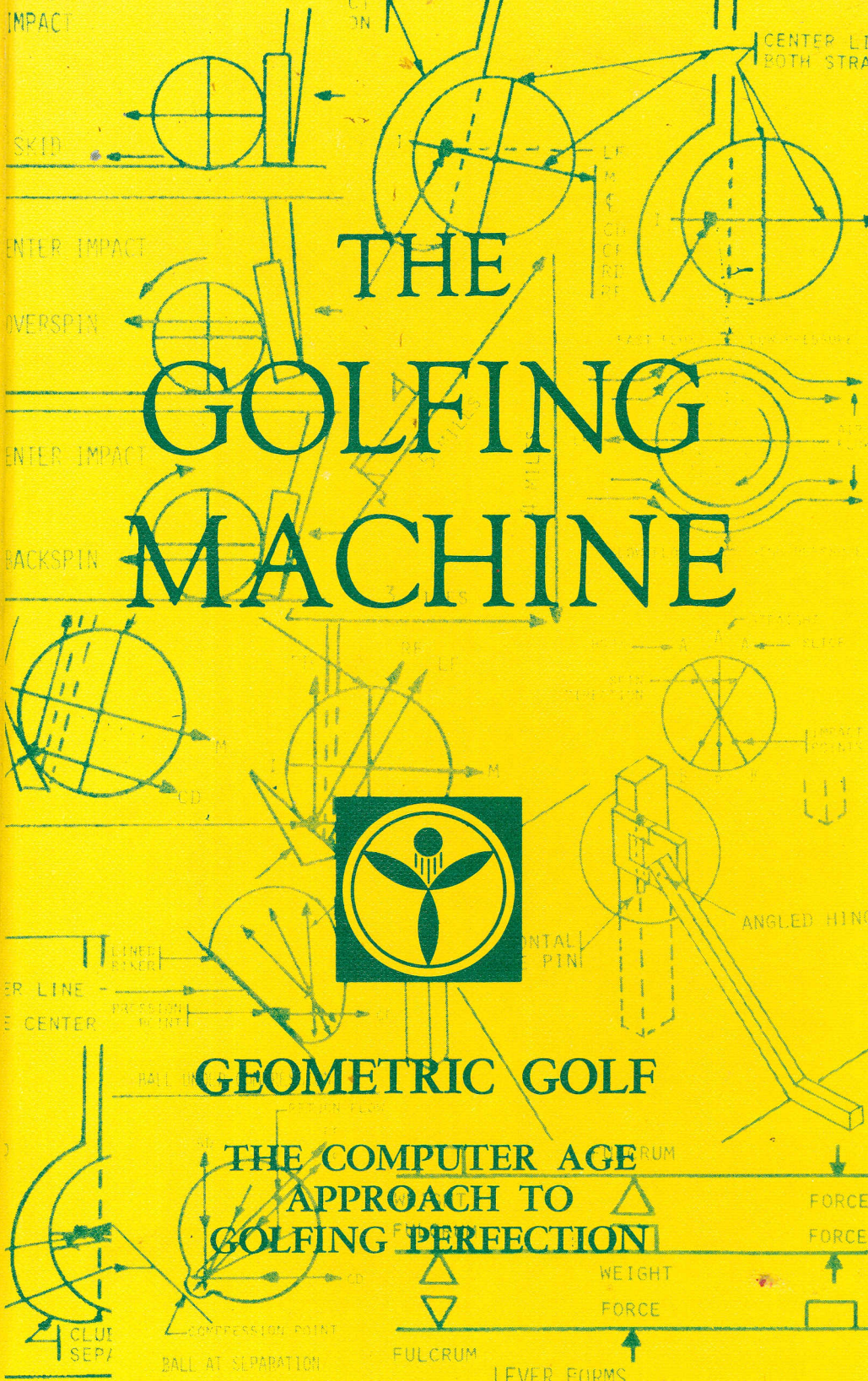


THE GOLFING MACHINE



GEOMETRIC GOLF

THE COMPUTER AGE APPROACH TO GOLFING PERFECTION



THE
GOLFING MACHINE

By

Homer Kelley



The Star System

of

G.O.L.F.

T.M.

(Geometrically Oriented Linear Force)

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PREFACE

INTRODUCTION TO THE BOOK

It may be that an octopus—or a “thing” from outer space—would need a different procedure, but for people-shaped golfers there is actually only “one swing,” as depicted in Chapter 8 and discussed in Chapter 7. This Basic Stroke is not a basic *procedure* but its basic *geometry*. Almost anyone can do an imitation that could appear to the untrained eye to be as good looking as those of many experts. And all that would need to be added would be more precision in the Component relationships. And that this book can supply. In fact, that is all it is intended to supply. Without that “Basic Motion” it couldn’t even do that. See 3-0. The relationships in the Golf Stroke can be explained scientifically only by geometry, because geometry is the science of relationships. So learn Feel from Mechanics rather than Mechanics from Feel. “Alignment Golf”—Feel from Mechanics—dispenses with all dependence on “mandatory” Positions, which can be perfectly executed and still miss the ball. They facilitate things but guarantee nothing—unless you know the relations they are supposed to facilitate. Alignment utilization is indispensable but the utilization **procedures** are optional. Alignment Golf simply smothers Position Golf, so translate your “Position Procedures” into “Alignment Procedures” as fast as you are able to do so.

And the number one alignment is the Flat Left Wrist (Law Of The Flail 2-K). Without it, more information means only more confusion. There is much information herein that you won’t need but there is none that someone won’t need. This system ultimates in its own simplification—The Triad mentioned below. But without the supporting detail herein, that simplification could not have been conceived or supported. This book can support individual “MY Way” procedures but no “THE Way” theory.

The Golf Stroke involves mainly, two basic elements—the Geometry of the Circle and the Physics of Rotation. And only two basic Strokes—Hitting and Swinging. The geometry (for “uncompensated” Strokes) is the same for both. And for all Clubs and Patterns. But, basically, the Physics of Hitting is Muscular Thrust, and of Swinging, Centrifugal Force. And herein, “Motion” is Geometry — “Action” is Physics. Hitting and Swinging seem equally efficient. The difference is in the players. If strong—Hit. If quick—Swing. If both—do either. Or both.

PREFACE

The Geometry of Golf has two aspects—the facts and the illusions, visual and sensory. When the facts are understood, the illusions not only cease to mislead but can be utilized.

The Physics of Golf does not specify special “Golf Laws”—only the simple, universal Laws of Force and Motion that you use every day because you cannot move yourself or anything else except in compliance with them. Physics merely takes the “seems as if” out of things. Including Golf.

The mental aspect of Golf is concerned with the Computer (Chapter 14) and its programming, reducing the complexity to a repeatable but adaptable sequence of alignment-sustaining motions and “feels” as the player has selected them for the situation at hand.

It's not instant perfection but continuous progress toward a practical goal—mastery of the STAR SYSTEM TRIAD: the Three Imperatives (2-0) applying the Three Functions (1-L-A/B/C) through the Three Stations (12-3)—which should be sought.

As you apply this System you may suddenly realize you are now *actually* doing what you had always merely *thought* you were doing.

First use of this system might be to understand your present game before you abandon, replace or scramble it. It may not be all that bad. At least it's familiar. Besides, habits can be harder to break than to reshuffle a little. This book may point up why you don't play better but also why you play as well as you do. See 1-H and 14-0. Does it all seem as if it would just “take too long”? What if you had worked out one step each week—or each month—for the last two years? Or the last five years? How about the next two? Or five? At the very worst it's the guided struggle versus the blind struggle. With this book you can do a lot of learning in your armchair.

The principles set forth in this book will greatly benefit many other activities where manual dexterity is required. It will be realized that *conscious* hand manipulation is indispensable in the learning process. Those involved with swinging components will grasp the geometry of their Force and Motion. And it will be seen that great diversity of procedure can be differentiated and patterned in total detail. Every part is carefully related to every other part to be one complete harmonious whole—as a whole or piece by piece. It is arranged in the order best suited to point up its continuity and completeness and the flexibility inherent in its use of the reference numbered headings for research and lesson assignments and for the location of Stroke Pattern selections. Chapter 12 and the Index contain detailed instruction on this invaluable feature of Cross-referencing.

Please remember this is intended to serve as a manual and tries to adhere to a textbook style of writing which customarily eschews selling, debating, reminiscing, opinions and hilarity. The presentation is basically “technical writing” but, for its emphasis, with a definitely conversational style through-out the book. The capitalization, as discussed in 1-H, may seem unfamiliar and confusing but only at first glance. The “un-golf-like” terminology has no hidden or “cute” applications—they’re just plain dictionary English. Uncovering previously unknown elements of Golf simply mandated that terminology be adopted to express them. So don’t turn away because the truth looks too complex. Stay with it a while and you’ll soon find it all very helpful and comfortable. After all, complexity is far more acceptable and workable than mystery is.

PREFACE

Approach the book as a four step process using the lists below.

1. Follow List #1 as sequenced (ignoring cross-reference numbers) until you grasp the essentials (more or less) of each group.
2. Move to List #2. Study each Chapter as sequenced, ignoring all cross-reference numbers.
3. Start the preliminary assembly of your selected Pattern from Chapter 12, checking all cross-reference numbers.
4. Use the book as an encyclopedia (or tips) on subjects of interest.

List #1

- | | | | |
|----------------------------------|-----------------------------------|--------------------------|---------------------------|
| 1. Preface,
Table of Contents | 2. Chapters
1, 12-0, 14-0 | 3. Chapters
8, 9, 7-0 | 4. Chapters
10-0, 11-0 |
| 5. Chapters
12-1-0, 12-2-0 | 6. Chapter 13,
Index (General) | 7. Chapters
2-0, 6-0 | 8. Chapters
3-0, 3-A |

List #2

Chapters 2, 6, 7, 3, 12-1, 12-2, 9-1, 4, 5, 9-2, 9-3, 12-3.

This book is dedicated to Joe Duffer and Joe Pro for keeping golf alive and is intended to serve as the Duffer's Bible, the Golf Nut's Catalog, the Circuit Player's Handbook and the Instructor's Textbook.



Homer Kelley

FIRST STEPS

1-F. RIGHT ARM OR LEFT The “mystery” of the Mechanics of Golf fades away when Right Arm participation is understood (6-B-1). Whether its participation is active or passive is difficult to detect visually because in either case the Left Arm is ALWAYS SWINGING and the Right Forearm is ALWAYS DRIVING. But it is always a Left Arm Stroke unless the Right Elbow replaces the Left Shoulder as the center of the Clubhead Arc. (10-3-K)

This, alone, does not properly separate “Hitters” and “Swingers” because it is possible to “Swing” the Club with either Arm but only the Right Arm can actually “Hit”. See 10-19. However, you will save yourself much anguish by using the Right Hand just for sensing and controlling acceleration and the Left Hand just for sensing and controlling alignments. Right Hand—Clubhead. Left Hand—Clubface. Essentially, the Left Hand should be consciously Monitored (5-0) from Start up (8-4) to Finish (8-12) so there will be no unintentional or panicky wobble. See 6-M-0. And variations in Elbow Bend and/or location during Release will disturb Clubface control by the Right Arm, making it an inferior procedure (7-2). Only the Right Arm and Shoulder are in a position to “Push.” Everything else in the Stroke “Pulls.” Study Component 19. So, with or without Shoulder Turn, the Right Arm can contribute Hand Acceleration to the Downstroke and support all elements of “Resistance To Deceleration.”

1-G. APPROACHING THE GAME Actually, this entire first Chapter concerns the change of *approach* required by the advent of G.O.L.F. (2-0). Scientific Golf means you can never consider the game an enigma. Whether you approach the beginning per 9-0 (Putting) or the end per The Preface (The Triad) or somewhere in between, without the Key of Educated Hands per Chapters 4 and 5, more information only means more confusion. G.O.L.F. is a game for thinkers, and as detailed as this book is, it is still greatly dependent on thinking players. Therefore, it is very important that the player have an understanding of the laws of geometry, structure, force, motion, etc., to properly apply these Mechanics as the player’s increased skill requires a tightening of tolerances of permissible deviations in execution. Hitting the Ball is the easiest part of the game—hitting it effectively is the most difficult. Why trust instinct when there is a science. The instructor can only inform and explain—the student must absorb and apply. When better judgement is the margin of victory, it is misleading to give unscientific procedures the credit.

GENERAL INFORMATION

1-H. MISCELLANEOUS NOTES Terminology is a matter of selection. Selections herein are based on the power to describe, differentiate and categorize. And also on brevity and euphony. The appropriate term promotes communication. The extreme brevity herein is dictated by the advantages of holding such voluminous information to a one volume Handbook. Because of questions of all kinds, reams of additional detail must be made available—but separately. And probably endlessly.

Every separate item in the Stroke is properly understood only when learned and mastered separately and its separate identity maintained. The Golf Stroke is one piece like an ocean liner—not like an Indian dug-out canoe. Proper design and assembly are imperative. Then interchangeability, correction or refinements are simple adjustments.

There is little excuse for forcing the average week-end golfer—*who has some strong tendency or other*—to adopt any procedure or Stroke Pattern that calls for the elimination of that tendency. It is far easier to develop a Stroke Pattern that properly compensates for it. Change the factors that are easily controlled to fit those that are difficult to change.

There is no effort to classify any Stroke Pattern as best or worst, except on the basis of Mechanical Advantage. But there is undoubtedly a best “central” Stroke Pattern for each individual. Professional assistance should be employed to work out the most suitable basic Pattern. Component Variations (Chapters 10 and 11) are listed progressively—that is, where possible, from the simplest to the most sophisticated or else from the least restrictive to Zero.

In the interest of brevity, regardless of how often any point is mentioned, every effort has been made not to discuss any one aspect more than once. So a complete definition can only be the sum of the comments about it. And consider, in a definition, the terms used as against those that might have served but were not used. The unused terms may have been partially correct but the ones used are the nearest perfect for the intended connotation.

GENERAL INFORMATION

Capitalization of the first letter is employed to restrict the connotation of a term to the golfers application *only*. Which is narrower than the general application in some instances and wider in other instances. Note especially that the capitalized term may include its entire classification or only a player's Stroke Pattern. As a term is specifically defined herein, that is the basic connotation which is always a dictionary definition but not necessarily that of *Physics, Electrical, etc.* And the dictionary is generally considered a standard of precision. Scientific terms in quotes denotes a loose application with obvious intent, because no better term seems available. Measurements given herein are for the golf course rather than for the laboratory but the laboratory will show them well within acceptable tolerances. Clarity and usefulness are the only motive. The result is that this book provides a complete, unified golfing terminology.

STATEMENT OF PRINCIPLE

INTRODUCTION TO MECHANICS

2-0. GENERAL To Star System Golfers the letters G.O.L.F. instantly separate this system from other systems. Which systems only teach GOLF (without the periods). It has also been given the following application.

GEOMETRICALLY ORIENTED LINEAR FORCE

Principles are simple—their applications get complicated. The Principle of Golf is the “Line of Compression.” The Mechanics of Golf is the *production and manipulation* of the “Line of Compression.” The Secret of Golf is sustaining the “Line of Compression.” Precision is recognizing and reconciling minute differentiations.

A precision Golf Stroke includes three Basic Essentials and three Basic Imperatives.

—A. The Three Basic Essentials are:

- 1. A stationary Head
- 2. Balance
- 3. Rhythm

—B. The Three Basic Imperatives are:

- 1. A “Flat” Left Wrist
- 2. A Clubhead Lag Pressure Point
- 3. A straight Plane Line

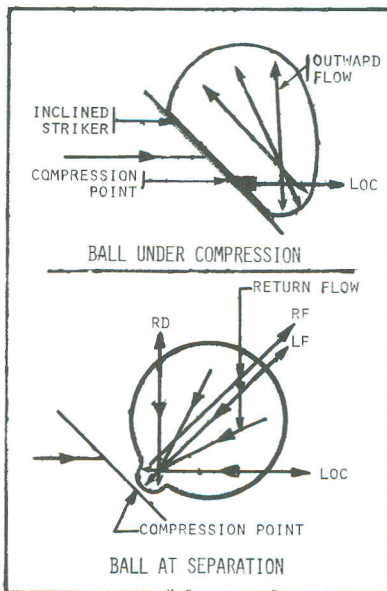
Every component of an efficient and dependable Golf Stroke has a proper relationship to every other component, and that relationship is geometrical. This chapter is a brief statement of these relationships. Study 1-H in this connection.

Because this book is based on Law—the geometry and physics of Force and Motion—this chapter is included to show those who understand such things, how they are applied herein. Therefore the terminology is that with which they can relate. So whatever you can glean from this chapter, you are that much ahead. The Three Imperatives and Essentials operate to correct faulty procedures, so if they seem elusive it is *invariably* because you are trying to execute them *while you hit the ball—in your accustomed manner.* That *must* all be reversed. Learn to do those things even if you miss the ball—until you no longer miss it. *There is no successful alternative* (3-B).

BOUNCE

2-A. RESILIENCE The response of the ball to different applications of force is the factor that determines how force must be applied to produce a desired result.

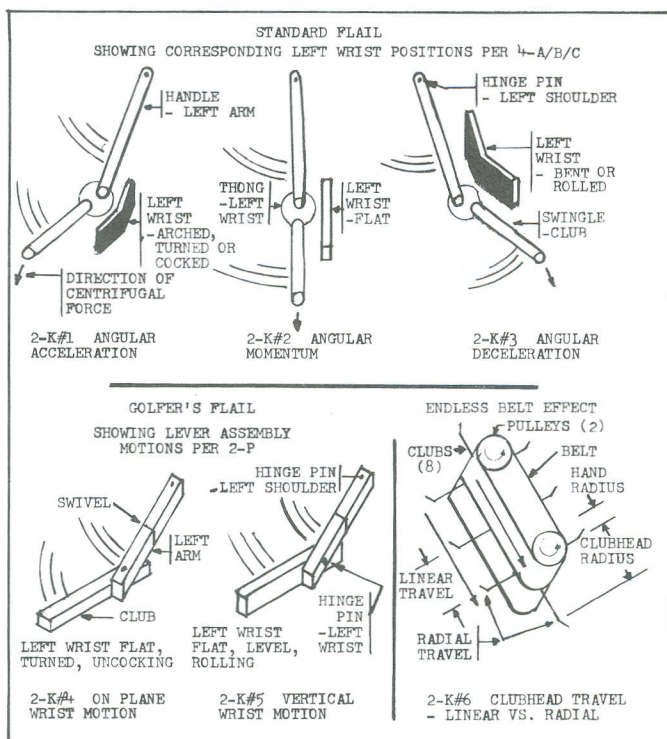
Resilience is the key factor in ball response. Neither a rock nor a spoonful of clay will act the same as a golf ball. The ball is subjected to a violent deforming compression. The ball is actually distorted, not compressed—except for reduction of one dimension. Rubber is incompressible. Trapped air bubbles can be compressed—but not the rubber itself—it flows. It flows in two directions—but acts like a solid in the third. This third direction is the direction of the compressing force. The momentum of the violent return flow after impact also distorts the ball by exceeding the normal dimension of the compressed point. The “kick” given to the ball by this action is an important factor in ball response. Roll of the ball on the face of an inclined striker does not account for all the action produced by such an impact, especially in imparting spin to the ball. When the direction of the compressing force does not pass exactly through the center of the ball, a spin will be imparted to the ball. It will rotate on the plane of a line drawn from the line of compression to a parallel *center* line.



2-A. Resilience.
See 2-C-1 #1 for Symbol Legend.

THE FLAIL

If thrust is applied only to the Left Arm (Handle), the Clubshaft (Swingle) will perform more like a Rope Handle (rising Clubhead pull), but if prestressed by Clubhead Lag Pressure Point pressure, more like an Axe Handle (steady Clubhead Inertia). However, the Primary Lever Assembly is only somewhat flail-like. That is, it is bolted together as with a hinge pin, rather than tied together with a thong, so that it can only be "Cocked" and/or "Rotated" per 4-B and 4-C and cannot pass the "Handle" (4-A-2) while moving toward full extension per 2-P. This insures the Imperative Flat Left Wrist (1-L, 2-0). Study 2-F, 6-F-0 and 10-19. As with the standard flail, the true and proper direction for its mass to move is "downward On Plane" regardless of the incidental appearance of moving "forward On Plane". *Always from The Top*. This is indispensable for both Hitters and Swingers for inhibiting Clubhead Throwaway. Study Sketch 2-K and Chapter 2-P.



2-K. Lever Assembly Motion—6-A. Law of the Flail.

PROGRAMS

3-B. PRACTICING AND PLAYING In one sense, there seems to be two large classes of golfers. One spends their life “practicing” without ever getting around to “playing.” The other dives right into “playing” and disdains any “practice” other than “just hitting that ball.” The difference is merely in where the primary attention is directed. If the points of techniques under consideration—being practiced—are the primary purpose of the action and have top attention, so that Impact is sacrificed rather than disrupt the selected procedure being practiced—that is “Practice.” And where the ball goes can be immaterial.

If this attitude is reversed and everything is secondary to getting the Clubhead against the ball, willy-nilly, as nearly right as “Feel” alone can manage, so that—ALL THE WAY DOWN—the attention is riding hard on the “Hands-Clubhead-Ball Relationship” with a relatively shadowy mental impression of techniques (fading off behind some particular special-purpose procedure for the situation at hand)—that is “Playing.” And where the ball goes is important information. Even this must be practiced diligently. Become TARGET CONSCIOUS. Study 7-23.

So learn to “Practice” a technique into “feel” and then “Play” it into “Computer” dependability. Then go on to the next Component or Alignment needing attention and give it the same one-two punch. To develop skill at golf your “attention span” must be at least as long as your Swing. See 7-23. Take advantage of the fact that the Hands are better at moving into a position than at holding a position. This is especially effective with Wrist Action (10-18) and Release Motions (4-D-0). And the longer the Club the more your errors tend to be magnified.

“Practice” is observation, selection, adjustment, etc.—the flexible “researcher” approach. “Playing” is concentration, discipline, supervision, execution, etc.—the inflexible “performer” approach. Neglect neither. For instance—the *first* wobbly point in your Total Motion (12-3), not Impact, is where you should be working. Those who work constantly—and fruitlessly—on Address, Body and Impact actually lack Educated Hands to get them through Start Down—invariably. See 2-N. Inability to execute a *full* Pivot Stroke at one half and one quarter speed as smoothly as at full speed indicates a flaw in the full speed procedure. Don’t get trapped in the wrong “approach”. Continually check your execution against 12-3.

SETTING UP

3-F-5. THE ADDRESS ROUTINE Most misshots are lost at Address—by not mentally spelling out exactly the selected Stroke Variations and their technique and Feel. The most effective check-out procedures for both Practice and Play are:

- 1. The Practice Stroke
- 2. The Waggle—Address and Start Down
- 3. The Forward Press

And usually in that order. Repeatedly if necessary. Actually “Address” includes all preparations prior to Start Up. By which time the Hands completely replace the Club per 5-0. Practice Swing and Waggle should be over the top of the Ball to establish the inside-out Angle of Approach (10-5-0). Stopping at the Ball encourages Quitting (6-D-3).

The Practice Stroke is primarily a full scale rehearsal of the Zone #1 components (the Pivot), especially the Hips and Shoulders. Even for Non-pivot Strokes. Is the “Zero Pivot” partial, relative or total? Remember also, the Plane, Hand Action and Loading elements need verification. And especially the blur of the Clubhead Path per 2-J-3. With or without a Pivot, it’s the Feel of your Total Motion (6-P). Or your “Acquired Motion”. At least your “Basic Motion” (3-0)—that framework on which your Stroke Pattern Components are arranged and adjusted—the “Tie That Binds” your game together. See 14-0. It is an indispensable part of Imperative #3 (2-0). Through it all, check and recheck Rhythm (2-G). Even through the next two steps also.

The Address Waggle is a miniature reproduction of the action of the Zone #2 components through Impact—checking out the Power alignments. That is—the Grip and Hand action applications of the Accumulators and Pressure Points. Especially the On Plane location *and* direction of the Hands *and* Clubshaft for Impact. The “Start Down” Waggle does the same for the Top alignments and could be treated as part of the Practice Stroke. It’s a “Look, Look, Look” situation (3-B)—especially for beginners—to develop Monitoring skill. It should be repeated until the motion is being satisfactorily executed. It can, and should, be taken on through the Address Waggle area. Check for On Plane Clubshaft and Right Shoulder (2-F), for the Right Forearm tracing the Delivery Line (5-0, 10-5-0) and for “Clearing the Right Hip” (2-N-0, 10-14). Returning to Address Position may become optional. All this gives a clear picture of the Downstroke activities—instead of the usual “Downstroke Black-out.” See 7-2 and 12-3-18.

SETTING UP

The Forward Press is Fixing in mind the appearance and feel of the Zone #3 (Ball Control) Components at Impact by shifting the entire Machine, per Stroke Pattern, to the Impact position. Verify six alignments:

- A. Clubface-to-Target Line (2-J-3)
- B. Grip-to-Clubface (2-G)
- C. Hands-to-Ball (4-D)
- D. Plane Angle (2-F)
- E. Pressure Points (6-C)
- F. Right Forearm Position (2-J-3, 6-B-3-0-1)

Normally, the Address Position is resumed, if only momentarily, before the Start Up, to retain the advantages of the Adjusted Address position. Balance, Grip (7-2) and Plane Line (10-5) must be verified before every shot as long as the game is played.

3-F-6. EXECUTION All quick, jerky and wobbly motions are improper execution. Neither the Hands nor the Club are flipped or swished around haphazardly. The ideal—even with an Automatic Release—is to be very deliberate, positive and heavy. Never dainty. Shorten the Stroke, slow the Stroke or delay the Release until a positive Clubhead Lag can give the Hands a *heavy* Clubhead to drive (or swing) against the ball—at all speeds. See 6-F. Erratic execution indicates loss of Rhythm (2-G).

And a flimsy Power Package structure indicates lack of Extensor Action (6-B-1-D) and/or neglect of the Flying Wedges (6-B-3-0-1). Or faulty Translation. Or, it may be that you are attempting to incorporate incompatible Components as discussed in Chapters 1-K and 13. Any procedure—whether Practicing or Playing—that produces awkward or un-golf-like positions or motions is being misapplied. Go back and get it straight immediately—starting with 3-0 and 3-B. Learning step-by-step to maintain the essential Geometry per 5-0, under all conditions, alone leads to a MASTER'S level of execution. That is—with and without Wristcock, with and without #3 Accumulator, with any Hinging, with any Plane Line Combination (10-5) from any Ball Location, Hitting or Swinging, with Right Forearm Takeaway (7-3) and with a motionless Right Wrist.

THE GATEWAY

4-D-1. THE FLAT LEFT WRIST This section is included to stress the importance of the Flat Left Wrist during Impact. Study 2-P and 10-18-B. “Flat Left Wrist” and “Grip” refer to the Strong Single Action Grip Type 10-2-B. This is a highly dependable visual check for compliance with the Law of the Flail (2-K). Carefully study 3-F-7.

A Double Wristcock (10-18-B) is the Bending of the Left Wrist at the Top of the Stroke in addition to the Wristcock. All Wrist positions and motion may remain correct until the Release, where, for a variety of misconceptions, the Right Wrist is allowed to Flatten. Any loss in Impact Fix Right Wrist Bend *during Release* immediately becomes Left Wrist Bend—Clubhead Throwaway. Which starts the Club swinging from the Wrists—in an “inside” and “upward” motion—the Clubface is rapidly Closing and the Clubshaft becomes “in-line” with the Right Forearm instead of with the Left Arm.

Driving the Clubhead toward the *Green* (Steering), instead of toward the Ball (2-P), is the great disrupter of the Flat Left Wrist. See 7-8 and 7-19 and remember to take the whole Primary Lever Assembly—the Left Arm, the Hands, Clubshaft and Clubhead (2-N)—into Impact. It is the Hands AND Clubhead—not just the Clubhead—that define the Plane. See 2-L#2. Take a very “short” Grip and practice swinging back and forth with the top of the Clubshaft against the inside of the Left Forearm until you can hold the Wrist steady with a normal Grip. So—there must be the Flat Left Wrist. Or its equivalent (10-2-G). Or a compensation (6-D, 7-19, 6-C-2-E).

Hitters, especially, must learn to straighten the Right Arm without flattening the Right Wrist. Practice doing just and only that—diligently—with and without a Club. Then learn to “float”, from The Top through Impact, an inert, unstressed Right Wrist with its Impact Fix degree of Bend. Study 2-C-0 because deviation in any element of the Three Dimensional Downstroke is the most difficult Throwaway trigger to locate and eliminate.

TRANSFER POWER

6-B-3-A. MAXIMUM POWER for Swingers is obtained by using the Standard Wrist Action (10-18-A) with Automatic Snap Release (10-20, 10-24-E) and maximum Radius (6-B-0). Plus the transfer of the residual Clubhead velocity of Accumulator #2 (7-18). Study 2-P and 10-3-D. But the Hitters use Single Wrist Action (10-18-C) because they use a Cocked Right Elbow and Angled Hinging per 7-20, 10-3-K and 10-11-0-3 whether the Left Wrist is Cocked or not. So, unless it is "Zeroed Out," there must always be a definite Accumulator #3 "Overtaking" Action.

6-B-3-B. ZERO ACCUMULATION is obtained by merely reducing the Hand-Clubshaft angle to zero by dropping the Clubhead into a Reverse Wristcock condition (FVU), or by moving the Clubshaft up into the cup of the Left Hand. Placing the Clubshaft anywhere between the Heel and Cup of the Left Hand will reduce its angle accordingly but will not alter its Rhythm (2-G) until Zero position is reached.

6-B-3-C. MAXIMUM TRIGGER DELAY for Swingers is the use of Trigger Types 10-20-D or 10-20-E for a truly Automatic Snap Release (10-24-E). But the Hitter uses the Right Arm Throw 10-20-B per 6-B-3-A above. And study 7-20 in this connection.

STEP TWO—POWER LOADING

LAG AND THRUST

6-C-0. GENERAL “Loading” means establishment of the Lag, Drag and Thrust—at the selected Assembly Point (10-21) by the selected Loading Action (10-22)—calculated to produce the necessary Down-stroke Thrust and Impact Force for the situation at hand. “Lag” defines the condition of “trailing,” or “following,” and can, and usually should, exist to some degree at every point in the Stroke from feet to Clubhead. Every Lagging Component places a Drag on its preceding Component, which is proportional to the Rate of Acceleration of the leading component.

Pivot Lag (9-1) is Body Power for Swingers (2-M-4), launching pad for Hitters (2-M-3), and for both, operates like a “gear train” to extend the Swing Radius of the Primary Lever to any point from the Shoulder Turn on down to the Feet (Zone #1). Both Inertia and the Moment Arm of the Thrust act the same in that the farther from the center the greater the authority.

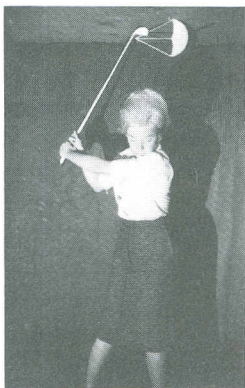
Accumulator Lag (7-19) and/or Thrust (7-11) determine the amount of Power generated by the Power Package—Zone #2 (9-2).

LAG AND THRUST

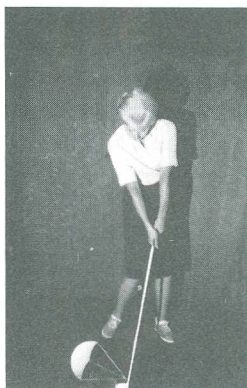
Clubhead Lag (7-19) promotes even and steady acceleration, assuring dependable control of distance. The Power Package utilizes four types of Thrust:

- 1. Accelerating (Accumulators driving the Lever Assemblies)
- 2. Non-Accelerating (Extensor Action supplying Power Package Mass)
- 3. Acceleration Control (Lag Pressure Point sensing Clubhead Inertia)
- 4. "Centrifugal Acceleration" (Centrifugal Force pulling the Clubhead toward its In-Line condition)

CLUBHEAD DRAG



6-C-0 #1. Start Down.



6-C-0 #2. Impact.

THRUST

6-C-1. PRESSURE POINTS The Force to be applied for the movement of the Lever Assemblies—both ways (opposite pressures 6-B-1-D)—is exerted against the Club (7-11) through Pressure Points—of which there are four.

- #1. The heel of the Right Hand where it touches either the Left Hand thumb or the Clubshaft (as required by the Grip used).
- #2. The last three fingers of the Left Hand.
- #3. The first joint of the Right Hand index finger where it touches the Clubshaft.
- #4. Wherever the straight Left Arm contacts the left side.

6-C-1.
Pressure
Points.
#1. Black
Arrow.
#2. White
Arrow.
#3. Striped
Arrow.
#4. Edged
Arrow



THE SECRET

6-C-2-0. CLUBHEAD LAG is the "Secret of Golf". It is simple, elusive, indispensable, without substitute or compensation and always present (6-C-1). It *can* be any one or any combination of Pressure Points, selected to sense Clubhead Acceleration rate and direction (2-M-2), but herein, unless otherwise specified, always refers to Pressure Point #3. Establish your "normal" procedure per 2-M-2, then its "plus" and "minus" variations in five yard increments. It also has an equalizing application—that is, in minimizing swing-weight differences. Your "normal" pressure will move lighter Clubs faster and heavier Clubs slower—the change in Approach Speed being fairly well compensated by the opposite effect on Separation Speed (2-E, 2-F, 2-M-1, 2-M-2).



6-C-2-0.
Clubhead Lag.

THE SECRET

6-C-2-A. THE ESSENCE of Clubhead Lag technique is that it is *always* both Aiming *AND* Thrust. Passive—it is *primarily* Aiming the Lag Pressure. Active—it is *primarily* Thrusting the Lag Pressure Point. The Orbiting Clubhead does not seek out the Ball—it seeks out the Delivery Line. But never directly—only via the Right Forearm and the #3 Pressure Point per 2-F, 5-0 and 7-3. It is guided along that Line to the Both Arms Straight configuration by the straight line thrust of the #3 Pressure Point toward the Angle of Approach quadrant of the Ball—or Aiming Point—per 1-F, 1-L-9/10, 2-J-3 and 6-E-2.

The Clubshaft is stressed by the weight of the Clubhead resisting a change in its direction or velocity—which is Acceleration. Acceleration bends the Clubshaft during Radial Acceleration (10-19-A). Change of direction bends it during Longitudinal Acceleration (10-19-C) which may *be*, or just *include*, the Clubhead Lag Pressure Point in addition to its main function of Acceleration Control. From Putter to Driver, the Clubhead Lag technique is indispensable.

If the Pressure Point pressure that produced the initial Clubshaft flex is maintained it will maintain the flex also. So the pressure will be a steady smooth Thrust from the entire Power Package Assembly, and will produce a constant rate of acceleration for the Primary Lever Assembly. If the Pivot moves the Right Shoulder at the same speed as the Power Package—or the Primary Lever Assembly—the Accumulators will not be Released by this action until the Right Elbow can straighten. Even then the Clubhead Lag is still maintained—it has *NO* Release Point. Establish a “normal” Right Wrist Bend for Release—either frozen at some point, or moving from Maximum to Minimum Bend as the Ball Location is moved away from Low Point and/or the Basic Stroke changes the Elbow location (10-3) — because the Right Wrist Bend, along with Ball Location and Plane Angle determine the precise RIGHT FOREARM ANGLE OF APPROACH (7-3).

POWER PACKAGE

6-C-2-B. ANGULAR ACCELERATION The Clubhead “overtaking” speed is governed by the Law of Conservation of Angular Momentum whereby the increased Mass resulting from any extension of the Swing Radius decelerates the Hands and unless they are supported by Power Package Thrust (6-B-1) or Throw Out Action (2-K), can result in great loss of Clubhead Speed. Rely on Clubhead Lag to meter out the necessary support for the Primary Lever Assembly. Strictly speaking, any increase in the product of Mass times Velocity is Acceleration whether or not the Speed is changed. But the formula for Kinetic Energy gives Velocity the greater value. And, actually, the acceptable tolerance in the Ball-to-Clubhead weight ratio is quite small.

6-C-2-C. IMPACT CUSHION The prestressed Clubshaft will resist the added weight of the ball during Impact, instead of cushioning the Impact with an unstressed Clubshaft. See 2-M-1.

Clubhead Lag Pressure normally remains constant regardless of the Velocity it has produced. And both #1 and #3 Pressure Points are the product of *Accumulator* #1.

6-C-2-D. LAG LOSS The very small degree of Clubhead Lag permitted by Clubshaft Flex, makes this procedure especially susceptible to Clubhead Throwaway. And the stiffer the Clubshaft the less margin.

Over-Acceleration is the menace that stalks all Lag and Drag. Here it allows the Hands to reach maximum speed before reaching Impact and so dissipates the Lag. So the length of the Stroke and the amount of Thrust should be adjusted and balanced to produce a “High Thrust-Low Speed” Impact—“heavy” rather than “quick.” Daintiness is dangerous.

6-C-2-E. GRIPS AND LAG This Clubhead Lag Loading should be the first factor learned in the Zone #2 applications of the Grips. It should be introduced with the simplest Single Barrel Stroke Types, and become habitual before any other specifics are approached, to avoid the miseries of Address Position Impact. Allow nothing to alter this habit of proper Loading—even momentarily. Nothing else matters much if this is lost. Also adhere rigidly to 2-F, 7-23 and 9-2.

STEP THREE—POWER STORAGE

THROW AWAY

6-D-0. GENERAL After the selected Pressure Point pressures have been established, the player's prime concern is the storage of the accumulated Power. "Power Storage" sustains the Assembly Point (normally, Top-of-the-Stroke) alignments, conditions, loading etc. of the Hands—their total Feel per 5-0—until triggering (7-20). Until *mastered*—consciously or sub-consciously—Power Golf is impossible. Working on anything else first is wasted time. Hitters and Swingers both have the Power Storage problems listed below but cope with them differently. See 7-19. With "Throwaway" there can be no Rhythm—and vice versa. And an artificial Follow-through. If any.

6-D-1. First, at the Top, the urge to throw the Clubhead from the Wrist, always disregards the Hands. Carefully study 5-0, 7-19, 10-20.

6-D-2. Secondly, surprisingly low, sustained acceleration of the Lever Assemblies produces excessive Hand Speed which irresistably throws the Clubhead into its Release Orbit prematurely (10-19-C).

6-D-3. Thirdly, the Feel that the Uncocking of the Wrists is to align the Clubface for Impact, forces the Left Wrist to bend backwards and produces "Quitting". (3-F-7-B) This is "False Feel Wrist Action". Study 7-8 and 10-5-0.

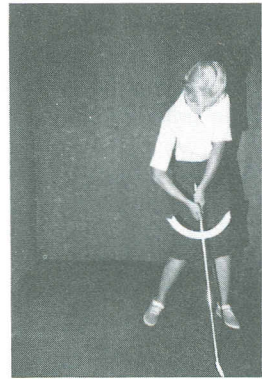
CLUBHEAD THROWAWAY



6-D-1. Wrist Action.



6-D-2. Over Acceleration.



6-D-3. Quitting.

TIMING

6-F-0. GENERAL The term “Timing” as used in Golf means to bring about Impact during the moment of the Clubhead’s maximum Force. With the Rope Handle technique (2-K), this “moment” starts at Release and its “Overtaking Rate” is a very even speed, right up to Impact. Except for Clubhead Lag Pressure it is almost exclusively the generation and utilization of Centrifugal Force. With the Axe Handle technique (2-K), top speed is also established at Release but its “Overtaking Rate” tends to decelerate, making Trigger Delay and Timing much more critical. It is almost exclusively Muscular Force, totally annulling and stifling any intrusion by Centrifugal Force. See “Swingers and Hitters.” So, the Clubhead is *not picking up speed during the Overtaking (Release) Interval*, either when Hitting or Swinging (6-C-2-B, 7-19). And carefully study 2-N and 2-P.

6-F-1. “RIGHT” TIMING Maximum Force is delivered by maximum Thrust (muscular and/or centrifugal) near—but prior to—full extension.

Acceleration ceases when the speed it has produced equals that of the Thrust, and though the Thrust is still present and able to *maintain* Velocity, it loses the flexed, stressed Clubshaft (Hitters) and the wallop of the Centrifugal Force (Swingers).

6-F-2. “OFF”TIMING Timing is a basic element of Zone #2. So Zone #2 components should be reviewed first for Power loss causes. Especially for Steering, Quitting, Scooping, Off Plane or disrupted Rhythm (3-F-7).

But Zone #1 can actually host the cause behind Zone #2 aberrations. Especially the Flat Shoulder Turn. Which, in turn, can be an effect of faulty Hip control. These flaws may be uncovered by checking the selected Stroke Pattern. Or they may simply be Components not yet incorporated into the Stroke, and therefore not known and consequently erratic. Three corrective actions are available—and in the order of acceptability are—incorporation, toleration or compensation. Compensations are like temporary taxes—seldom eliminated and soon forgotten.

HAND ASSIGNMENTS

6-G-0. HAND MOTION All motion is focused on driving the Hands—*NOT THE CLUB*—toward the *BALL*. This may, with habit, seem to become reversed. But this is where and how a player's game "comes apart." And the cure is to return to the original primary concern—the Hands and their Clubhead Lag, Flat Left Wrist and Plane Line (2-0). Educated Hands can compensate for Off Line Hip and Shoulder Motion but only up to a point. Off Plane Clubhead Throwing is even a very prevalent Putting and Chipping fault. It amounts to an unintentional Plane Line shift and causes direction control to become vague. See 2-J-3. So—learn to hit the ball with Hand manipulation rather than with Clubhead manipulation and your game is less likely to keep falling apart (4-D, 5-0).

6-H-0. IMPERATIVES You can't have Educated Hands unless you know what to teach them. The following curriculum is imperative.

- A. Avoid disturbing the Delivery Line (2-J-3).
- B. Avoid "Starting to Hit" when using a Snap Release (6-N-0).
- C. Take all Strokes to the Both Arms Straight Position (8-11).
- D. Avoid a Bent Left Wrist (4-D-1, 6-D).
- E. Associate the following with "Hitting" (10-19-A). See 7-19.
 1. Angled Hinging (7-10)
 2. Simultaneous Release (4-D-0)
 3. Grip Rotation (7-2)
 4. Single Wrist Action (10-18-C-2)
 5. Active Right Elbow (7-20)
 6. Fixed Lag Pressure Point (10-11-0-3)
 7. Radial Acceleration (10-19-A)
 8. Axe handle technique (6-F)
 9. Slow Start Down (6-B-1)
 10. Angle of Approach (2-J-3)
- F. Associate the following with "Swinging" (10-19-C). See 7-19.
 1. Horizontal Hinging (7-10)
 2. Sequenced Release (4-D-0)
 3. Plane Line Rotation (7-2)
 4. Standard Wrist Action (10-18-A)
 5. Active Left Wrist (7-20)
 6. Rotating Lag Pressure Point (10-11-0-3)
 7. Longitudinal Acceleration (10-19-C)
 8. Rope Handle Technique (6-F)
 9. Quick Start Down (10-23-C)
 10. Arc of Approach (2-J-3)

LAG LOADING

HITTING OR SWINGING

10-19-0. GENERAL Lag Loading (Clubhead Feel) is classified according to difference in the procedures for accelerating the Secondary Level Assembly (the Club). That is—Radially or Longitudinally—which are mutually exclusive. That is—both cannot be applied at the same time. All of which, also determines the nature of their execution—that is, Drive the one (10-19-A), Drag the other (10-19-C) or Flick either one (10-19-B) into Release. Study 7-3. This affects the Feel and emphasis of the entire motion. Especially Clubhead Lag Pressure Point participation. All must comply with the Law of the Flail in 2-K.

Drive Loading tends toward minimum Lag (the short (Compact) Stroke)—meaning *contracted* muscles (muscle pull). Drag Loading tends toward maximum Lag (the full (Long) Stroke)—meaning *stretched* muscles (tendon pull). Float Loading can be either one. See 7-20. And study 2-J-3 for Delivery Line procedures.

The above characteristics apply to Strokes of any length. If you cannot handle both Short and Full Shots with the same Lag Loading procedure, you really do not understand either Hitting or Swinging. Master first the Short Shots—where you have time for careful Monitoring per 3-F-6. Two Procedures—presented in 6-B-1-D—will help reduce excessive Arm Motion in the search for the Feel of Lag Pressure. For Hitters—substituting Extensor Action for Acceleration in both directions. For Swingers—the “Bending Right Wrist” and/or “Extensor Action Takeaway” will—more or less, as desired—snap the Clubshaft into its In-Line condition (with the Left Arm) with little or no Arm Motion except what results (intentionally) from Clubhead momentum. Then use a normal Flat Left Wrist Downstroke per Pattern for both procedures—distinctly 12-1 OR 12-2. That is—PUSH or PULL.

Hinge Action does *NOT* differentiate Hitting and Swinging. All are interchangeable—with reservations. Hitters using Horizontal Hinging must consciously resist the tendency of Right Arm Paddlewheel Action toward Angled Hinging. Swingers using Angled Hinging must consciously resist the tendency of Centrifugal Force toward Horizontal Hinging. Both procedures require skill in Clubface manipulation per 7-2.

HITTING

10-19-A. DRIVE LOADING Drive Loading is the “Axe Handle” technique of the “Hitter”—an out-and-out Right Arm Thrust against Clubhead Lag (Angular Inertia) striving to accelerate (radially) a Pre-stressed (Bent) Clubshaft, from a *slow Start Down* through Impact. Per 7-19-1. See 2-N.

All Short Shots can be short, strong Strokes, eliminating all unnecessary motion by using only one Accumulator (until greater distance is needed). But always—PUSH a lagging Clubhead through Impact.

Clubhead Throwaway here is due usually to over-acceleration. Use shorter Strokes and/or lower Thrust. The Stroke can be shortened per 10-15-B or by taking advantage of the fact that the Backstroke will stop when the Right Elbow becomes fully bent.

DRIVE

10-19-A #1. Top of $\frac{3}{4}$ Stroke (Zero Wrist Action).



10-19-A #2. Impact.

HIT OR SWING

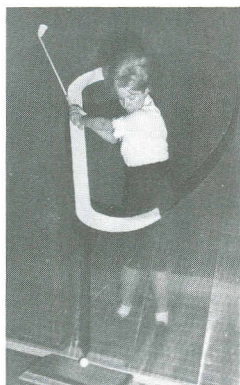
10-19-B. DOWNSTROKE (OR FLOAT) LOADING This procedure delays the Wristcock until the Start Down and completes it as specified by the Stroke Pattern Assembly Point Component. "Float Loading" also describes this procedure—especially the sensation, because the Cocking motion should not be at all sharp, but gentle, or even lazy. With a "Frozen Wrist" procedure (10-3-K) the Downstroke Cocking Action is limited to increasing the Right Elbow Bend only.

Assembly, Loading and Release are usually accomplished simultaneously, then with a Flicking action—automatic or non-automatic—continues as either Drive or Drag Loading, designating it as either 19-B/A or 19-B/C. And use corresponding Short Shot recommendations.

Downstroke Loading (7-19-2) must set up either Radial Acceleration per 10-19-A or Longitudinal Acceleration per 10-19-C for the corresponding Release procedure.

Quitting and/or collapse of the Wrist alignments and structure need special attention here for Clubhead Throwaway prevention.

DOWN STROKE



10-19-B #1. Top of $\frac{3}{4}$ Stroke (Standard Wrist Action).



10-19-B #2. Release.

SWINGING

10-19-C. DRAG LOADING Drag Loading is the Rope Handle Technique of the “Swinger,” an out-and-out PULL, striving to accelerate the Clubshaft lengthwise, from a *quick Start Down* to Release. Start the Club down as though it were being drawn from a quiver like an arrow—feathered end first. Maintain this motion until the Release switches ends. This is possible only if, and for as long as, Inertia can hold the Clubhead inside the arc of the Hands or hold to a Line Delivery Path (2-L). Centrifugal Force will set in when the Clubhead crosses to the outside and it will begin to pull into its own incidental orbit per 2-P and 2-K#5. Then further acceleration can be applied only at Pressure Point #1 to support the Pull on the Clubshaft—especially for Short Shot Power.

Develop an “Instant Acceleration” Hip Action (to the desired Hand-speed per 10-15-B) so that the Throw Out Action (6-B-3) can immediately set up the Rhythm and take over the rest of the Downstroke sequence (6-M-1). See 2-K and 6-F-0. With or without Wristcock, always Drag (or Pull 10-3-D) a swinging Club Down Plane—even with only Centrifugal (Angular) Momentum (2-K) See 10-23-C.

For Clubhead Throwaway prevention, monitor the pull of Centrifugal Force and the Drag of the Lagging Clubhead.

DRAG



10-19-C #1. Top
(Standard Wrist
Action).



10-19-C #2. Automatic
Snap Release
(Standard Wrist Action).

POWER PACKAGE TRANSPORT

7-12. PIVOT The Pivot is the utilization of multiple centers to produce a circular motion for generating Centrifugal Force on an adjustable Plane. Plus the maintenance of balance throughout the weight shifts that accompany the turning and bending necessary for the two Line Delivery Paths. A Pivot is only superficially correct that fails to maintain alignments or allows the player to get “out of position”.

It is the massive vehicle which transports the Power Package Assembly to the launching pad and back-up support for the Hitter’s driving Right Arm (6-B-1). It is the massive rotor, supplying Angular Momentum for the Throw Out power transfer to the Swinger’s orbiting Left Arm (6-B-3).

It is the sequencing and spacing of the Zone #1 Stroke Components. It consists of—as separate and distinct elements—the motions and actions of the Shoulders, Hips, Knees and Feet. The term Pivot is relative in that it can be classified as anything between Full motion and Zero motion and may include all, part or none of the possible Component Motions and actions. It defines their participation (6-M-1) *including the requirements of Plane Angle and Stance Line Variations* (10-12, 10-15-0). It is Zone #1, the first and foundational of the three Zones in Chapter 9. Study 2-0, 9-0 and items 1 and 2 under Sketch 1-L.

As a Stroke Component, the term PIVOT refers only to the degree and direction of its own motion as the framework or pattern within which all the Pivot Components must be arranged and adjusted. The relative participation of the individual Pivot Components is always determined under their own Pattern references. *ALL* motion—Pivot *and* Power Package—moves parallel to the selected Delivery Line. That is, prior to the Downstroke Turn, a Slide parallel with either the Angle of Approach or the Plane Line per 2-J-3.

DUAL AGENT

7-13. SHOULDER TURN The Shoulder Turn Component is controlled by establishing the Planes on which the Right Shoulder can be rotated—which is in turn dictated by the Hip Turn Component. The Shoulder is the fastest and farthest moving component of the Pivot and actually transmits the Pivot motion to the Arms. Study 2-H. So, being part of the Power Package, its motion does not necessarily violate a Zero Pivot requirement.

When the Shoulder moves on the same Downstroke Plane as the Hands it provides its greatest support and its best guidance to the Stroke.

However, it can also turn “Off Plane” and still impart rotation, and it can turn not at all and assign this function to the swinging Left Arm. But the Arms will always seek to move to—and on—the Plane of the Shoulder Turn, requiring compensation by Pressure Point #3 per 2-L#2 and 10-11-0-3. This, with inadequate Backstroke Shoulder Turn and/or inadequate Downstroke Shoulder Lag, will always produce an “Outside-In” Impact, with its stifling of the Clubhead orbit (4-D-0). Keep that Right Shoulder not only “back” but also “down” (On Plane), or you will “run out of Right Arm” before the Hands reach Impact Position—an automatic Throwaway (7-14, 8-6).

Incidentally, with a Zero Accumulator #3 there is theoretically a Left Shoulder Inclined Plane Angle. Therefore, being synonymous terms, it is far better to consider it as Zero Accumulator #3. See 6-B-3-B.

HULA HULA

7-14. HIP TURN The Hip Turn as a Stroke Component is strictly the product of the Knee Bend and the Waist Bend. Not otherwise could the weight be shifted and the Shoulder Turn Axis be tilted without moving the Head. A Hula Hula flexibility allows the Hips and Shoulders to be independent but coordinate and so avoid Right Elbow-and-Hip interference and its “Roundhousing” Throwaway (4-D-0) during the Start Down—the Delivery Line *ROLL PREPARATION* (12-3-22).

Except for its being, in itself, the Weight Shift, the Hip Turn is a motion permitting—rather than causing—the other effects, actions, and motions of the Pivot. Weight Shift is strictly a HIP MOTION. Substituting a Head Motion and/or a Knee Motion will make Swaying inevitable.

The Hip Turn can be used to control or modify Hip Action Variations and prevent Zone #1 (9-1) exaggerations. See 2-N and 7-16.

7-15. HIP ACTION The Hip Action Category is included to separate the “motion” of the Hips from any work they may accomplish.

The work the Hip Action does, is to lead and pull the Shoulders back and down in varying combinations. This has very valuable applications. Forgetting to shift the weight or clear the Right Hip is difficult if the Hips are initiating the Shoulder Turn—in either direction. Study 2-N and 7-3. With Swingers using the Arc of Approach (2-J-3), this actuation may be executed as a “throwing” of the Right Shoulder by the Hips as in 10-19-C.

Hip Action must not be haphazard. It is a Pivot Component that must be carefully timed and sequenced to sustain the continuity and spacing of the Pivot Train (of Components). Omitting the Hip Action unintentionally will disrupt the Feel as well as the continuity of the entire Pivot. See 6-B-3-O regarding Pivot Rhythm.

HIT OR SWING

7-19. LAG LOADING This category recognizes the over-all control by the Clubhead Lag Pressure Point (6-C-2) and that manipulation of its Loading Procedure determines the Physics of both Hitting and Swinging (Preface). Study 6-H-0, 7-3 and 7-20.

The correct Clubhead Lag Pressure “Feel” is a deadweight inertia—exactly like dragging a wet mop through Impact—constant Loading, constant direction. A careful nursing of the Clubhead Feel. Clubhead Lag can be established in three different ways:

- 1. by resisting the Backstroke motion for Drive Loading
- 2. with the Start Down motion for Float Loading
- 3. by “throwing” the Club against the Lag Pressure Point at The Top for Drag Loading

Properly manipulated, Clubhead Inertia can withstand all the Lag Pressure anyone can generate. Including Extensor Action (6-B-1-D).

Incorrect Clubhead Lag Pressure “Feel” does not set up a steady driving pressure but a convulsive, impatient *THROWING* pressure, guaranteeing Clubhead Throwaway. Rolling and/or Uncocking have the assignment of doing any throwing of the Clubhead. Lag Pressure is totally inert. The slightest “pushing away” will produce Clubhead Throwaway. When you find yourself swinging fast whether you want to or not, you are contending with Clubhead Throwaway and it could be induced by improper Clubhead Lag Pressure Point action. And instead of “driving” the Club you find yourself “chasing” it—and never catching up with it. Obviously, if the thrown Clubhead doesn’t pass the Hands until after Impact Fix Position (7-8) is reached it still complies with the Law of the Flail (2-K) but precision Timing and Clubface alignment becomes difficult and, however widely used, is still an essentially perilous deviation. Also see 6-B-O and 7-17 regarding Swing Radius.

The “Right Arm Swing” is simply 10-3-K with loosened Wrists (7-1) and longitudinal acceleration using 7-19-3 above. Only with this “Rope Handle” procedure can the Right Arm be said to “Swing”—and still per 1-L-9 and -10. But with the Axe Handle procedures there must be a straight line piston action to avoid injury to the right elbow ligaments. So, if there is a twinge in the elbow, you are Swinging your Right Arm.

STROKE DIFFERENCES

6-J-0. INTERPRETATION Power Package Delivery is presented so as to apply to the Circle Delivery Path as well as the Straight Line types but it must be interpreted to apply to the selected Stroke Pattern.

6-K-0. PIVOT STROKE DELIVERY In a "Pivot Stroke" the Power Package is held in a fixed relationship with the Body Turn and no independent Arm motion occurs until—or unless—the requirements of the selected Pivot are met. Then Arm Motion, independently or not, continues Delivery per 10-19 until the selected Trigger occurs (10-20).

6-L-0. NON-PIVOT STROKE DELIVERY In a "Non-Pivot Stroke" the Arm motion begins immediately and proceeds toward the Release Point as independently as possible of any incidental body motion. Monitor slow shots for "Clubhead Sag", i.e. dropping Below Plane in either direction. See 2-N. However, for a Zero Pivot Stroke see 10-12-D.

SNARES

3-F-7-0. MACHINE ADJUSTMENT CHECK LIST The Twenty-Four Stroke Components are those things the Machine *should* do. Then there are some indications and symptoms of maladjustment—things it *should not* do. See 4-D and 6-D.

3-F-7-A. STEERING is the Number One malfunction —The Bent Left Wrist and Clubhead Throwaway. Any or all of the following faults during Impact *may* need to be adjusted out—holding:

- 1. the Clubface square to the Target Line
- 2. the Clubhead on Target Line
- 3. the Clubhead on a level or upward path

A very successful anti-steering therapy is an exaggerated “inside-out” Cut Shot per 10-5-E. Study 2-J-3, 2-N and 12-3-39. You always Swing along the Plane Line but not always along the Flight Line. So learn to dismiss the Flight Line. Depend on Clubface alignment for direction control (2-J). In fact, learn to execute *all* Plane Line Variations (10-5) to remove all uncertainty from your Computer (14-0).

3-F-7-B. QUITTING slows or stops the Hands during Release and is almost always a semi-conscious maneuver to change the Down-and-Out Clubhead Path (2-J-2) to an On-Line Path through Impact, on the mistaken assumption that this is the purpose of the “Wrist Roll” (2-G) and/or “Wrist Bend” (6-D-3) and that such Clubhead control is, somehow, automatic Clubface control. That is a distorted interpretation of Sequenced Release (4-D). This results in:

- 1. a Bent Plane Line (Steering 4-D-0)
 - 2. a shortening of the Swing Radius (loss of effective Mass).
- AND depending on Impact Hand Location, results in either:
- 3. a “Down Only” Clubhead Path (deep Divot or “Fat” Hit 1-L-14)
 - 4. an “Up-and-In” Clubhead Path (Topped Shot 2-J-2)

Also study 2-C-3. The inherent power loss causes the player to swing even faster, aggravating the whole situation. Rhythm (2-G) is the solution—Quitting is actually impossible with proper and continuous Rhythm. So are many other faulty moves during the Stroke. During all Strokes—INCLUDING, AND ESPECIALLY, WITH PUTTING.

SUSTAIN THE LAG! That is, Hitting or Swinging, losing Lag Pressure not only produces Quitting but jeopardizes Rhythm and destroys the Basic Motion—among a host of other disruptions (6-D-0).

SNARES

3-F-7-C. BOBBING is raising and/or lowering the Head by faulty movement of the back or knees, and disrupts the Shoulder-to-ball radius.

3-F-7-D. SWAYING is basically incorrect weight shifting due usually to a faulty Pivot. Swaying can be in either or both directions—with the swing or in reverse. It produces abnormal trajectories, erratic timing and a teetering Balance. It is usually an attempt to replace the Pivot in working toward a Turn and a Weight Shift (7-12, 7-14).

3-F-7-E. All these malfunctions are just different ways of disrupting the same geometrical alignment—the downward-and-outward arc of the Clubface. And the farther back toward the right foot that the ball is teed, the farther to the right of the target must be the line of the Clubhead's Down-Plane angle of approach to Impact—that is, the more pronounced must be the Clubface slide across the Line of Flight through Impact (2-J). Also—the greater that absolutely mandatory forward leaning of the Clubshaft through Impact. Off Plane execution can produce Shanked Shots. The correct concept of an “On Plane” procedure is driving the Club—not “a little downward and a little outward”—but “Down Plane”. Down Plane to full extension per 2-C-0 and 2-L#2. Also study 2-F, 2-N and 2-P.

Aiming a Square-Square Plane Line to the right of the target is another effect of these disruptions. Stepping to the opposite side of the ball—or reference line—will prove it isn't faulty eyesight. It is habitually but unwittingly allowing for Pulled Shots and brings Plane Line confusion—a bent Plane Line instead of a straight one. Check that the Grip is Per Hinge Action (2-J-1) and that the Toe of the Club is not raised at Impact.

TO THE TOP

8-4. SECTION 4—START UP This Section starts with the initial Takeaway motion and continues until it settles into its Backstroke path. Catch the Clubhead Path from the corner of the eye to confirm its “Angle of Approach” Path to be identical in both directions (2-J-3).

8-5. SECTION 5—BACKSTROKE This Section starts with the Stroke safely on its way and continues until arrival at the Top (7-19).

8-6. SECTION 6—THE TOP This Section starts when the Backstroke motion of the Hands ends, and continues through a static period of alignment and relationship corrections, until a deliberate aiming of the Lag Pressure Point (6-E). Study 6-D-0. The Hands must have time to define and visualize compliance with the Section 6 requirements in 12-3 before Start Down—the “Start Down Waggle” (3-F-5).



8-4. Start Up.



8-5. Backstroke.



8-6. Top

FROM THE TOP

8-7. SECTION 7—START DOWN Strictly speaking, the next six Sections are all just divisions of the Downstroke for pinpointing interim locations. This Section starts with the initial move toward Impact—the period of Shoulder Acceleration (or its equivalent—2-H) and continues until the motion settles into its Delivery Line Path (7-23).

8-8. SECTION 8—DOWNSTROKE This Section covers the interval between completion of the Start Down, with the Stroke settled into its Delivery Line course, until “Release” point. This is the period of Hand Acceleration.

8-9. SECTION 9—RELEASE This Section starts at the point of Release “Trigger” and continues until Impact—the period of Clubhead Acceleration. See 8-8 above.



8-7. Start Down.



8-8. Down Stroke.



8-9. Release.

FROM IMPACT

8-10. SECTION 10—IMPACT This Section covers only the interval between Impact and Separation—the period of Ball Acceleration.

8-11. SECTION 11—FOLLOW-THROUGH This Section covers the interval between Separation (of Ball and Clubface) and the Both Arms Straight Position as determined by the Shoulder position at Impact. See 2-C-3.

8-12. SECTION 12—FINISH This Section starts at the Both Arms Straight position and continues until the end of the Stroke. If it does not continue, then the Follow-through is also the Finish.



8-10. Impact



8-11. End of
Follow Through.



8-12. Finish.

AXE HANDLE/ROPE HANDLE *Example — Power Shovel vs. Drag Line.*

Mechanical — Thrust against an Axe Handle can produce a centered motion. Against a Rope Handle it cannot.

Golf — The continuous thrust against the Clubshaft moves the Clubhead radially. (The Axe Handle procedure.) The initial Thrust accelerating the Clubshaft longitudinally is the Rope Handle procedure.

AXIS TILT *Example — pouring tea.*

Mechanical — To change direction, the helicopter Pilot alters the plane of the rotating blades by tilting their axis in the new direction.

Golf — To change the plane of the Shoulder Turn without moving the Head, the golfer must tilt the Shoulder Axis by moving the Hips.

BACKSPIN *Example — a flying Frisbee.*

Mechanical — A non-rolling rotation of a moving object.

Golf — The non-rolling rotation of the Golf Ball produced by striking it below the horizontal centerline.

BALANCE *Example — a hula dancer.*

Mechanical — State in which all opposing forces cancel each other out.

Golf — Holding the center of gravity of the body inside The Stance without moving the Head.

BASIC MOTION *Example — driving tacks or spikes.*

Mechanical — An effective, efficient repetitious motion always incorporating the same selected factors for the same purpose with the same results.

Golf — An On Plane Lever Assembly Arc of equal length in both directions, incorporating Components always selected from the same list of options.

CENTRIFUGAL FORCE *Example — whirling weight on a string.*

Mechanical — The resistance of the Inertia in an orbiting object to change in direction.

Golf — The effort of the Swinging Clubhead to pull the Primary Lever Assembly (Left Arm and Club) into a straight line.

CHECKREIN ACTION *Example — a leash.*

Mechanical — A linear restraint limiting the possible distance between two moveable objects.

Golf — Forcing the Right Elbow to bend by pulling in the Right Hand to an arms length from the Left Shoulder at all times.

CLUBHEAD LAG *Example — throwing rocks or feathers.*

Mechanical — The stress occurring at the Point of Thrust by the resistance of Inertia to change.

Golf — The information transmitted through the #3 Pressure Point by the resistance of the Clubhead to change.

CLUBHEAD THROWAWAY *Example — the Sickle.*

Mechanical — Allowing the Swingle of a Flail to pass its In-Line relationship to the Handle.

Golf — Allowing the Clubhead to pass the Hands during Release, and set up a Centrifugal Deceleration condition.

COEFFICIENT OF RESTITUTION *Example — splashing water.*

Mechanical — The force of the return flow of a material after deformation.

Golf — The speed with which the Ball will separate from the Clubface after Impact in relation to Impact Clubhead speed.

CONCENTRATION *Example — The punch press.*

Mechanical — The application of Force to a relatively small area.

Golf — Keeping the attention focused alertly on alignments and relationships by monitoring the messages from the #3 pressure Point.

ENDLESS BELT EFFECT *Example — moving targets at a shooting gallery.*

Mechanical — The change from linear motion between pulleys to angular motion during the pulley encounter.

Golf — The increase in Clubhead speed of a Club mounted vertical to an endless belt, when passing the pulleys, that is in reverse proportion to the diameter of the pulleys.

FLAT AND VERTICAL FLAT LEFT WRIST *Example — Left hand Karate Chop.*

Mechanical — The Paddlewheel blade relationships as vertical to its axis of rotation and vertical to its plane of rotation.

Golf — Positioning the Left Wrist to be vertical to its Left Shoulder Axis and to its Associated Plane during Impact.

FLYING WEDGES *Example — multiple sails on sail boats.*

Mechanical — Push-Pull rams on hydraulic excavators mounted 98 degrees to each other to position and hold the main beam.

Golf — Maintaining the constant simultaneous In-Line relationship of the Clubshaft with the left Arm and the Right Forearm positioned ninety degrees to each others along the Line of the Left Wristcock and the line of the Right Wrist Bend.

GYROSCOPIC ACTION *Example — whirling weight on a string.*

Mechanical — A spinning flywheel resists any effort to change its plane of rotation.

Golf — A golfclub swinging either On Plane or Off Plane, resists any attempt to change its Plane.

HINGE ACTION *Example — all types of swinging doors.*

Mechanical — The blade of a hinge is always vertical to its Plane of Rotation.

Golf — Holding the Flat Left Wrist vertical to one of the Three Basic Planes will impart that same *motion* to the Clubface.

HITTING AND SWINGING *Example — the catapult vs. the sling.*

Mechanical — Continuous thrust producing steady acceleration of a hinged beam is a Hitting action. A rotating arm pulling steadily on a weighted line is a swinging action.

Golf — Accelerating the Club radially with Right Arm Thrust is Hitting. Accelerating the Club longitudinally, with either Arm, is Swinging.

IMPACT *Example — bowling ball and “tenpins”.*

Mechanical — Objects meeting in collision.

Golf — The meeting of Ball and Club.

IMPACT INTERVAL *Example — from billiards to bean bags.*

Mechanical — The period during which colliding objects are in contact.

Golf — The period between Impact and Separation of the Ball and Clubface.

IMPACT POINT *Example — darts on a dart board.*

Mechanical — The *point* of first contact in a collision.

Golf — The point on the Ball first contacted by the Clubface.

INCLINED PLANE *Example — a pitched roof.*

Mechanical — A flat surface of any extent positioned somewhere between horizontal and vertical.

Golf — The through-the-waist “Plane of Rotation” of the Clubshaft as established during Address Routine.

LAW *Example — burning fuel (piston engine vs. jet engine).*

Mechanical — The Modus Operandi of a principle.

Golf — The precision synchronization of interacting forces to control Ball behavior.

LEVER ASSEMBLIES *Example — nutcracker/vise grip pliers.*

Mechanical — Any arrangement of two or more levers.

Golf — An adjustable Radius for generating Kinetic Energy during The Down-stroke.

LINE OF COMPRESSION *Example — bullet hole through a baseball.*

Mechanical — The line through the center of that area from which material flows when displaced by a compressing force.

Golf — The direction of the Impact Force, as related to the various centerlines, for determining Ball Behavior.

MOMENTUM TRANSFER *Example — the hammer thrower.*

Mechanical — An appendage acquiring motion by reason of being attached to a large, central rotating body.

Golf — The rotating Body (Pivot) accelerating and sustaining the Lever Assembly motion by the Throw-Out Action of Centrifugal Force and reducing the effect of Conservation of Angular Momentum in proportion to the difference in Club and Body Mass.

PACE *Example — walking vs. running.*

Mechanical — The miles per hour (MPH) of a moving body

Golf — The surface speed of the orbiting Clubhead as differentiated from Rhythm.

PIVOT *Example — revolving door.*

Mechanical — That motion of a body moving around a center point.

Golf — A multiple universal-joint assembly between the Stationary Head and the Stationary Feet holding the Clubshaft "On Plane" by positioning and adjusting the Lever Assembly, through the #3 Accumulator, as directed by the Right Forearm.

PIVOT CENTER *Example — tetherball pole.*

Mechanical — The point on which an assembly is suspended or erected to stabilize and limit that assembly's possible travel — the Hinge Pin.

Golf — Some point on the body kept stationary throughout the Stroke, to stabilize the motion.

PLANE LINE *Example — eavetrough.*

Mechanical — A line inscribed on a flat surface to be considered its Base Line and the line along which that Plane is to be rotated when changing its angle.

Golf — A line inscribed on the surface of the Inclined Plane passing through the Ball location to serve as its Base Line and its center of rotation when changing its angle.

POTENTIAL AND KINETIC ENERGY *Example — the drop-hammer.*

Mechanical — Potential Energy is the energy of position. Kinetic Energy is the Energy of motion.

Golf — Loaded Accumulators are Potential Energy — the Orbiting Clubhead is Kinetic Energy.

POWER ACCUMULATION *Example — stretching a slingshot.*

Mechanical — The process of assuming or acquiring a condition of Potential Energy.

Golf — The process of Loading Power Accumulators during their Out-of-Line Configuration.

RESULTANT FORCE *Example* — *skipping rocks over water.*

Mechanical — The single-direction Force equal to the multi-directional Forces being applied to an object but with less than the sum of the Forces.

Golf — Regardless of the Vector Directions of unaligned Impact forces, the Ball moves in one direction with a Force less than the sum of the Forces.

RHYTHM *Example* — *crankshaft and connecting rods.*

Mechanical — Holding all components of a rotating motion to the same R.P.M.

Golf — Holding both Lever Assemblies to the same basic R.P.M. throughout the Stroke while overtaking all other Components at a steady, even rate.

RIGHT FOREARM *Example* — *drawing a line between 2 points.*

Mechanical — Any means by which a track can be provided to guide a moving object.

Golf — The Right Forearm “Tracing” the Clubhead Delivery Line with the #3 Pressure Point.

STATIONARY HEAD *Example* — *a spinning skater.*

Mechanical — Same as Pivot Center.

Golf — Crossing the Head — rather than Between-the-Shoulders as the Pivot Center.

STEERING *Example* — *guiding a rolling hoop.*

Mechanical — Forcing a Hinge Pin to give a straight line motion to its attachments.

Golf — Holding the Clubhead Path and the Clubface, square with the Target during Release and/or Impact.

STROKE PATTERN *Example* — *a recipe.*

Mechanical — Selection of possible materials or sequence for executing a procedure.

Golf — The list of Stroke component Actions which can be properly executed in more than one way.

SWEET SPOT *Example* — *a plumb bob.*

Mechanical — The longitudinal Center of Gravity of a length of material.

Golf — That spot on the Clubface through which a plumb-bob line would pass if suspended from the Grip area.

THREE BASIC PLANES *Example* — *floors, walls and pitched roofs.*

Mechanical — Flat surfaces positioned horizontally, vertically or somewhere in between.

Golf — The Three possible *Planes of Motion* which the Flat Left Wrist must simulate to give the Clubface a preselected *Motion* through Impact.

THROW-OUT ACTION *Example* — *leaning through a turn.*

Mechanical — The action of Centrifugal Force on a Rotating Body.

Golf — The Law of the Flail producing or reducing Clubhead Power according to its In-Line relationship with the Left Arm.

WRISTCOCK *Example* — *fly casting fisherman.*

Mechanical — The Flail producing Swingle velocity through a Hinge arrangement with the Handle.

Golf — Shortening and lengthening the Primary Lever Assembly to reduce Clubhead Angular Inertia and to produce a rapid *rate* of increase of the Clubhead Surface Speed in MPH but not in RPM.

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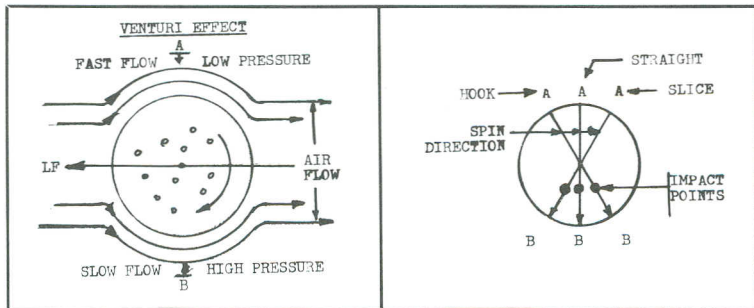
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STATEMENT OF PRINCIPLE

HEIGHT AND DISTANCE

2-B. TRAJECTORY CONTROL Clubface loft (2-C-1) and Hinge Action (2-D) determine altitude and backspin and are the basic elements of Ball Control. Also study 9-3. The sketches herein show Force Vectors as directional only, in order to depict how their interplay controls Backspin and Ball behavior.

A speeding, spinning ball is subject to the Venturi Effect, meaning that an increase in the velocity of a flow of air decreases its *cross-sectional* pressure. The air passing over (A) that portion of the ball that is turning *with* the passing air will move faster than the air passing over (B) that portion of the ball that is turning *against* the passing air. Therefore the air at "A" will exert less pressure than the air at "B" so the ball will be pushed in the direction of "A." If portion "A" is *above* the center, the pressure from "B" will produce a vertical lift. If "A" leans to either side of the vertical, the pressure at "B" will produce a sidewise push toward "A." If "A" is toward the player's left it will produce a hook—to his right, a slice. But the action will be definite—not wavering. Predictable and controllable. The more airspeed, the more effect for any given amount of spin. Without backspin, the ball will wobble along erratically. And the dimpled cover greatly magnifies this wobble control. So it follows, that a Ball with "Overspin" has no "Lift"—the "Duck Hook." A truly well hit Ball (Three Dimensional Impact 2-C-0) from any Club will have a higher trajectory than otherwise, simply because the increased velocity and Backspin will lengthen the upward portion of the flight. In addition, when there is Clubface "Layback" during Impact, the additional height will be even more noticeable as the Impact Interval lengthens. And ALWAYS—the more Compression Leakage, the more faulty the Angle of Separation (2-D-0)—that is, lower trajectory and less distance.



2-B. Trajectory Control.
The Venturi Effect.

DIRECTIONAL VECTORS

2-D-0. DIRECTIONAL FACTORS Another need for a “perfect circle” motion is for directional control. If the *Clubface* is maintaining a constant relationship to the radius of its rotation—whether the face is open, closed or square—then the direction imparted at any one point of the arc will always be the same for “centered” (Sweet Spot) Impact (2-F).

The Angular Motion in a Golf Stroke is compounded by its dual Centers. One Center is for the Clubhead as a whole, and the other Center is for the Clubface position. (See 10-10). Deviations in Horizontal Hinge Action during Impact can produce considerable variation in direction but little change in trajectory. Deviations in Vertical Hinge Action during Impact can produce great variation in trajectory but little change in direction. Angled Hinge Action on the flatter Planes (10-6, 10-7) approaches the Horizontal Hinge characteristics and as the Plane steepens it moves toward Vertical Hinge characteristics. Study 2-G.

The direction of the ball will always be practically at right angles to the Clubface and square to the leading edge of the Clubface at separation, unless there is enough time and speed for the Venturi Effect to alter it when scattered vectors have introduced a non-vertical spin. That is—the *Flight Path* (7-2) will bend away from the *Flight Line* (2-E). Also study 2-B in this connection. Tilting the Leading Edge changes the Clubface alignment. Up—to the left. Down—to the right. Merely deviating from the Address Plane Angle will do this by tilting the Clubshaft. And from Driver to Putter, directional deviation can be diagnostic:

- 1. Shoulder Turn “Closes” the Clubface—the “Pull”.
- 2. Not extending the Right Arm “Opens” the Clubface—the “Push”.
- 3. Bending the Left Wrist makes Clubface alignment erratic.

Also study 2-F, 2-G and 2-J.

The direction of the ball will be the resultant of the Vectors of the forces acting on the ball, unless all the forces can be focused on one line (2-C-1 #3). Then direction control would be stabilized and, in addition, the ball would be propelled by the sum of the forces acting on it, instead of the much smaller Resultant Force of scattered Vectors. The Vector of the spin-producing force cannot be brought into the alignment or there would be a loss of altitude control as well as Spin control. But the Spin can be produced on the plane of the actual Line of Flight and thus exert no interference with the alignment of the forces. Study text and sketches in 2-B and 2-C.

THE GRIP

7-2. GRIP TYPES Each Grip Type employs a different Hand-to-Basic-Plane relationship (2-G) and can be applied to any Basic Grip—by Hitters only—Active Lag Pressure (6-C-2-0). Because, for Impact Clubface alignment control, Hitters should rotate their Grip but not their Plane Line at Address (3-F-5, 7-8), while Swingers should rotate their Plane Line but not their Grip (7-1, 6-B-3-0). For Swingers the results of Ball Location changes on any one Plane Line are the opposite of those for Hitters. Unless, of course, there is Hand manipulation—intentional or unintentional. Then *both* procedures will have Hitting alignments and Ball response. And be Ball-related rather than Body-related.

The Hand relationship is invariably established at Impact Fix (7-8) with

- 1. the Left Arm and the Clubshaft in-line (4-D, 6-B-3-0-1)
- 2. the Right Forearm “On Plane” 7-3, 6-B-3-0-1)
- 3. the back of the Flat Left Wrist *and* the Lag Pressure Point (6-C-2-0) BOTH facing down the Angle of Approach (2-J-3). Otherwise, per 7-3, both must face down the Right Forearm Impact Fix Alignment (Alternate Target Line) regardless of the true Angle of Approach (2-J-3, 7-5).
- 4. move the Stance Line and adjust the Knee Bend, the Waist Bend and the #3 Accumulator Angle (per 6-B-3-B) until the Left Wrist is Flat, Level and Vertical (4-0, 7-8) with the Clubface “Soled” and aligned per 2-J-1 and 7-6. The effect of Opening and Closing the Plane Line is discussed in 2-J-3-B and 6-E-2-2. Study 6-C-2-A and 10-23-0.

For the “True” Hitter, moving the Ball back (Hook alignment) or forward (Slice alignment)—always with the Clubface aligned to the Target Line per 2-J-1—gives straightaway initial direction (2-B). Opening the Clubface (Slice Grip) or Closing the Clubface (Hook Grip) at your normal Impact Fix, produces Pushed Slices and Pulled Hooks and so require a compensating Target Line adjustment to make it square to the changed Clubface alignment.

For the “True” Swinger, “Opening” the Plane Line (10-5-D) until it is square to the Clubface alignment at the new “Aft” location, will produce a “Fade”. With the Ball moved Forward, “Closing” the Plane Line (10-5-E) square to the Clubface alignment at the new location, will produce a “Draw”. The Curve of their paths, after the straightaway initial direction, will be proportional to the divergence of the Plane and Target Lines. Herein. “Path” terms (Ball Path etc.) refer to total Ball behavior, *whether or not* it remains straightaway. “Line” terms (“Target Line” etc.) refer to the straightaway direction of Aim.

FOREWORD

It was in 1969 that I first met Homer Kelley. After 28 years of work, he had just completed *The Golfing Machine* and had come to the Pro Shop to interest me in teaching the system of G.O.L.F. We talked for 6 hours. He showed me how he had traced the golf stroke pattern CHAPTER 12, to 24 basic components CHAPTER 7, and that each component had from 3 to 15 variations CHAPTER 10, summary CHAPTER 11, and that some variations were not interchangeable CHAPTER 13. I knew right then that *The Golfing Machine* was the book my students and I were waiting for. Homer went on to explain the 12 sections of every stroke CHAPTER 8, and I could see at once how duffers and hackers were out of sequence, trying to release the power package before it had been assembled, loaded and delivered. I have come to appreciate CHAPTER 9 as all my lessons start basically from one of these 3 zones depending on the ability of the student; Body Control, Club Control, then Ball Control. As Homer explained CHAPTER 6, the difference between Power Source and Power Application, the words “accumulator,” “plane,” “lever assembly,” “pressure points,” “clubhead drag,” and “clubhead lag” have become good friends over the years. Chapters 4 and 5—Educated Hands—were fun to learn, and it is now my conviction that anyone with “clubhead throwaway” will never improve until he gets these chapters into his coconut. I remember telling Homer I could “hit it” with almost any kind of grip—“that’s right, you always had lag,” he said. Chapters one, two and three in all of the revised editions have been polished and refined since the first edition. The 21 facts in the third edition, 1-L, have been so useful for precision golf and I will still treasure Homer’s original meanings of the generation of angular momentum in 2-K. CHAPTER 2 (Golf as a Science) takes some study but is worth the effort as emperical knowledge is worse than useless. Homer explains how he used CHAPTER 3 to translate mechanics into feel, and these first 3 chapters give both the instructor and student the background of good golfing.

After our six hour visit, I arranged for Homer to put on a series of evening classes at his studio for a few fellow professionals so that I could get their thoughts. I asked Homer to help me with my classes at the Club to get student feedback and to audit my teaching. In 1973 we were invited to present the book to the National PGA Education Committee. I’ll never forget Homer’s talk on what the book would do for golfdom. I spoke on the practical application of teaching the Star System of G.O.L.F. However, even though I knew from my students progress that *The Golfing Machine* was the truth in teaching, it seemed that my assignment was to

FOREWORD

continue teaching, and Homer polishing, knowing it would be a Bobby Clampett who would put it into his computer CHAPTER 14 and demonstrate The Golfing Machine to the “Golf World.”

One of the Nation’s most highly regarded teachers told me in 1973 that I was “ten years ahead of us.” I replied I had only been studying and teaching The Golfing Machine for 5 years; it’s been 10 years now, and my intention has always been to share it. As the book says, mandatory positions mean nothing without principle, and it is obedience to principle that gives one power and accuracy.

Thanks, Homer for explaining G.O.L.F. and in doing so, making the job possible to inform the student who must absorb and apply. So—take one component at a time using the sequence in CHAPTER 9 plus the index, and in 24 hours, days, weeks, months or years you will be able to “sustain the line of compression” . . . the lag . . . impact.

Ben Doyle, PGA Teaching Professional
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of The Golfing Machine

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