Steve Michalik, present Mr. America, shows his superb back development in this photo by Falcon.

Some of the Problems — *And A Few Answers*

by Art Jones

Before you can logically begin a search for an answer, you must first understand the problem. But even if you are merely seeking practical results, with little or no interest in just why such results are produced — it still remains necessary to at least be aware of the cause and effect relationships involved.

Yet for the average person, too much theory is sometimes worse than none — since it frequently produces more confusion than practical knowledge; but you must, at least, know what to do — and what results to expect.

The average bodybuilder, for example, is not even aware that any sort of relationship exists between the biceps muscle of the upper arm and the thumb at the end of the same arm; and yet, the function of the biceps dictates both the location and the function of the thumb. Without a thumb, the prime function of the biceps would be almost useless — or, if the thumb was located at the "bottom" of the hand instead of the "top," then the function of the biceps would again be almost useless.

The thumb serves as an anchor for the hand during twisting movements; when the right hand is twisted in a clockwise fashion, the grip of the fingers would be torn loose if the hand was not anchored by the thumb. The "bottom" of the hand requires no anchor, since the direction of force application presses that part of the hand firmly against the object being gripped — thus two thumbs, one at the "top" and another at the "bottom" of the hand, are not required.

For twisting in an opposite direction, another arm is provided — a "mirror image" arm instead of a duplicate. Two right arms (instead of a right and a left) would merely provide unrequired duplication — and make it impossible to exert much in the way of twisting force in a counterclockwise direction.

Theory? Of no practical value? Useless knowledge? Subject to doubt? Certainly it is theory — undeniable theory; but it just as certainly is of great practical value — and it is NOT subject to doubt. Whether any knowledge is useless or not depends upon the circumstances — an unrelated bit of knowledge frequently will be of no value, but a whole chain of related facts can be rendered useless because of the lack of a single item of required knowledge.

Why do I use this example? And just where is this discussion leading?

I selected this example because it relates to a muscle that attracts the attention of most trainees, but a muscle that few trainees really understand — and, hopefully, this discussion is leading in the direction of a clear understanding of at least one of the many cause-effect relationships involved in exercise.

If you do understand the relationship between the biceps and the thumb, then it at least becomes possible to apply that knowledge to your training — but without such an understanding, your biceps training will probably be hit or miss at best.

"But", you may be tempted to ask, "lots of trainees have managed to produce outstanding degrees of development of the biceps muscles — and they have done so with little or no understanding of the real facts?"

Perfectly true; but how long did it take them? And I would also like to mention that for every single trainee who did manage to produce outstanding biceps, there are at least a thousand trainees with poor biceps.

The primary function of the biceps of the right arm is twisting the hand in a clockwise direction — and for proper exercise, the biceps must be worked against "twisting resistance." Regardless of how much exercise you provide for the bending function of the biceps, you are NOT working the biceps completely — you are working only part of the muscle, and the least important part at that.

But even if you do provide exercise only for the bending function, the biceps will grow — it will grow as a result of "indirect effect," the same result that is produced when your arms grow as a result of exercise for your legs — BUT IT WILL GROW SLOWLY, and it will not grow as much as it would if it was exposed to proper exercise.

So you can produce results even if you train wrong — but you can produce much better results if you train right. And please note — I said that you can produce "results" by training wrong; which results will frequently be LOSSES instead of gains.

I used to think that most trainees were wasting at least 90 per cent of their training efforts — but I now realize that the actual situation is even worse than I previously suspected. The simple truth of the matter is that almost all of the training effort being expended by millions of trainees produces exactly the opposite result from

that desired. Most training actually PREVENTS GROWTH, rather than promoting it.

Which is not meant to imply that you should not train at all. You certainly should train — but you should train right, and you should not train too much. Training "right" isn't easy — but it is very easy to train "too much."

There is a natural inclination to equate "more" with "better" — but in the field of exercise, that is a terrible mistake.

Every time you hit a nail with a hammer you should drive it deeper into the wood — and every time you train you should stimulate growth. But it is easily possible to hit a nail wrong, and thus bend it — making it almost impossible to ever drive it properly. And it is even easier to train wrong — making growth impossible, or producing positive results only at a snail's pace.

There is a definite limit to the muscular size and strength that you can produce — and this limit is determined entirely by heredity. The limits for some people are much lower than the limits for some other people — but it is my opinion that nobody has yet reached the limits of their personal, individual potential. Which is meant to clearly state that even such outstanding individuals as Sergio Oliva and Arnold Schwarzenegger have not (in my opinion) reached the limits of their muscular size.

But reaching such limits of individual potential does not involve training more — on the contrary, most trainees fail at a point far below their actual potential as a result of too much training. The simple truth of the matter is that . . . "the larger you get, the less you should train."

The most productive barbell exercises are the basic movements — squats, standing presses, deadlifts, pullovers, etc. But these are also the HARDEST exercises — and for that very reason, many trainees avoid them like the plague. Substituting endless sets of lighter, easier exercises — and then wondering why their progress is slow or nonexistent.

If you are using the right exercises, and if you are training properly, then you don't need to train very much in order to produce good results. More than that — if you are training as hard as you should be, then you literally can't stand very much training; and the stronger you get, the less training you can stand.

If you have been training for several years, and if you have recently encountered a period of little or no progress — then do yourself a favor and try the following program for a very brief period. First, stop training entirely for a full week — give your system a chance to recover from its constantly overtrained condition. Then start back with three weekly workouts of only twelve sets each — that's right, not twelve sets of each exercise, but a total of only twelve sets in each workout. Two sets of each of the following basic movements — squats, standing presses, regular-grip chins, bench presses, standing barbell curls and parallel dips. Perform the exercises in that order — use an amount of weight that will permit approximately eight repetitions in good form, and increase the weight as soon as you can perform ten or more repetitions without cheating — concentrate on the performance of full-range movements.

Three weeks on such a program should produce growth at a rate that will probably shock you — and when your rate of growth slows down again, then reduce your program to a schedule of only two such weekly workouts.

Nowhere near enough? Don't knock it until you've tried it.

Not hard enough? It should be — and it will be if you use as much weight as you can, and if you perform all of the exercises in perfect form and carry each set to a point of failure.

But be careful to REDUCE your intake of food while on such a program — if not, you may add fatty tissue as well as muscular mass. If you have been training a lot more than the amount listed above, then you have probably been eating far more than you will need on this schedule — so reduce the amount of food accordingly.

The theory behind the above training program is very simple — such basic movements will stimulate growth in all of the major muscular structures of the body, and the brief amount of training will not exhaust your system to the point that growth is impossible.

The development of the Nautilus System of training was based upon a clear awareness of the fact that best results are always produced by practicing a few basic but HARD exercises. We were not looking for an easy method of training — and I tell you very clearly that no such method will ever be found; not, at least, in connection with worthwhile results. Instead, we were looking for the hardest exercises that could be developed — and we found them.

So right from the start we realized that the barbell was obviously not the best tool for our purposes — because a barbell is designed to make it "easy" to lift weights. "Demonstrating strength" is one thing — but "building strength" is a different matter; a barbell is probably the ideal tool for demonstrating strength, simply because a barbell makes it easy to lift a lot of weight — but a barbell certainly is NOT the best tool for building strength, for the same reason.

Obviously, then, we first had to

(Continued on page 54)

You have heard a great deal about Louis Ferrigno. Here is his photo. He is the fellow mentioned in Arthur Jones' Bulletin and a protege of Dan Lurie. He is 20 years of age and weighs 265 at 6'5", with a 21½ inch arm cold, 56 expanded chest, 33 waist, 29 thigh and 19 calf. We have more fine photos of this remarkable physique by photographer Michael Sullivan.