated golf game (which we have worked together on since he was on the range) and a job with me for as long as I can afford to pay him.

QUESTION # 5

What do you foresee as the role (s) of the golf professional in ten (10) years? Use your observations on his present position as a foundation for your analysis.

5. It is my opinion, that a percentage of golf professionals have not maintained a level of excellence during the past ten years. However, during the same period, others have motivated themselves to advance their education in the golf industry, and are now in a position to capitalize.

The decade past, saw severe pressure exerted on the golf professional from "discount houses". The numbers of people who play golf stabilized after a dramatic growth period in the prior decade. Power cars became a major investment and profit producing venture. The "lavish" economy of the 1950's and the 1960's came to a grinding halt and Country Clubs began to realize that efficient management is a definite "must".

Unfortunately a net profit can only increase as a result of increased revenue, decreased costs or a combination of both. Golf clubs are limited to their revenue by their capacity to "handle people" and the amount each patron can spend at the facility per day. This leaves "expense side" reduction, which will place large expenditures under close scrutiny. Among these will be the costs of a manager, a superintendent, and a professional.

The Golf Professional who puts all of his education "eggs" into the merchandising "basket" will, along with the "do nothing" C.P.G.A. member, suffer the consequences during the 1980's and probably well into the 1990's. His first problem will be realizing he has a problem before it's too late. Secondly, upon the realization, accomplishing the back-log of material before advancing to what is now probably "middle age".

Very difficult economic times are ahead for Canadians, particularly because at the writing of this paper the Honourable Donald McDonald has just been retained to investigate Canada's economic position. This indicates that our government has allowed our country to wage a fight against a poor

economy without any plan or direction for the past three years. It is difficult to be unpatriotic, but our neighbours (the United States) although they suffer a stifled economy are doing so as a direct result of their own course of action, be it right or wrong. Therefore, I envisage Canada's strife lasting at least ten years.

Owners of golf clubs, memberships, Boards of Directors and other voices of authority will be forced to impose stringent managerial controls or go into bankruptcy. The well prepared C.P.G.A. member will be versed in accounting, personnel and training management, agronomy, rules of golf, merchandising and promotion, golf instruction, handicapping, playing, junior development, power car management and many of the other attributes found in any top calibre business executive. These abilities will qualify him to expand from the position of Golf Professional to Director of Golf (in charge of every aspect of golf at the facility from playing, to teaching, to organisation, to course conditioning). Perhaps the facility operators will use the Professional as a Sports Director to manage all sporting activities at a multiprogrammed complex. Or perhaps, ultimately as the General Manager.

Financial "corners" are going to have to be "cut" and who better to "cut" them than someone who knows, loves and understands golf.

Economic burden will force "discount houses" out of business because their low percentage of mark-up will not cover their business costs. Inflation will put the retail cost of golf clubs at over \$1,000. for a set. Golfers will become more knowledgeable in equipment as T.V. tries to make broadcasts more "colourful" by interviewing the tour players. Inevitably, these players will relate equipment information as it pertains to themselves, but the general golf public will learn and demand more of their professionals.

To fit this new mold the leaders of the C.P.G.A. will establish club making and repair facilities at their golf shop. Custom clubs can be manufactured and retailed at a lower than mass produced price, plus generate a substantially higher return.

To assist the future professional will be computer technology in teaching, fitting clubs, record keeping, inventory (buying and selling) handicapping and regulating play. The professional who has kept abreast of change, will place "salesmen" in the golf shop to collect guest fees, sell merchandise and distribute power cars. Golf will be the loser and perhaps the C.P.G.A. The Professional who studies a new innovative market is going to witness development of synthetic clothing that will improve until no noticeable difference can be seen between natural and synthetic fibres. Courses are going to face re-design to accomodate a smaller playing surface that requires less real estate, less water and less maintenance as well as less time to play.

Power cars are very close to being operated on solar power and gliding along on a stream of air that will have the car float above the ground.

C.P.G.A. members, prepare. Along with every business in the world, those who are ready to accept the challenge, will see more rapid and more exciting change than in any other period of history.