POWER and effort are not the same thing. Probably all golfers should have this fact tattooed on their left wrists.

Power comes from the proper use of the laws of science, aided often by muscles. Scientifically, as all who remember their schooldays know, it is the product of Mass times Velocity.

Most people equate Mass with the weight of the clubhead. This is something that cannot be changed. For this reason they consider clubhead speed as the only variable. But such is not the case.

Homer Kelley used to say that Mass is actually easier to vary than Velocity. This heretical view was shared by the late Mindy Blake who said: "It's Pressure that counts". (I put the two of them in touch, sending Homer a copy of Mindy's "Golf Swing of the Future" and Mindy a copy of Homer's "Machine"). Interestingly, Dr David Foster who wrote "Thinking Golf" and invented the computerised swing-analysser, came to the conclusion from his experiments that there are two distinct types of golfer, the Speed Golfer and the Power Golfer. (So I brought him and Mindy together too).

Computer tests show that clubhead speed is very difficult to alter successfully, endorsing what Homer Kelley had concluded from sheer reasoning. A golfer depending on clubhead speed who "changes gear" runs into problems of deceleration.

Similarly, the power or pressure golfer who tries to speed up may be troubled by over-acceleration.

Here we may find a source of inconsistency among golfers who have never heard of these now-proven facts. And right here is an invaluable tip:

Discover or decide which type of golfer you are, in Dr Foster's words a Power Golfer or a Speed Golfer?

Discovery will be aided by some sessions with a Mitsubishi Swing Trainer, if you or your club have access to one. Otherwise the decision depends on your musculature and perhaps your temperament.

After that it is a matter of grasping the basic scientific facts.

1. Mass is not just weight. It is better defined as weight-in-motion centrally applied.

2. It is Effective Mass we are interested in. We all know that a glancing blow from out-to-in will rob a golf shot of distance. So will a hit with the toe or heel of the clubhead. And also a hit with the clubface "laid back".

Therefore to make Mass effective we need —

* A centred strike.
* A square clubface at Separation.
(that is, when the ball leaves the clubface).
* An in-to-out Delivery line.
* A firm, flat left wrist at Impact (which ensures the clubface will not be "laid back").

To vary Mass the golfer can then vary the Acceleration Rate and/or the Swing Radius. The radius is greatest when there is a full shoulder turn and when the left arm is straight on the backswing and the right arm is straight on the throughswing.

To vary Clubhead Speed the golfer may vary Hand Speed, the Release of the wristcock and/or the length of the stroke. Length is maximised by swinging to a very full finish.

Speed is closely associated with the Flail Effect - "swinging the clubhead" - and with hand and wrist action.
Power golfers depend most on THRUST, which Blake translated as Pressure-on-the-ball. This comes mainly from resistance from the right leg and Kelley's "Accumulator Number One", which is the extensor action of the right arm.

Maximum thrust is obtained by causing the bent right elbow to pass the right hip or even the line-of-sight to the ball before releasing it. This helps achieve full extension of the right arm in the follow-through.

It was the great Ben Hogan who first noticed the major technical difference between early American and British Ryder Cup golfers. He asked the doyen of golf writers, Henry Longhurst, why British golfers did not extend their right arms fully after hitting the ball. Unlike the Americans, they folded both arms quickly instead. Henry had no answer and there the conversation ended.

The fact is that almost all British golfers of those days tried to be Speed Golfers, whether this was truly best for them or not. They were "hands players". None the worse for that, of course, but usually less powerful. And it is probably the case, as Mindy Blake always insisted, that many would have been even more successful if they had realised they were, at their best, Power Golfers.

Clubhead speed is still an essential factor on all full shots, of course. And many golfers would do best to rely on it. Particularly, this is true for older golfers.

It is my belief - and was, I think, Homer Kelley's too - that fast hands alone are mockers. It is better to generate clubhead speed from the Flail Effect.

This has been described by Henry Cotton as "a whipping action". It may most easily be obtained by pulling down with the left forearm at the start of the downswing and then "hitting with the right hand" during the impact interval.

Most handicap golfers when trying to lengthen the stroke - which is another important element in Clubhead Speed - lengthen their backswing. This is wrong. They should lengthen their follow-through.

A short backswing (with a full shoulder turn) and a long follow-through is the true secret of Old Man's Speed.

Kelley wrote: "In 'The Golfing Machine' the finish ranks high above impact as a critical point in the golf swing".

If we think of the word "end" as meaning "purpose" the truth is that the end of the swing is the finish. Impact should be incidental.

Clubhead speed and Pressure are present in some measure in all strokes, naturally enough. But some golfers need to stress the one and some the other.

In "The Golfing Machine" Homer Kelley has shown us how to do either. Or, indeed, both.

To sum up:
* If it is THRUST you are after, resist the backswing with the right leg. Swing the right elbow well across the body and extend the right arm fully in the follow-through.
* If it is SPEED, "whip" the ball and aim for a full finish.

And in either case hit the ball with the centre of the clubface along the right line and see that the left wrist is firm and flat all the way through Impact.

Lee Trevino demonstrates right arm extension through the ball.
Seve Ballesteros illustrates a full shoulder turn even with a short iron.
Nick Faldo maximises the length he hits the ball by swinging to a full finish.