

Nautilus — FOR WOMEN

**N O W . . . MADE POSSIBLE BY THE REVOLUTIONARY PRINCIPLES
INCORPORATED ONLY IN NAUTILUS EQUIPMENT FOR MEN,
TRAINING MACHINES DESIGNED FOR WOMEN . . .**

Quickly remove that undesirable "dimpled" look from the upper thighs and buttocks — WITHOUT WORKING THE LEGS, without heavy exercise, without the danger of building the major muscles of the thighs in largely unsuccessful attempts to reach the exact area of the body that actually requires work. DIRECT WORK for the buttocks ONLY, direct exercise that will quickly restore lost muscle tone, tighten sagging flesh, markedly improve the appearance in a matter of days.

In the past, using conventional exercises (or exercise machines) it was literally IMPOSSIBLE to work the muscles of the upper thighs and buttocks without also heavily involving the major muscles of the thighs — as a result, only very heavy exercise could do much if anything for the buttocks area, and at least some unavoidable development was always produced in the thighs. Some women need to enlarge the muscles of the thighs — but most women don't, and it is for this vast majority of women that need direct exercise for the buttocks area only that this machine was designed.

NAUTILUS GLUTE-CURL (Buttocks) MACHINES — fully selectorized, easily adjustable for women of any size, deluxe models only, featuring the World's Highest standard of quality construction. F.O.B. DeLand, Florida, \$680. (uncrated).

ALSO . . . DIRECT EXERCISE for the muscles of the chest, WITHOUT exercise for the muscles of the arms. These machines are NOT merely another type of "Butterfly" machine — instead, they are a totally new and revolutionary approach to the problem of building the muscles of the chest without requiring exercise by the arms.

Full range, double direct, omni-directional, automatically variable, balanced PROPER resistance for the major muscular structures of the chest — built FOR WOMEN.

NAUTILUS CHEST MACHINE FOR WOMEN — fully selectorized, deluxe models only, beautiful machines that will add to the attractiveness of any spa or gym, comfortable in use, sturdy enough to last almost literally forever. \$715. (uncrated) F.O.B. DeLand, Florida.

Properly used — and that means used very briefly, two or three times weekly — the above two machines will produce maximum-possible results in a very short period of time; the buttocks machines will produce obvious results from the very first workout in many cases — and within not more than a week in almost all cases. Within the near future, these two machines will become the basic machines for women in all major spas — you can be the first to have them in your area.

Add \$55. for crating charges for machines that must be shipped; freight collect in all cases; shipment within two weeks of the receipt of orders in most cases; Florida residents add 4 per cent sales tax.

ARTHUR JONES PRODUCTIONS
P.O. Box 1783, DeLand, Florida 32720
Phone area code 904 228-2884

IMPORTANT NOTICE . . .

To the owners of NAUTILUS SYSTEM EQUIPMENT . . .

Nautilus System training equipment is NOT perfect — like all other products of man, Nautilus Machines sometimes fall short of perfection. And it is highly unlikely that they ever will be literally perfect — regardless of continuing efforts on our part to make them perfect. But all Nautilus equipment is, has been in the past, and will be in the future AS CLOSE TO BEING PERFECT AS WE CAN MAKE IT.

OF EVEN MORE IMPORTANCE . . .

Many people claim to be responsible — but not all of them live up to their promises. WE ARE RESPONSIBLE — and we will live up to our promises. During the last ten months we have recalled and replaced (at our own expense, at no cost to the customers involved) more than thirty Nautilus Machines. One of these machines was replaced because of a problem called to our attention by the customer — but all of the other machines that we replaced were giving good service, the customers were more than satisfied with them; BUT WE WERE NOT SATISFIED WITH THEM — so we replaced them, with brand-new machines, freight prepaid by us.

Hundreds of people have purchased Nautilus Machines "sight unseen" — having read about them in articles or advertisements, they bought the machines in good faith, believing that they would get the best machines we can make. And in almost all cases they did — but in a few cases they did NOT: like everybody else, we make mistakes — but UNLIKE some other people, we do not expect our customers to suffer from our mistakes.

The "functions" of Nautilus Machines (their ability to build muscular size and strength) are as close to being perfect as it is possible for us to build them in line with unavoidable laws of basic physics; we have made NO mistakes insofar as "function" is concerned — the machines do exactly what they are supposed to do. If a different design would improve the function, then we would use a different design. But we have made a few mechanical errors — mistakes that are our responsibility, mistakes that should not cost our customers anything, mistakes that WILL NOT COST OUR CUSTOMERS ANYTHING. Except, perhaps, a bit of temporary inconvenience — for which inconvenience we sincerely apologize.

And since this has been our policy from the very start, we have not waited for any of our machines to give our customers any problems — if there was any slightest doubt in our minds, we simply shipped the customers replacement machines, at no cost to the customers, freight prepaid by ourselves. Or — if problems of a minor nature came to our attention — then we corrected them by sending the customers the required parts for simple modification of their machines. At no expense to the customers, of course.

Two such problems have recently come to our attention — and all such problems will be corrected as rapidly as possible, at our expense.

1 — Earlier models of Nautilus Triceps Machines were constructed with $\frac{3}{4}$ " (three quarters of an inch) solid, cold-rolled steel "movement arms" — this is the horseshoe-shaped bar that the hand pads are attached to, the chromed bar that passes over your head in the machines — and we have now found that some of these bars, in very heavy use, have bent slightly.

To our knowledge, none of them have failed in service, and we do not think that they ever will fail in service — but at least some of them have bent slightly, and they shouldn't bend. So they are not right — they are not what they should be, and this failure is our responsibility and we accept it.

As soon as this problem came to our attention, we corrected it — by increasing the size of the hubs, and by increasing the size of the cold-rolled steel bar that is formed into the "movement arms" for these machines. Upon seeing the changes I made in this unit, one man remarked that it was "over engineered" — unnecessarily strong, far stronger than required.

Perhaps the unit now is "too strong" — but it certainly is "strong enough." If an adult gorilla can bend this unit in normal service, then we will replace it with a unit that King Kong won't be able to bend. The original hubs weighed 2 pounds and 15 ounces after machining — we have replaced them with new hubs that weigh 11 pounds and 8 ounces (each) after machining; an increase in size of the hubs of nearly 300 per cent — the new hubs are almost four times as heavy as the older hubs. We have also increased the size of the solid cold-rolled steel bars from $\frac{3}{4}$ of an inch to a full one inch — an increase in the mass of these bars of approximately 66 per cent, and an increase in bending strength of more than 100 per cent.

Casey Viator is by far the strongest bodybuilder I ever knew, and he used one of the early models of this machine for nearly a full year — and he used far more weight on it than I have ever seen anybody else use — and HE NEVER BENT ONE OF THESE BARS; but some other people have bent them slightly — so we have corrected the situation, so that nobody will ever bend one again.

If you own a Nautilus System Triceps Machine — or a Combination Curling and Triceps Machine — and if the triceps station bar is constructed from $\frac{3}{4}$ inch steel, then please contact us immediately. At our expense, we will replace the entire triceps works — the two hubs, the spiral pulley, the movement arm, the two pad brackets, the counterweight, everything.

Owners of older model machines will receive an entirely new, much heavier, triceps works — all they have to do is remove the old works and replace it with the new unit. The new units will fit older machines perfectly — no modifications are required, simply remove the axles, pull out the old unit, slip in the new unit, replace the axles, reattach the cable, and you are in business. It will require approximately ten minutes of work on the part of the customer — in compensation for which we are also sending all customers brand-new axles and hand pads, together with our sincere apology for the trouble.

FUNCTION of the machines will NOT be affected — the geometry of the machines will be exactly the same as it was before the alteration; but involved customers will have stronger machines — machines that should last "forever."

2 — Another problem that has now come to our attention involves several types of Nautilus Machines. Early models of Behind-neck Type Torso Machines, Torso-Arm Machines, and Rowing-type Torso Machines used special-made rubber wheels as "guides"

for their weight-baskets — and in a few cases, these rubber wheels have created problems.

So, when this problem first came to our attention, we corrected it: by changing the design of the weight baskets, by replacing the rubber wheel arrangement with a totally new design — a design that we are sure will last almost literally "forever" in hard service, a design that seems to be perfect.

All recent Nautilus Machines, of course, were built with this new design incorporated into their construction — but the fact remains that quite a number of people bought earlier models of this machine that used the rubber-wheel design. A few customers have had, and a few other customers may have, trouble with these machines — so we are replacing ALL of the weight-baskets in ALL of these early model machines.

We have already written directly to the original customers who purchased any of these types of Nautilus Machines — but people move, machines change hands, gyms are sold to new owners; so it is at least probable that we have not yet reached the owners of all of these early model machines. If you own a Nautilus Machine that uses rubber wheels as "guides" for the weight basket — please contact us immediately; we will send all of the required parts for converting the machines to the new weight-basket design — freight prepaid at our expense.

This change will NOT alter the "function" of the machines — it will merely assure problem-free operation of the machines for many years in hard service.

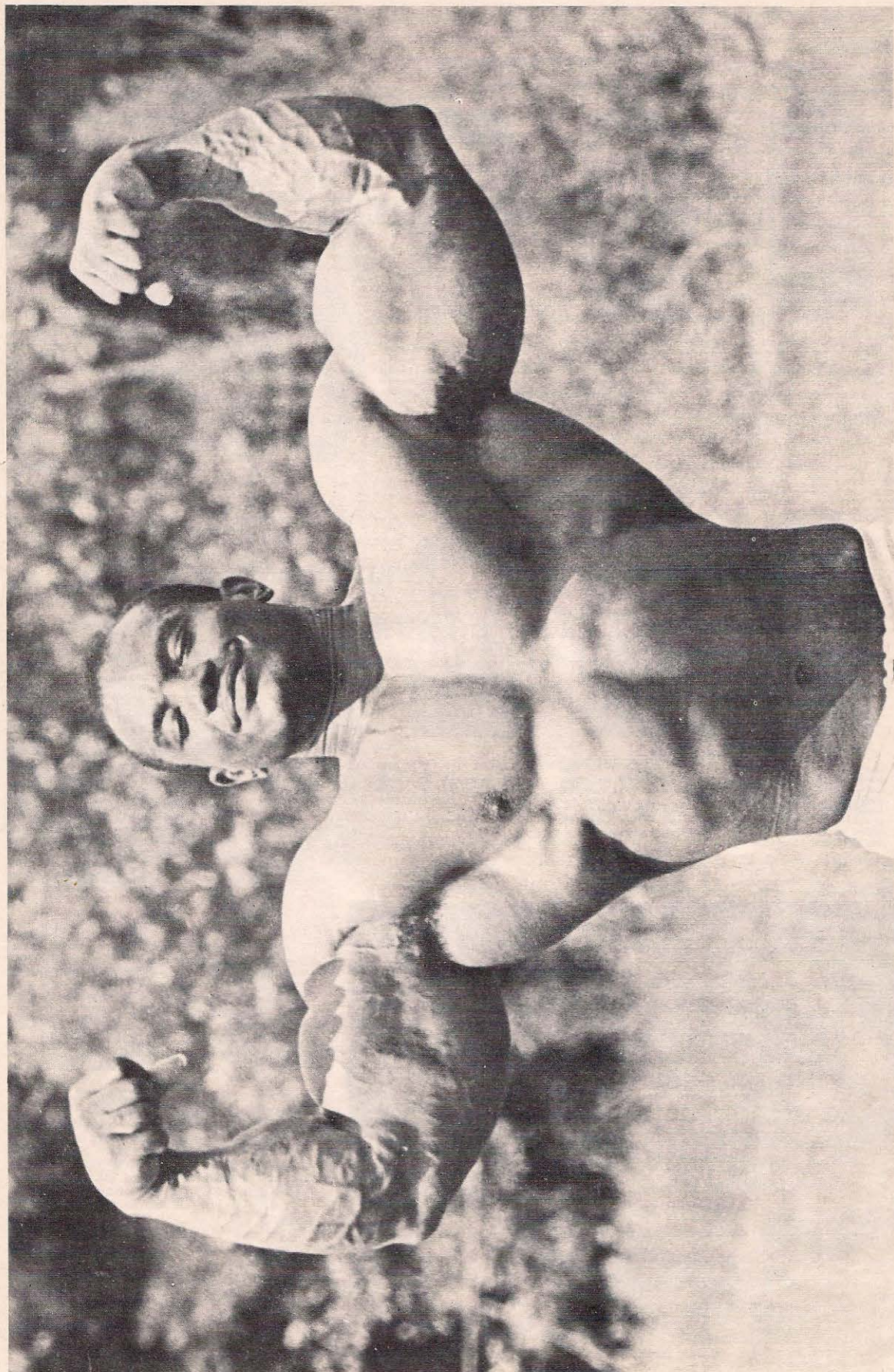
Unfortunately, we cannot do anything except apologize for any inconvenience that this problem may have caused some of our customers; but we CAN solve the problem — and we have done so. We can at least assure that this problem will not occur again — and we have done so.

In the future, it is probable that we will make other mistakes — but if we do, we will be responsible for them, and we will make the machines "right," regardless of what it takes to do so, up to and including replacing the machines entirely. We could do a lot LESS — we can not do anything MORE.

If you ever have a problem — any sort of a problem — with a Nautilus Machine, then let us hear about it; we want to hear about any such problems, so that we can correct them. Even if a problem is so minor that you can correct it yourself in a minute or less, let us know about it — only in that way can we get the required information for building foolproof machines, machines that will NEVER GIVE PROBLEMS. Which is our goal.

All of our machines are tested in the "best possible" situation — that is to say, under the "worst possible" circumstances where the machines are being used and ABUSED — in a high school gym where few of the students care about treating the machines carefully, and where some of the students are interested only in trying to wreck the machines. If they can wreck them, then the machines are not yet "right" — but in the end, if we are given the cooperation of our customers in the form of the required information, then we will make them "right."

ARTHUR JONES PRODUCTIONS
P. O. Box 1783, DeLand, Florida 32720
Phone (area code 904) 228-2884



Sergio Oliva after training on the Nautilus Arm Machine.

NAUTILUS SYSTEM ARM MACHINES...

In London, backstage at the pre-judging of the NABBA Show, Reg Park asked Sergio Oliva, "... how did you get your arms so huge?"

Sergio told him, "... two sets for the biceps — and two sets for the triceps."

"Every day?" Reg asked Sergio.

"No," Sergio said, "three times a week — and sometimes only twice a week."

"I don't believe it," Reg said.

"Well," Sergio said, "that's the way we do it — whether you believe it or not."

And, quite frankly, Reg has good reason for not believing it — or, in fact, at least two good reasons; because (1) he has never tried it, and Nautilus training is in no meaningful way related to any type of training that he ever has tried — and (2) even Nautilus training would NOT produce such results for HIM, as an individual. He simply does not have, and never did have, Sergio's potential for muscular size — so no amount of any kind of training would ever have given him arms equal to Sergio's arms. Which certainly is not — and is not meant to be — critical of Reg; he (Reg) has done simply wonders with the potential that he did have — Nautilus training would have given him "better" results, and it would have given him "far faster" results, but it would NOT have given him development equal to that now shown by Sergio.

Men with an I.Q. of 200 are literally freaks — men over 7 feet tall are literally freaks — and in the same sense of the word, Sergio is a freak; most people could NEVER duplicate his muscular size — and up to this point in the history of the world, NOBODY has ever even come close to duplicating his muscular size while remaining in actual "muscular condition" — and NOBODY has ever even come close to duplicating his muscular proportions (or overall "balance"), of his almost unbelievably symmetrical development.

Looked at separately, his individual body parts — every single one of them — are literally unbelievable, huge, big almost beyond imagination, fully-developed, well shaped, and defined to the point that they appear to be carved out of solid bronze; but viewed together, these same body parts blend together in such a way that they seem literally perfect, not too big, not too small, exactly as they should be — and thus his overall appearance is one of perfection, if almost unreal, balance and proportion.

Beyond any shadow of a doubt, Sergio Oliva is literally in a class of his own — no other man in history ever looked like he looks at present; Arnold Schwarzenegger is nearly as large in some body parts, and he is taller than Sergio, and he is also in a class of his own — but he does NOT look like Sergio, he does NOT literally stagger the imagination of people who see him. Between these two men — Sergio and Arnold — it is a matter of opinion as to which one has the "best" physique; but they have no rivals at the moment — and in the history of physical training they have never had any rivals.

Certainly Sergio was "big" even before he ever heard of Nautilus machines or training methods — but were his arms then literally LARGER THAN HIS HEAD? Look carefully at the picture of Sergio that is a part of this advertisement — accurately measure the width of Sergio's flexed upper-arm (either arm, they are both the same size), and then compare that measurement of the arm to a measurement of the height of his head: his arm is WIDER than his head is high — the width of his arm exceeds the distance from below his chin to above the top of his head. NOBODY else in the history of the world ever had a muscular arm that large — and even Sergio didn't have that kind of muscular size before he trained on Nautilus Arm Machines.

Show me another picture — ANY PICTURE — of Sergio (or of anybody else) that shows such huge muscular size and I will eat the book that such a picture is printed in: and there is no "hanky-panky" here with wide-angle lenses or phony camera positions intended to depict

distorted impressions of size — this picture was taken from approximately 50 yards away, in order to prevent distortion, in order to depict his actual size in true perspective. It is, in fact, a "blown-up" section of a smaller, full-length (head to toe) picture of Sergio — and we can produce the original full length picture to prove it — not a "similar" picture, but the exactly same picture.

For years, many bodybuilders have been "claiming" huge muscular measurements — sometimes they have claimed measurements that were literally ridiculous, utterly impossible, impossible by several inches: thus I once said that, "... show me a man with arms as big as his head, and I will show you a pinhead: but his arms still won't be anywhere near as big as he claims."

But Sergio's arms literally ARE as big as his head — in fact, they are LARGER than his head; and he is NOT a pinhead — so I must now eat my former words, which I have already done.

Someday, it is almost certain that SOMEBODY will come along who will build even larger muscular arms — but they haven't done so yet; and even Sergio couldn't do so until he trained on Nautilus Machines.

Nautilus Arm Machines will NOT produce such muscular size for just anybody — but they WILL produce maximum-possible degrees of muscular size and strength for literally ANYBODY; the actual limits of such size being limited only by individual potential — which is hereditarily determined and not subject to change.

Build your arms as big as you can by ANY method except Nautilus equipment — and then come to DeLand in muscular condition with the largest arms you can build; if you will simply follow instructions and use the machines as we will instruct you to — and that means very hard, but very briefly, and infrequently — we will GUARANTEE to put at least a full one-half inch on the "cold" measurement of your upper arms within less than two weeks (½ inch on "each" arm) — and in most cases, this first half-an-inch of muscular size increase will be produced in the first TWO DAYS. WE ALLOW OURSELVES TWO WEEKS JUST IN CASE YOU MAY BE A SLOW GAINER.

You think otherwise? Well, Casey Viator gained faster than that during his first two weeks here, and his arms were already literally "huge" when he first came here — and Pete Caputo gained faster than that — and Chuck Amato gained faster than that — and Franco Colombu gained faster than that — and Sergio gained at almost exactly that rate — and Bob Ellerby gained faster than that — and Johnny Meyers gained faster than that (in fact, Johnny lost a bet on the subject) — and literally dozens of others have gained faster than that; and all of these men were already "at" or "very near" their maximum muscular size when they came here — or, at least, they thought they were, and they probably were insofar as possible gains from conventional equipment are concerned.

The Nautilus Arm Machines probably won't make you as big as Sergio — but they will take you as far as YOU can go — and quickly

NAUTILUS COMBINATION CURLING AND TRICEPS MACHINES \$825.00
F.O.B. DeLand Florida

picked up (uncrated) in DeLand. If machines must be shipped, add \$35.00 for crating. Florida residents add 4 per cent state tax.

Two-station, two-exercise machines for maximum possible development of the major muscular structures of the upper-arms, the biceps and triceps. This machine provides ALL of the revolutionary Nautilus principles — full-range, direct, omni-directional, constant, automatically-variable, rotary form, balanced resistance.

These machines will NOT pass through a door that is narrower than 37 inches — if your door is less than 37 inches, then the machine must be "sleeved" so that it can be taken apart in order to get it through a narrow door; if you have a problem with a narrow door, then please advise us of this fact at the time you order the machine — there is an extra charge (our exact cost for the work and materials involved) of \$22.50 for "sleeving" these machines.

Delivery within one week of the receipt of orders in most cases — and in two or three weeks in all cases; freight collect in all cases.

NAUTILUS SINGLE-STATION TRICEPS

MACHINES \$460.00

F.O.B. DeLand (uncrated), crating and/or sleeving costs as above.

NAUTILUS SINGLE-STATION CURLING

MACHINES \$485.00

F.O.B. DeLand (uncrated), crating and/or sleeving costs as above.

All Nautilus Arm Machines — and all other Nautilus Machines — are guaranteed for ten years; if any metal part fails (for any reason apart from an outright attempt to damage the machine) we will replace it without charge. Cables, paint, and padded areas will, of course, eventually have to be replaced and/or renewed — but such is normal wear, just as the tires on your car don't last forever; but if the major parts of the machine prove anything less than perfect in hard service for a period of at least ten years, then we will replace them without cost to the customer.

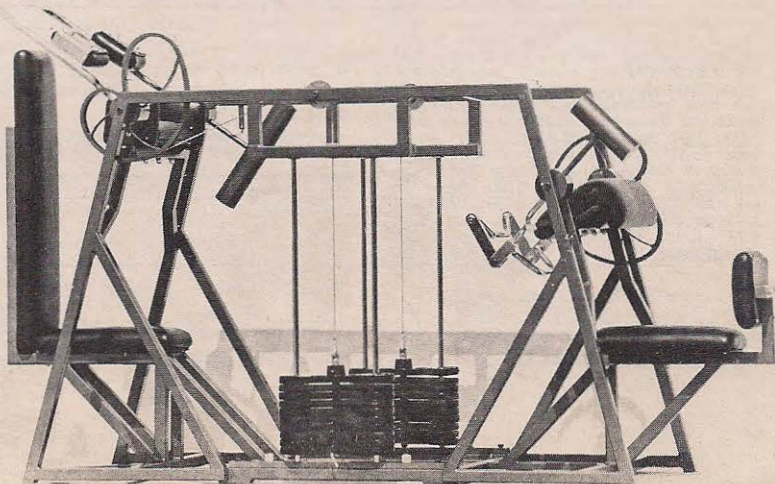
Overall construction of the machines is simply beyond comparison to any other type of training machine or equipment — the machines are literally as good, as strong, and as attractive as we are capable of making them; and if we later find ways to improve them, then all owners of any Nautilus Machines will be sent any and all parts that may be required to improve their machines — free.

ARTHUR JONES PRODUCTIONS

P.O. Box 1783, DeLand, Florida 32720

Phone area code 904 228-2884

The Nautilus Arm Machine



NOW —

TRAIN UNDER THE PERSONAL DIRECTION OF ARTHUR JONES, INVENTOR OF THE REVOLUTIONARY NAUTILUS TRAINING SYSTEM —

Personal supervision is one of the real secrets of success in physical training of any kind — and during the last fifty years alone, literally millions of people have purchased mail-order training courses from a number of experts in the field; but usually with little or nothing in the way of worthwhile results — because it is almost impossible to communicate clearly on this subject when the method of communication is limited to the written word. Realizing this great shortcoming of previously-used training systems, we have developed a totally new, person-to-person approach to the problem — and after two years of development, this system of training is now available on a limited, "first come, first served" basis. With the use of Bell System WATS Service (Wide Area Telephone Service), your training will be personally directed by the people responsible for the development of the revolutionary Nautilus System of training.

Facts are facts — but people are individuals, and their problems are usually individual in nature. The perfect solution in one case may be (and frequently will be) the worst-possible approach to the situation in another case: in effect, while the same methods will work in ALL cases — the application of those methods MUST BE on an individual basis. With the use of standardized, printed training programs, it is simply impossible to produce the same degree of results that can be produced by individual, person-to-person training instructions.

During the last year alone, hundreds of trainees from all over the country (and quite a number from out of the country, from Europe, from South America, from Canada, and even from Australia) have visited DeLand, Florida, for the purpose of training under the personal supervision of the developers of the Nautilus System of training. Casey Viator lived and trained in DeLand for almost a full year — while training for the Teen-Age Mr. America contest, the Mr. U.S.A. contest, the Jr. Mr. America contest, and the 1971 Mr. America contest. ALL OF WHICH CONTESTS HE WON. Pete Caputo trained in DeLand in preparation for the WBBG Mr. America contest of 1971, WHICH HE WON. Sergio Oliva trained in DeLand for the NABBA Mr. Universe contest in London — and while the results of that contest are not yet available, I can state that Sergio became the first man in history to build his arms to such a size that they are actually LARGER THAN HIS HEAD, almost unbelievable muscular size that literally must be seen to be fully appreciated, size that Sergio HAD NOT been able to develop during ten years of training elsewhere, size that he DID develop during two months of training in DeLand. Within the last year, our trainees have won thirty-four first place trophies in major physique competition — including every major AAU physique contest held during that period. We must be doing something right — and one of the "secrets" is individual, person-to-person supervision of

training: TRAINING THAT IS NOW AVAILABLE TO ANYBODY — ANYWHERE.

Because of distance, time, and financial considerations, most people cannot come to DeLand to train — but NOW, with the use of Bell System WATS Service, the advantages of individual, person-to-person training can be utilized by anybody. The Bell System WATS Service (Wide Area Telephone Service) provides large blocks of long-distance telephone service at "wholesale" prices — effectively reducing the normal cost of long-distance telephone conversations. On an annual basis, the WATS service costs approximately \$23,000.00 for one line — which, of course, is far from being inexpensive; but if this service is properly utilized on a reasonably large scale, then the "cost per call" is greatly reduced — it becomes possible to make "more" calls, and "longer" calls, at the same total cost, since you are paying for an open line instead of paying for each call on an individual basis.

The resulting reduction in the cost of long-distance telephone calls now makes it possible for us to offer direct, person-to-person, individual training instructions to anybody living within the limits of the continental United States (excluding Alaska) — at a price within the range of almost anybody, and at a price far below the normal cost of such personalized instruction. Thus we can now offer a full three MONTHS of individual training guidance for a total cost of only \$56. — including the cost of the many lengthy long-distance telephone conversations that form the "heart" of this method of training.

For obvious reasons, such individual training can be made available only on a limited, "first come, first served" basis — we can provide this service for only a certain, definitely limited number of people. A total of seven long-distance telephone conversations will be involved — a total of TWO HOURS AND TWENTY MINUTES of person-to-person conversation with each trainee. And since there are only so many hours available, it is obvious that only a limited number of trainees can be served.

In addition to seven person-to-person long-distance telephone conversations of twenty minutes each, trainees will receive complete, individually-designed training routines and instructions by mail; programs that will be carefully, fully explained in writing — and then personally explained during the many long-distance telephone conversations.

For the purpose of correctly explaining the proper methods and styles of training, the written word (alone) is almost useless — even when pictures, charts, drawings, and explanatory diagrams are included; no amount of written explanation can ever make the most important points perfectly clear — no amount of reading can answer all possible questions.

But when all of the required information is available in written form — and when you can personally discuss your individual training problems with the author of the training in-

structions you are following — then it becomes possible to easily and fully understand all of the involved factors; if something isn't clear — ask the author to explain it to you, fully. If you have individual problems (and everybody does) — ask the author to help you understand and solve them.

Taken altogether, the long-distance telephone conversations, the books, the individual training routines, the personal attention to individual problems, this course of training is the "next best thing" to training personally in DeLand under the direct supervision of the inventor of the revolutionary Nautilus System. And while it should be clearly understood that most people will NEVER look like Casey Viator or Sergio Oliva — no matter how they train, and regardless of who supervises their training — it is nevertheless true that ANYBODY can produce maximum-possible progress within the limits of their own individual potential. But such progress is possible only if the correct information is available and fully understood — and such understanding can only come from personal conversation combined with the proper reading material.

In order to make this service available to anybody, we must have at least FORTY new trainees monthly — just to cover the cost of the WATS Service; and because of limitations of time, we can NOT offer this service to many more than that number of trainees — thus this training opportunity can be offered ONLY on a very limited, "first come, first served" basis. If too many people are interested (and that is probable), then those that cannot be served immediately will receive a refund in full — together with a letter stating when a future vacancy will exist; and one free long-distance call for the purpose of answering the most important training questions.

It is not essential that you own or have access to Nautilus training equipment to take advantage of this offer. Whatever you have at your disposal in the way of progressive resistance apparatus may be utilized. Barbells, squat rack, parallel dipping bars, chinning bar and/or any other items of this nature can be incorporated into such a program. In fact, an astonishingly effective, result producing program can be fashioned with a standard plate loading barbell as the only tool.

Trainees that are accepted will receive an immediate mailed answer containing detailed instructions, including the day, date, and time of the first long-distance call.

THREE months of personal instructions — all costs included — covering "everything" (diet, form, style, order of training, exact programs, etc.), all for \$56.00

ARTHUR JONES PRODUCTIONS
P.O. Box 1783 — DeLand, Florida 32720
Ph. area code 904 228-2851

THE BEST NAUTILUS MACHINE...

Hundreds of people have called — and thousands of people have written — to ask me "which is the BEST Nautilus Machine?" Invariably, I then ask them, "... BEST for what purpose?"

The first type of Nautilus Machine was the Pullover-type Torso Machine — and in some ways it is the "best" of the Nautilus Machines; and it is usually the machine that I recommend as a "first" machine — since I know that the customer will be more than pleased with it, will get a better machine than he expects, will almost certainly produce far better results than he probably even believes possible. Hundreds of people have ordered or used a Pullover-type Machine first — and have then ordered (or requested that the gym where they were training order) other types of Nautilus Machines.

The physical principles incorporated into the function of the Pullover-type Machines are in no way different from those used in other types of Nautilus Machines — but there is a "difference." This difference being directly due to the fact that (in the case of the Pullover Machines) these principles are being applied to the largest muscular structures in the torso — and, secondly, these principles are being applied to muscles that literally can NOT be worked in a manner even approaching the correct manner while using conventional types of exercise equipment.

While it isn't "easy" to work the arms (for example) as hard as they should be worked if you are using conventional equipment — and while it is simply impossible to work the arms "properly" while using conventional equipment — it is, nevertheless, at least possible to work them in a manner that will produce fairly good rates of progress and will eventually produce a good degree of final results. Thus, in the case of the arms, conventional equipment eventually will produce good results — if not the maximum-possible degree of final results, and if not in anywhere near the same length of time.

But when it comes to trying to develop the major muscular structures of the torso — the lats, the pecs, the traps, the abdominals, and all of the other, smaller muscles of the torso — then it is an entirely different matter; no amount of training with conventional equipment will ever produce a degree of development even closely approaching that which can be produced with Nautilus equipment — and the use of conventional equipment for the torso muscles will demand years of training to produce the results that only a few weeks of the proper use of Nautilus Torso Machines will produce.

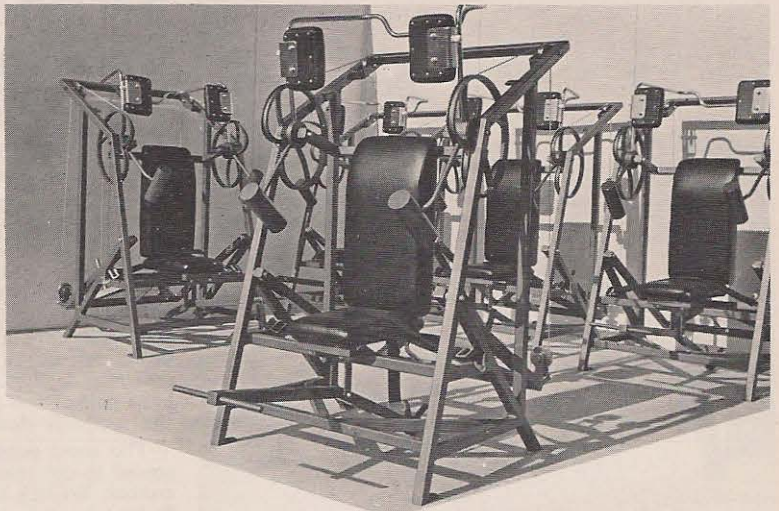
BECAUSE, with conventional equipment — you literally can NOT directly work any of the torso muscles (except the abdominals) that are worked so effectively by Nautilus Machines. It is impossible — not "difficult," IMPOSSIBLE — to work the latissimus muscles directly with conventional equipment.

It is equally IMPOSSIBLE to provide full-range work for the latissimus muscles with conventional equipment.

It is also IMPOSSIBLE to provide "balanced" resistance for the latissimus muscles with conventional equipment; you are constantly limited by the strength of these muscles in their weakest position — which means that you will NOT have anywhere near enough resistance in the strongest position.

It is likewise IMPOSSIBLE to work your latissimus muscles with conventional equipment without also working your arms; which means that your movements will always be limited by the strength of the arms — and that your arms will be "overworked" while your latissimus muscles are not worked hard enough.

BUT WITH NAUTILUS EQUIPMENT, you CAN work the latissimus muscles properly; the exercise movements are "full-range" —



Nautilus Pullover Machines awaiting crating for shipment.

resistance is "double-direct", is applied directly to the body-part being moved by the muscles you are trying to work (instead of being filtered through the "weak-link" of the arms, as happens in all conventional exercises for the latissimus), and the resistance is "directly opposed" to the direction-of-movement of the involved body-parts — and the resistance is automatically variable, so that it changes as you move from a weak position to a stronger position, as it must in order to provide "proper" resistance in all positions.

For those reasons, and for other reasons, Nautilus Machines are far superior to any other type of training equipment — ALL Nautilus Machines are superior to ANY other type of training equipment, but SOME Nautilus Machines are "better" (or, at least, "more productive") than other Nautilus Machines.

BECAUSE, some Nautilus Machines apply the revolutionary principles of all Nautilus Machines to LARGER muscles, and-or apply these principles to muscles that literally can NOT be worked well with conventional equipment. Such is the case with the Pullover-type Torso Machines — these revolutionary physical principles are applied to the largest muscles of the torso, and they are applied to muscles that can NOT be worked well with conventional equipment.

If you double the size of a rabbit, you have increased his mass by 700 per cent, because he will then be "twice as long," and also "twice as wide," and also "twice as high" — so he will weigh eight times as much as he did before you "doubled him;" but he still won't be very large. And if you double the size of an elephant, then your "rate of increase" will be exactly the same as it was in the case of the rabbit; but with a great and obvious "difference" — in the case of an elephant you will add as much as 160,000 pounds to his weight. Whereas, in the case of the rabbit, you might add only 40 pounds. Thus, while the "degree of increase was the same in both cases — the "actual" increase was very different.

Doubling the size of the major torso muscles — or increasing their mass to any degree — will thus produce a far greater increase in muscular size and strength than would be produced by an equal degree of improvement in the arm muscles; simply because the torso muscles are (at least potentially) much larger than the arm muscles.

Secondly, because of "indirect effect," the growth of any muscular structure in the body will always result in at least "some" degree of growth in all of the muscular structures of the

body — and the actual "amount" of such growth resulting from indirect effect is — primarily determined by the size of the muscles that are growing in response to direct exercise. In effect, growth of a "big" muscle will cause more secondary growth as a result of indirect effect than would have been produced by the growth of a "small" muscle; if the arms grow in response to exercise, the lats will also grow "some," even if they receive no direct exercise — but if the lats grow in response to exercise, then the arms will grow to a greater degree and to a greater "amount" than would have been produced in an opposite situation.

Nautilus Pullover-type Torso Machines incorporate ALL of the actually revolutionary physical principles of any of the Nautilus Machines — providing full-range, double-direct, rotary form, omni-directional, constant, automatically-variable, balanced resistance, and they provide this remarkably productive form of exercise for the LARGEST muscles in the torso — muscles which can NOT be worked properly in any other fashion.

While the Pullover-type Machines were designed to work the latissimus muscles over their full range of possible movement, they also (and unavoidably) provide a high degree of very productive exercise for all of the muscles of the torso — the pectorals, the traps, the abdominals, etc. When using the Pullover-type Machine, for example, absolutely no other form of exercise is required (or even desirable) for the abdominals. So if you are limited to "one" Nautilus Machine — or if you are interested in the "first" Nautilus Machine — then I cannot too strongly suggest the Pullover-type Torso Machine as an obvious choice; it will almost certainly be far better than you expect — and it absolutely will produce maximum-possible degrees of results in the way of size and strength increases in the major muscular structures of the torso.

PULLOVER-TYPE TORSO MACHINES — \$745 F.O.B. DeLand, Florida

If machines must be shipped, add \$35. for crating — if machines are picked-up (uncrated) in DeLand, then there is no charge for crating. Florida residents must add 4 per cent state sales tax — no tax on machines shipped out of the state of Florida. Shipment within one week of the receipt of orders in most cases.

Phone area code 904 228-2884
ARTHUR JONES PRODUCTIONS
P.O. Box 1783, DeLand, Florida 32720

WHY NAUTILUS?

Quite a number of people are familiar with the major problems encountered in barbell training, and somebody else might have been able to do something about them — but they didn't.

Somebody else could have taken the trouble to study the basic physics of exercise — but they didn't.

Somebody else could have applied pure logic instead of guesswork to the field of progressive weight-training — but they didn't.

Somebody else could have designed, built, tested and then scrapped a pile of exercise machines as big as a house before being satisfied with the final design — but they didn't.

Somebody else could have devoted years of their time and many thousands of dollars of their own money to basic research into the actual functions of muscular structures — but they didn't.

Prior to the development of Nautilus Training Machines, the barbell was by far the most significant contribution to the field of exercise. Almost without single exception, training equipment developed after the introduction of the barbell was designed to duplicate barbell exercises — with the emphasis on comfort, convenience and safety; all of which factors are important, of course, but none of which have any slightest bearing on function, the ability to produce worthwhile results.

The people who designed such equipment were simply unaware of the physiology of muscular function factors involved in exercise — clear proof of such ignorance being apparent upon even a casual examination of almost any type of conventional training machine. Too general a statement? Well, take a specific example, the well-known Universal Machine now in use in thousands of schools; when using the self contained weight stack built into the thigh-extension station of this popular machine, the geometry is such that the resistance imposed upon the muscles of the thighs changes throughout the movement, **REDUCES** itself as the movement progresses, is heaviest at the start of the movement and lightest at the end of the movement — but if you are able (as many people are) to use more weight than is provided by the machine, then extra weight can be added by placing barball plates onto a steel pin built-onto the machine for that purpose, **BUT** such added resistance produces a function exactly opposite from that provided by the basic resistance source, such added resistance **INCREASES** itself

throughout the movement. As should be obvious, both functions simply **CANNOT** be correct — if one is right, then obviously the other is wrong.

Recently, the manufacturers of such machines seem to have devoted most of their attention to attempts to eliminate the use of steel cables — in order, so far as it is possible to do so, to eliminate the necessity for changing cables when they become worn. In its brochure, one such company apologized for the necessity to use cables in a new leg machine. Which is fine, if cables can be replaced by levers without downgrading the function of exercise machines — which, in most cases, is not possible. The use of a lever (instead of a cable) unavoidably introduces changing moment-arm factors into the function of a machine — and in at least a few cases (if the design of the machine is right), this can actually produce an improvement in the function of such machines; but in almost every single case that I am aware of, the use of levers reduced the value of such machines insofar as function is concerned.

In many cases, only slight changes in the design would enormously improve the function of the machines — and since such changes were not made (such easily possible changes) it seems only logical that the people responsible for the design of these machines simply did not understand the physics and-or physiology involved.

We are not against convenience — and proof of that statement is the fact that Nautilus Machines are by far the most convenient exercise devices in the history of exercise. We are not against comfort — as is proven by the fact that Nautilus Machines are the most comfortable training machines in existence. We are not against safety — which is clearly proven by the fact that Nautilus Machines are much more rigid, far stronger, and smoother in operation than any other type of exercise machine built by anybody.

But our primary interest is in **FUNCTION** — the ability of Nautilus Machines to produce worthwhile results, best-possible results, fastest-possible results; and in that regard, we simply have no competition — if you can't use Nautilus Machines, then use a barbell.

Somebody else could have done something except try to imitate barbell exercises — but they didn't. **NAUTILUS DID.**

ARTHUR JONES PRODUCTIONS
P.O. Box 1783, DeLand, Florida 32720
Phone area code 904 228-2884

The ENCYCLOPEDIA of EXERCISE

ANNOUNCING — A special, limited, first edition of the most comprehensive book ever written on the subject of exercise; edited by Arthur Jones, with major contributions by the editor — a total of more than 1,200 pages, approximately three-quarters of a million words (longer than the Bible), with more than 1,000 outstanding photographs, charts, graphs, and diagrams.

One hundred and twenty chapters covering everything of importance that is presently known on the subject of exercise; while some of the contents has been published previously — in medical journals or elsewhere — none of it has ever been published in periodicals available to the general public, and none of it has ever been published in clearly stated, informal language. Approximately two-thirds of the contents (more than 500,000 words) have never been published previously anywhere. You could read a thousand books on the subject of exercise — and all of the thousands of copies of physical culture magazines published during the last seventy years — but you would not encounter even half of the knowledge contained in this one all-inclusive book.

A first-printing of only 3,000 copies will be produced — and out of this limited edition, several hundred copies have already been spoken for. Thus a total of only approximately 2,200 copies are now available on a first-come, first-served basis — at a special pre-publication price of \$18. It should be clearly understood that the books will not be delivered for several months, perhaps the better part of a year; but it should also be understood that books purchased later — if they are available at any price — will be priced at \$30 or more. In the event that orders for more than the available number of copies are received (and this is almost certain), then immediate refunds will be made in full. Customers placing orders that are accepted will immediately receive a receipt for their payment — a receipt clearly stating the number of the volume they will receive from this limited edition. Payment must be in full and must accompany orders — no C.O.D. orders will be accepted. Postage will be paid in full when the books are mailed — and all books will be mailed in heavy cardboard containers to assure arrival in mint condition.

ARTHUR JONES PRODUCTIONS
P.O. Box 1783, DeLand, Florida 32720

NAUTILUS SYSTEM TRAINING EQUIPMENT

THE FIRST, THE ONLY TRULY-REVOLUTIONARY, AND BY FAR THE MOST-PRODUCTIVE DEVELOPMENT OF REAL VALUE SINCE THE INVENTION OF THE BARBELL.

If you can not use Nautilus Machines, then use a barbell — without single exception, every other so-called "Improvement" in training equipment has been a firm step in the exactly wrong direction.

The following is a list of presently available Nautilus equipment; some Nautilus Machines are made in two models — "regular" models, and Deluxe, Selectorized (self-contained weight stack) models — but the only real difference is in convenience, the "functions" of the machines are identical, exactly the same in all models. Deluxe, selectorized models of Nautilus Machines will NOT produce better results than the regular models of our equipment; but they do add convenience for use in large commercial gyms, spas or schools — where large numbers of users might otherwise scatter weights around. And they do prevent the theft of loose plates (weights), since the self-contained plates are not easily removable from the machines — and since they would not fit a barbell or be usable otherwise in any case.

Listed prices will show three columns of figures, the first row of figures represents prices for "regular" models of Nautilus Machines or other Nautilus equipment — the second (middle) row of figures lists the prices for Deluxe, selectorized Nautilus Machines — the last row (the row to the right) lists "crating charges" for machines that must be shipped. There is no crating charge for machines picked-up uncrated in DeLand, Florida, at the Nautilus factory — but it is necessary to charge crating fees for machines that must be shipped; Nautilus Machines are large, heavy, complex, and beautifully made — and they must be packed very carefully in order to protect them during shipment. Most companies simply add the crating charges to the cost of ALL machines — but say nothing about them; we feel that it is unfair for customers who pick up their equipment at the factory to pay for something (crating) which they do not receive — and since a customer that hauls his machines away in a truck or in a trailer behind his car does not require the crate, we do not think he should be charged for one.

In the cases of some items of Nautilus equipment, crating is very simple — and in these cases, there is no charge for crating, and thus some items will not have any figures listed in the crating-charges column.

In a few cases, we make only one model of Nautilus Machines of certain types — for example, Nautilus Leg Machines are made in selectorized models only; so there will be no figures listed in the "regular" model list in such cases.

The order in which the machines are listed is NOT simply a random order; rather, the machines are listed in what we consider to be their "order of importance" — for example, if you are primarily interested in development of the major muscular structures of the torso, and if you plan to purchase the machines one at a time, then you should first order the Pullover-type Torso Machine — and should, secondly, order the Behind-neck Type Torso Machine — and should, thirdly, order the Torso-Arm Machine. Because these machines are designed to be used together, in sequence — and their "importance" is related to the order indicated above.

Machines indicated by a "star" (*) are the machines we feel are required for a fully-equipped,

modern gym — but it is NOT necessary to own all of these machines in order to get good results; any one of the Nautilus Machines — as a single unit — will give far better results than any other type of training equipment in existence, and any of the Nautilus Machines can be used in conjunction with barbells or conventional pulley machines.

All Nautilus Machines are built to the HIGHEST POSSIBLE standard of quality — in basic construction features, the "regular" models of Nautilus Machines are little if any different from the Deluxe, selectorized models of the same types of machines; and most "regular" models of Nautilus Machines can be easily converted to Deluxe, selectorized models simply by later purchasing (as a separate unit) the required parts. No "cutting," or "sawing," or "burning," or "welding," or special tools are required — and converting a regular model to a selectorized model is a matter of perhaps ten minutes work which can easily be performed by anybody with very simple, readily-available, inexpensive tools. You would require a light hammer, two small, standard-type wrenches, and a screwdriver — and ten minutes (or less) work.

So (in most cases) it is possible to purchase a "regular" model of the machine you want — and later, if you so desire, you can purchase the essential parts for converting it to a Deluxe, selectorized machine; and once converted, it will be exactly the same as it would have been if you purchased a Deluxe machine in the first place. But, "regular" or "Deluxe," the FUNCTION of the machines (their ability to produce good results) will be the same in either case.

Nautilus Machines that can be converted from "regular" to "Deluxe" models are indicated by two "stars" (**), which are placed AFTER the name of the machines. Machines that are not so marked can NOT be converted.

The frames of ALL Nautilus Machines are constructed of heavy-walled, square, steel tubing — with all seams fully welded — so that one part of the frame seems to flow smoothly into the next part without visible seams. The hubs of the special "spiral pulleys" are machined from solid, four-inch diameter, cold-rolled steel. The movement-arms are made from heavy, solid, cold-rolled steel that is formed precisely into the required shapes and double-welded into the hubs from the "inside" — so that no welds are visible. The movement-arms are hand polished and buffed to a perfectly-smooth finish — and then finished in high-quality, three-step chrome.

The overall "finish" given the basic framework of the machines is a multi-step process involving hand-grinding of all welds, filling, radiusing, sanding, polishing, priming, and finally painting with several coats of automotive paint; the result is a finish fully on a par with that of a fine automobile — a beautiful, durable finish.

The "spiral pulleys" (the very "heart" of Nautilus Machines) are constructed to EXACT size and shape in accordance with their required functions — and they are built around the previously-mentioned heavy steel hubs in such a manner that they should literally

UMENT . . .

last in hard service "forever." The perimeters are made from heavy steel channel and the spokes are welded on all sides to both the hubs and the perimeter — and the hubs are grooved so that the spokes actually extend "inside" the hubs. Again — all welds are hand-ground, filled, rediused, sanded, and finished to the Nautilus Standard of quality, the highest level of quality that is possible.

Smaller, redirectional pulleys are machined from solid steel — with pressed-in bronze bushings — and are then finished in chrome. The axles of all Nautilus Machines are special made, over sized, hardened, shoulder-bolt types that will give many years of service under even the worst conditions — they assure perfectly smooth, no-bind function, plus silent operation; and they can be removed and replaced in a matter of a very few minutes with simple tools if they ever should become worn — which is unlikely.

The bushings are solid bronze, porous, oil-impregnated types that are standard in all Nautilus Machines; such bushings are self-lubricating and require no care or attention of any kind — they should also last in hard service for many years, but can be replaced in a matter of minutes without special tools.

And spare bushings are provided free with all machines sold — even though, up to this point, we have NEVER had to replace a bushing.

The seats and padded areas of Nautilus Machines (the Combination Curling and Triceps Machine, for example, has a total of TEN padded areas — two seats, two seat backs, a curling pad, a triceps pad, two triceps-station hand pads, and two triceps-station elbow-restraining pads) are constructed around heavy-timber supports that are firmly bolted to the frameworks of the machines; covered in strong but soft padding and finished professionally with high-quality vinyl.

We even use "aircraft type" seat belts in the machines that require seat belts — in order to assure fast and simple function of the buckles.

In several of the machines, some of the parts are solidly filled with lead — in order to provide the "exact balance" that is required for proper function.

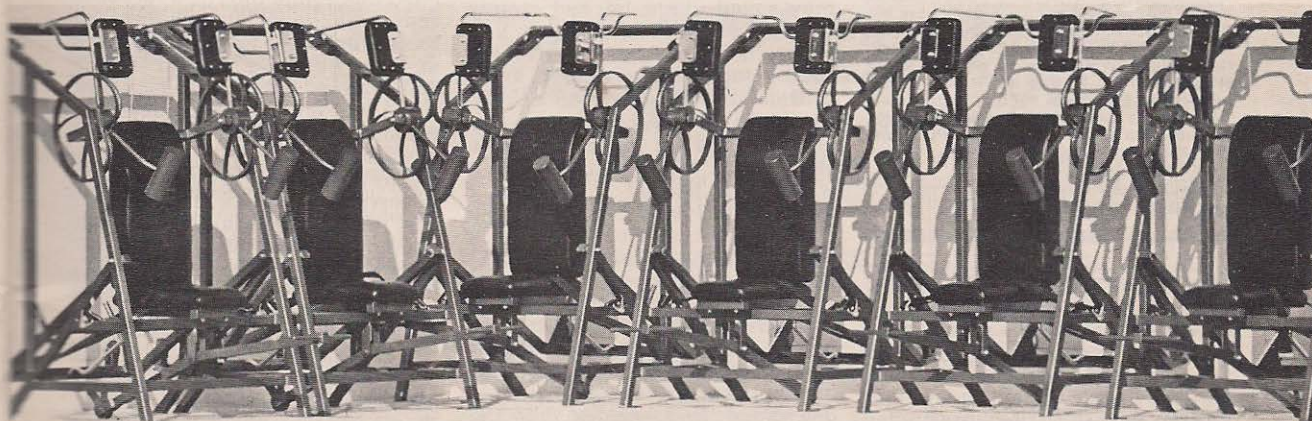
In short — NOTHING is spared in our attempts to make Nautilus Machines the BEST MACHINES IN THE WORLD, in every way. They are not yet perfect, and they may never be literally perfect — but they are as close to being perfect as we can make them; and we guarantee all metal parts (except cables, which must be changed as they wear) for TEN YEARS — and we also guarantee to "upgrade" (at no cost to the customers) all existing Nautilus Machines if and when we ever are able to improve them insofar as function, safety, and reliability are concerned.

	(regular)	(Deluxe)	(crating)
* NAUTILUS PULLOVER-TYPE TORSO MACHINES	\$745.	\$915.	\$35.
* NAUTILUS BEHIND-NECK TYPE TORSO MACHINES **	615.	740.	35.
* NAUTILUS TORSO-ARM MACHINES **	485.	640.	35.
NAUTILUS ROWING-TYPE TORSO MACHINES **	615.	740.	35.
NAUTILUS VERTICAL-TYPE SHOULDER MACHINES **	615.	740.	35.
NAUTILUS 45-degree TYPE SHOULDER MACHINES **	615.	740.	35.
* NAUTILUS DUAL-STATION CHEST MACHINES **	875.	1,170.	45.
* NAUTILUS DUAL-STATION SHOULDER MACHINES **	875.	1,080.	45.
* NAUTILUS COMBINATION CURLING & TRICEPS MACHINES **	825.	1,050.	35.
NAUTILUS CURLING MACHINES	485.	610.	35.
NAUTILUS TRICEPS MACHINES	460.	585.	35.
* NAUTILUS LEG-PRESS MACHINES		780.	55.
* NAUTILUS THIGH-EXTENSION MACHINES		590.	55.
* NAUTILUS SQUAT MACHINES		860.	55.
* NAUTILUS BUTTOCKS MACHINES		680.	55.
NAUTILUS PULLDOWN BARS		30.	
NAUTILUS "DOUBLE-CAM" SPIRAL PULLEYS		95.	

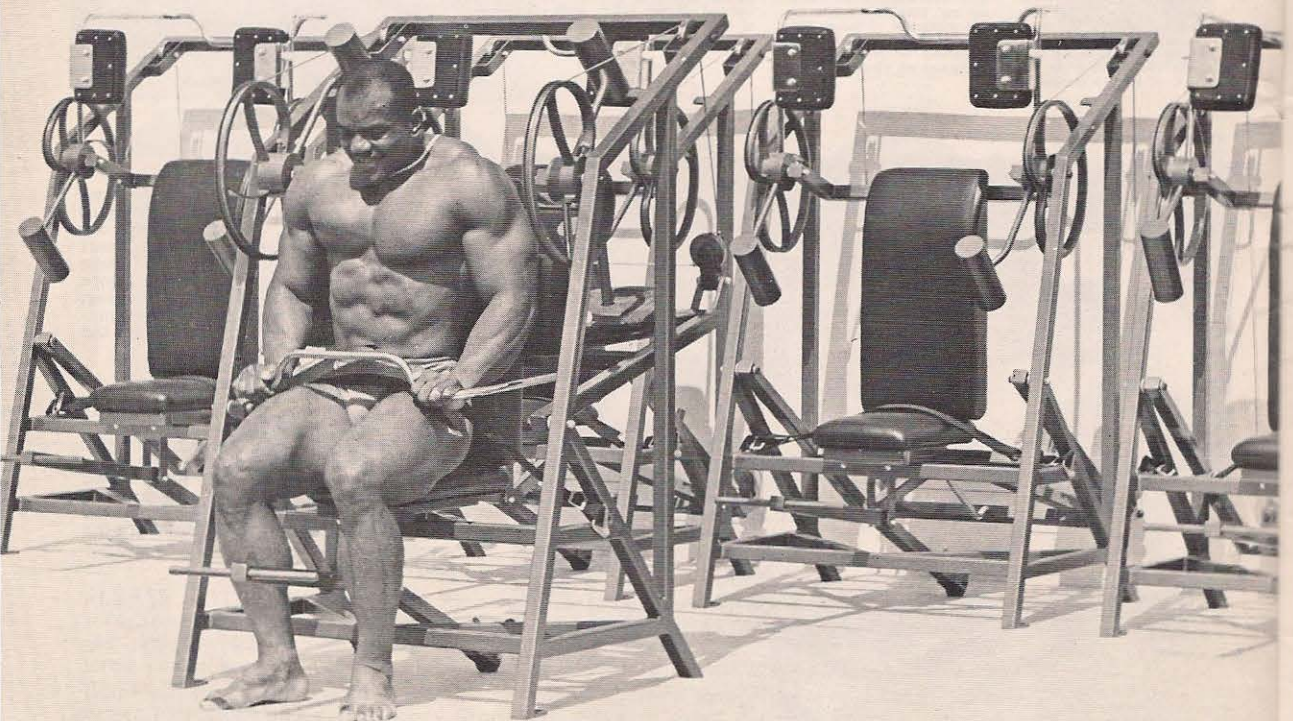
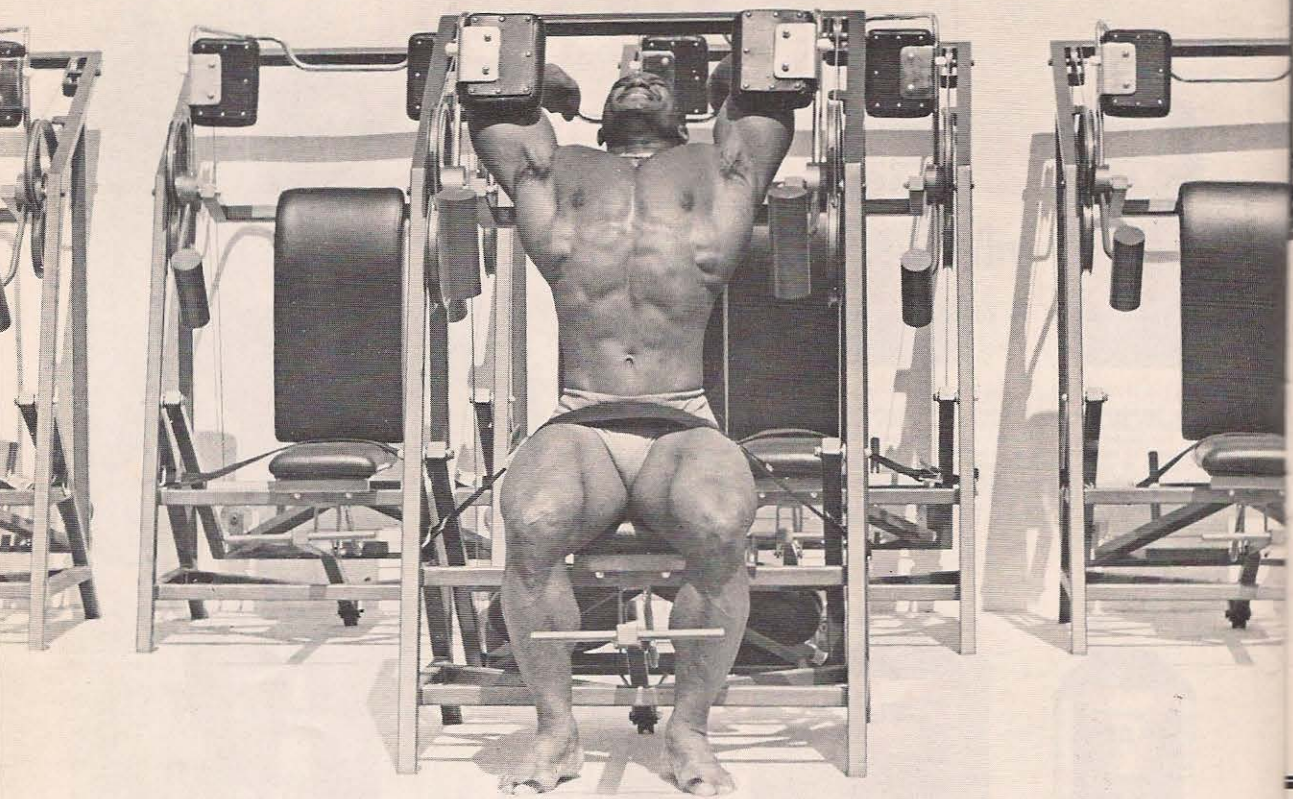
All prices F.O.B. DeLand, Florida, freight collect; Florida residents must add 4 per cent state sales tax. Prices subject to change without notice — but orders accepted at above prices will be delivered at these prices.

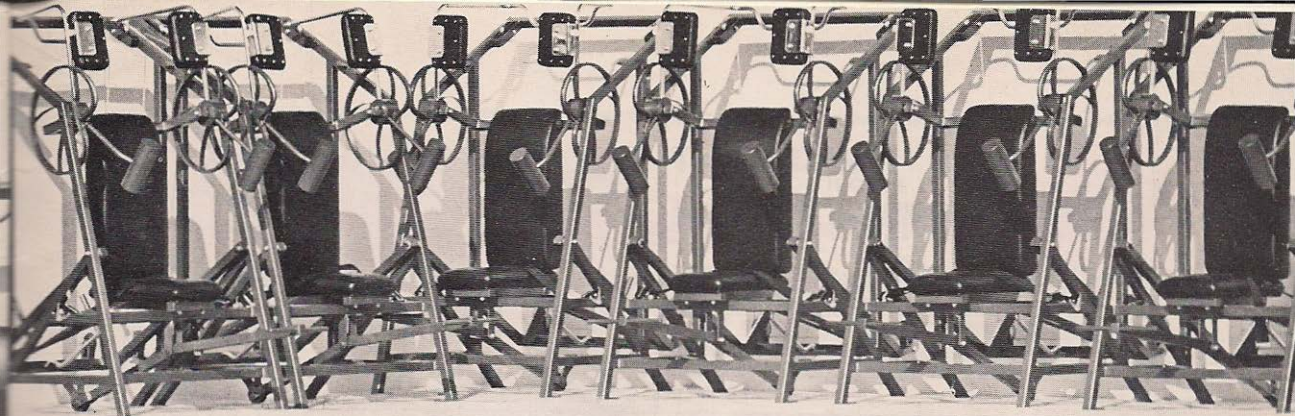
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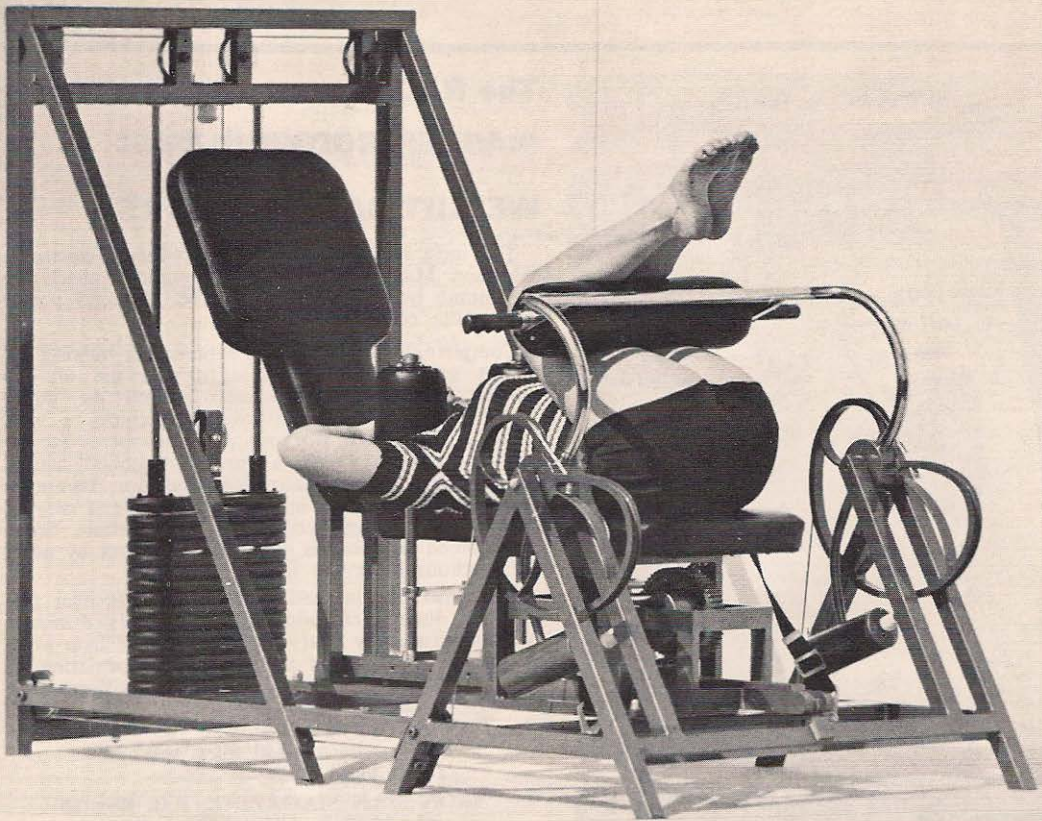
Nautilus Systems Torso Machines ready to ship.



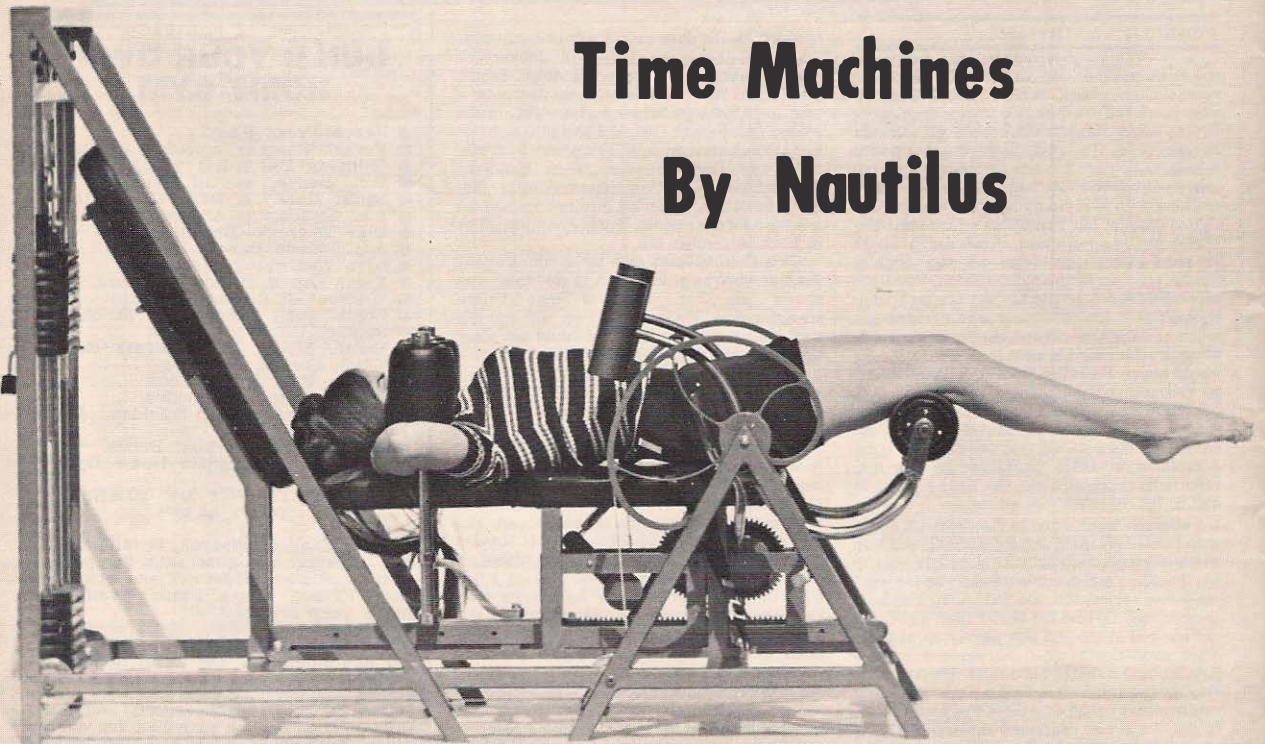


TIME MACHINES BY NAUTILUS

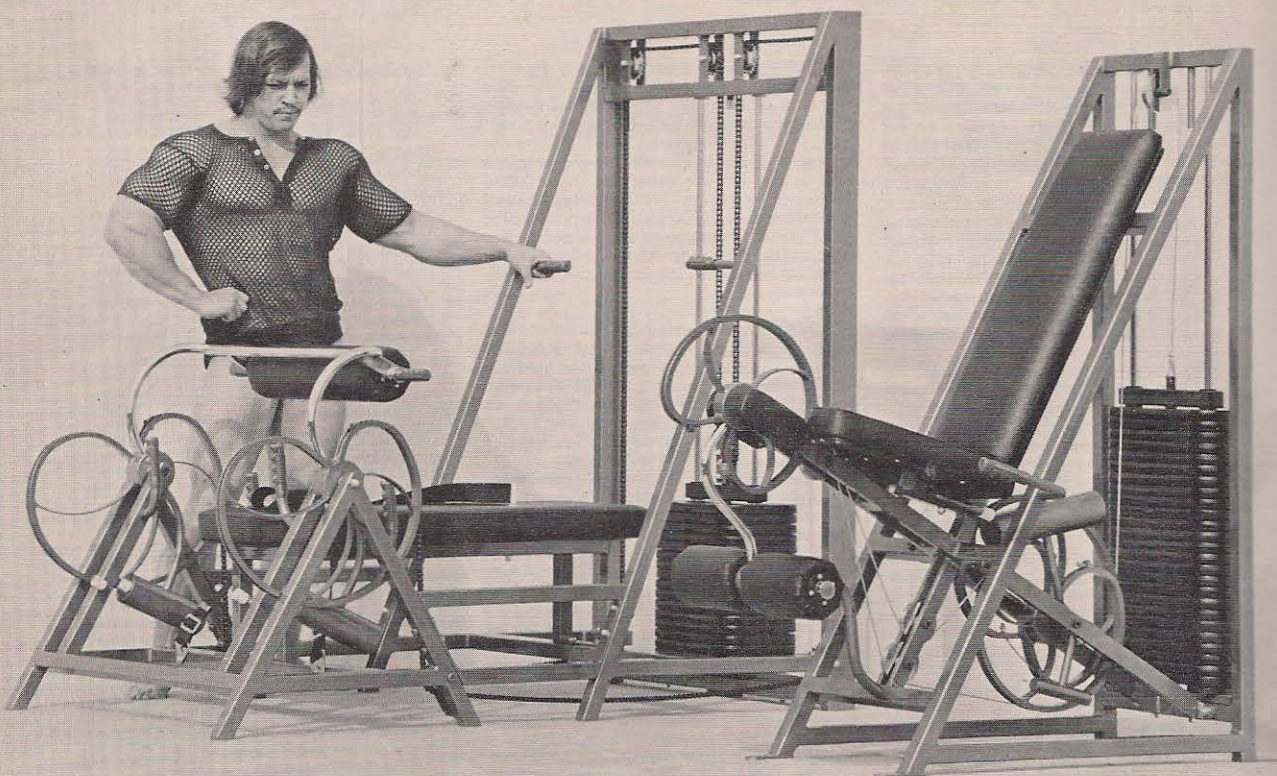
**PULLOVER-TYPE TORSO MACHINES
\$745.00 f.o.b. DeLand, Florida**



Time Machines By Nautilus



**Womens Deluxe Model Hip Machines
Reduce & Firm Buttocks and Thighs
Without Heavy Exercise for the Legs**



left to right: chain drive, selectorized Nautilus Hip and Back Machine; chain-drive, selectorized Nautilus Thigh Extension Machine.

NAUTILUS SYSTEM

presents . . .

A TOTALLY NEW APPROACH TO LEG AND BACK TRAINING . . .

Tired of Squats? Afraid of squats? Neglecting your legs and back because you just can't bring yourself to do squats?

Bodybuilders can now have all of the undeniable benefits of squats—**WITHOUT DOING SQUATS**, without the pain, without the danger.

Power-lifters and olympic lifters must still do squats — even if they do have the new Nautilus machines: apparently because it is easily possible to "forget how" to do squats — or, possibly "become afraid" of squats. Some of our test subjects have greatly increased their squatting strength in a short period of time **WITHOUT DOING SQUATS** — but other subjects, upon doing squats again for the first time after training exclusively on the new machines, did not do as well as we expected.

Based upon careful experiments with a limited number of test subjects, it now appears that some subjects literally become "afraid" of squats if they do not practice them on a fairly regular basis. The new squats — and the work provided by these machines is even better than the work provided by squats, far better: the machines provide full range work, squats do not — the machines provide "total" work, work involving practically 100 per cent of the fibers contained in the muscles you are trying to work and squats do not. Thus the work provided by the machines is even **HARDER**, far harder, than the work provided by squats; but the machines remove the pain of having the weight concentrated on a small area — and the machines remove almost all of the compression forces caused by the weight of a barbell pressing down on your spine — and the machines make it impossible to fall or drop the weight — and the machines make it impossible to go too deep and get stuck at the bottom. **ALL** of which is good, for anybody — and all of which is literally **PERFECT** for a bodybuilder: because, now, you can have the benefits of squats without the danger and discomfort. But, for a man who must do squats in competition, it is apparently necessary to combine the use of the machines with the actual practice of heavy squats.

The new machines will certainly increase the squatting strength of anybody — and strength is certainly the most important factor in squatting; but strength is not the only factor — next to strength, it may well be that confidence is the second most important factor, a man's belief in his ability.

Thus we feel that lifters should also practice squats — at least once a week, but probably not more than once a week. At the moment, we are conducting careful tests on a "twice weekly" workout schedule — most of our advanced subjects are training only twice each week, on Monday and on Friday. Two "full body" workouts covering the legs and back, the torso, the chest, the shoulders, and the arms, everything from head to foot.

It may be that we will later return to a "three times weekly" schedule of training — but up to this point it appears that we can produce better results from only two weekly workouts.

So bodybuilders, who don't care how much they can squat with so long as they can produce the benefits of squats, can now forget about squats entirely — bodybuilders can now produce even better results far more quickly, without the danger and without the discomfort of squats. And lifters — who must be concerned with their actual squatting ability — can greatly increase their squatting strength by using the new machines, but they must combine the use of the machines with the actual practice of squatting.

At the moment, most of our trainees are using only three machines for the purpose of leg and lower back training — these are the Nautilus Hip and Back Machine, the Nautilus Thigh Extension Machine, and the Nautilus Leg Curl Machine. The exact leg routine is as follows — first, one set on the Hip and Back Machine — second, one set on the Thigh Extension Machine — third, one set on the Leg Curl Machine. That completes one "cycle" — two such cycles are performed in each of two weekly workouts. With approximately three minutes of rest between cycles.

In the Hip and Back Machine, the trainee "works against time" — using a weight that will permit approximately fifteen full repetitions. he does as many repetitions as possible, as quickly as possible. We time the first ten full repetitions — and when the trainee can perform ten full repetitions in ten seconds, or less, then we increase the weight by twenty-five pounds. The trainee does NOT stop after ten repetitions, but we time only the first ten and base our progression upon the time required to perform the first ten reps.

Immediately after the completion of the set in the Hip and Back Machine — with absolutely no rest between exercises — the trainee starts a set on the Thigh Extension Machine, doing twelve full repetitions and two or three partial repetitions with as much weight as he can handle. Then we instantly reduce the weight by approximately one-third, and the trainee then does several more repetitions, to a point of absolute failure.

From the Thigh Extension Machine the trainee moves immediately to the Leg Curl Machine — and then does approximately twelve reps. to a point of failure. That completes one cycle — after three or four minutes of rest, a second such cycle is performed, and that completes the workout for the thighs and lower back.

For a bodybuilder — for ANY BODYBUILDER — that is all that is required. "more training" will NOT produce better results. But for a lifter, at least some heavy squatting must be performed. At this point we do not yet know exactly what schedule should be used by lifters — but we are working on a schedule that combines the use of the new machines with squats, and when the results of our present test programs are available they will be published in detail. These new machines certainly WILL add to the squatting strength of anybody — but we do not yet know just how to use them for best-possible results.

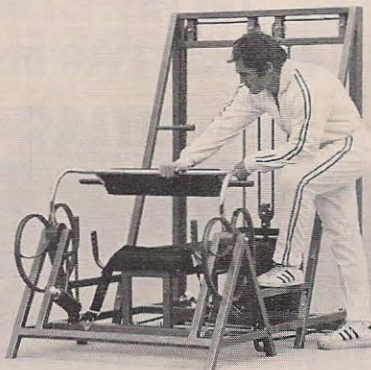
Hip and Back Machines are available NOW — in three different models for men; the "regular" model does not have self-contained weights, instead it uses a barbell-plate "weight basket," a weight basket that will handle any amount of weight up to 800 pounds of fifty pound barbell plates — the "selectorized" model has self-contained, plug-in type weights, 400 pounds of weights with a "stroke" of thirty inches, a total resistance of 1,000 foot pounds, exactly equivalent to lifting a thousand pounds a distance of one foot — the Super Deluxe model has the same self-contained, selectorized weight stack, plus additional deluxe features including a geared "entry and exit" shoulder-support.

The "function" of all three models is exactly the same — the only differences being those of convenience. All of these are big, heavy-duty, well-constructed, beautiful machines — and all of them carry the Nautilus TEN YEAR GUARANTEE for all metal parts except cables. If these machines fail in service for any reason short of outright abuse, we will fix them, or replace them — free of cost to the customer.

Regular model Hip and Back Machines, f.o.b. DeLand, Fla. \$880
 Selectorized model, f.o.b., DeLand, Fla. \$1,190
 Super Deluxe model, f.o.b., DeLand, Fla. \$1,640.

Above prices for machines picked up uncrated in DeLand, Florida. If machines must be shipped, add \$65. for crating expenses. Florida residents must add 4 per cent state sales tax.

Chain-drive, selectorized Nautilus Hip and Back Machine in finish position.



Any of the above machines can be purchased with "chain drive" for an additional charge of \$95. Chain drive eliminates the use of cables — making cable wear and cable replacement a thing of the past.

We STRONGLY SUGGEST that you order your machines with chain drive — while the function is the same with cable or chain, the chain will more than pay for itself within a short period of time. The chain used in these machines is large, strong chain with a test strength of 3,700 pounds, it should last in hard service almost literally "forever." The selectorized models of the Hip and Back Machines use more than 30 feet of heavy chain — as well as nine redirectional sprockets. If cable is used, then more than 30 feet of cable must be replaced each time the cable is replaced — with chain, if it ever does wear, then short segments can be replaced quickly and easily, instead of replacing the entire 30 feet.

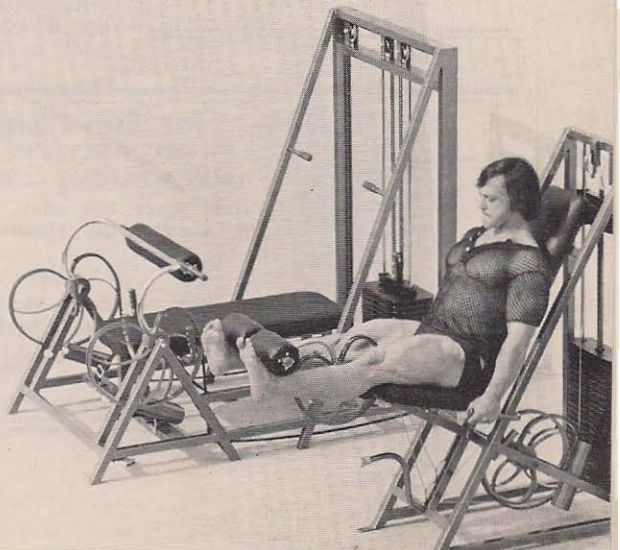
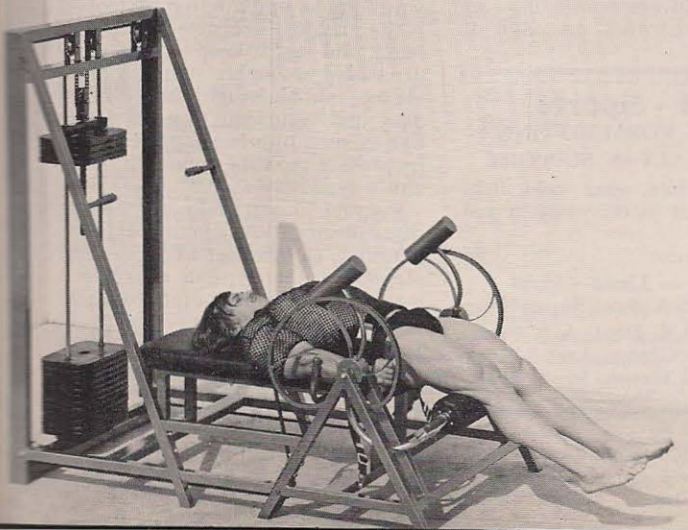
The totally new full-range, double-balanced Nautilus Thigh Extension Machines are also available NOW, f.o.b. De Land, Florida, (picked up in DeLand uncrated) \$780. Or, with chain drive, \$840. For machines that must be shipped, add \$55 for crating. These machines are available in selectorized models only — with 250 pounds of self-contained selectorized weights.

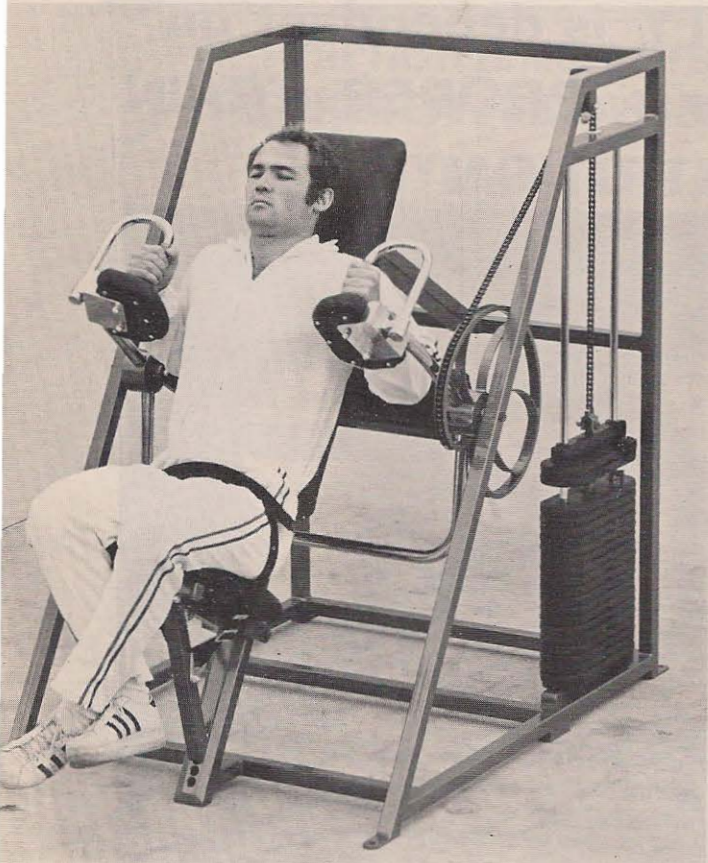
The full-range, double balanced Nautilus Leg Curl Machines are also available NOW, f.o.b., DeLand, Florida, (picked up in DeLand uncrated) \$735. Or, with chain drive, \$785. For machines that must be shipped, add \$55. for crating.

No amount of any other type of training will duplicate the results that can be quickly produced by the proper use of the above Nautilus Leg and Back Machines. Two weekly workouts of less than eight minutes each — or eleven minutes if you include resting time between cycles — will produce maximum possible results in almost all cases, and NOBODY should EVER perform more than three such weekly workouts under any circumstances.

ARTHUR JONES PRODUCTIONS
 P. O. Box 1783, DeLand, Florida 32720
 Phone area code 904-228-2884

Finish position of Thigh Extension Machine. Mr. America, Casey Viator, is the model.





Starting position of movement in new Nautilus Compound-position Triceps Machine.



Finishing position in Nautilus Compound-position Triceps Machine.

NEW ... from Nautilus

COMPOUND-POSITION ARM MACHINES

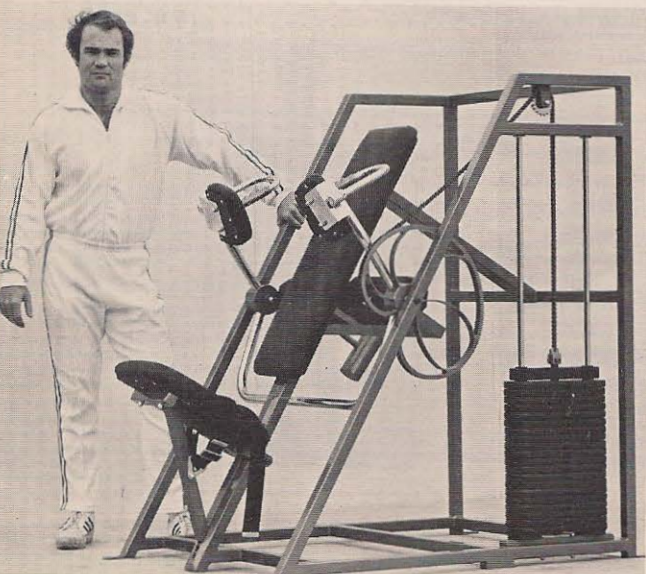
Already in use at Andy Gropp's Adam and Eve Spa in Trenton, New Jersey — at Scott Cooper's Nautilus Gym in Coral Gables, Florida — at Red Lerille's Health Studio in Lafayette, Louisiana — at the House of Shi-Boi in Clearwater, Florida — at Enterprise Sports System in Atlanta, Georgia — at Ron Peters' Nautilus Center in the Los Angeles area — at Ronny

Barnes Health Club in Greensboro, North Carolina — and at many other gyms and health clubs.

New, large, beautifully-made, super deluxe, heavy-duty, chain-driven, selectorized, adjustable **COMPOUND-POSITION ARM MACHINES** by **NAUTILUS** offer a number of features never before available in any type of machine.

NAUTILUS COMPOUND-POSITION TRICEPS MACHINE, f.o.b. DeLand (uncrated) \$980. Add \$55. for crating if shipment must be made. Florida residents add 4 per cent state sales tax — no tax on orders shipped out of state by commercial truck line.

This is the machine pictured — featuring adjustable seat for exact regulation of "movement-arm to seat" distance, chain drive, automatically-adjustable hand-grips for precise, automatic adjustment of "axis-of-rotation to grip" distance, self-contained, pin-selector, 200 pound weight-stack, quality chromed "movement arms" and "stabilization bar" made from very-heavy 1¼ inch solid cold-rolled steel, new, extra-heavy-duty upholstery material manufactured by U. S. Royal, precision alignment and oil-impregnated bushings for perfectly smooth operation and years of trouble-free use in hard ser-



The new Nautilus Compound-position Triceps Machine.

vice. Plus the "World's Highest Quality" of quality control — with Nautilus ten-year guarantee.

All of which is fine and good, quality of construction only to be expected from Nautilus — but what about function, the ability to produce results in the way of muscular size and strength increases? Insofar as "function" is concerned, these machines are beyond compare. They offer all of the revolutionary features of other Nautilus Machines — full-range resistance, double-direct resistance, balanced resistance, automatically-variable resistance, rotary resistance, omni-directional resistance — and they provide these features for the major muscular structures of the arms in the COMPOUND POSITION, the only position in which it is even possible to involve all of the fibers of any muscular structure in any form of exercise. In short, while other Nautilus arm machines are simply beyond comparison to any other form of exercise for the arms, these machines are even better.

They DO take a bit of "getting used to" — and you can reasonably expect for your arms to stay very sore for at least a week after your start using these machines — but you can also expect your arms to grow, and they will if you use the machines right and don't make the mistake of overusing them. These machines will work fibers in your arms that you have never worked before in your life -- fibers that can NOT be worked in any other manner. So they will quickly produce any

possible degree of development in the upper arms — but they must NOT be overused, since NOBODY can properly recover from more than three very-brief weekly workouts on these machines, and most trainees will usually make best gains from only two weekly workouts, short workouts. These machines do not make short workouts POSSIBLE — they make them NECESSARY.

Not shown, but also available now, the Nautilus COMPOUND-POSITION CURLING MACHINES, f.o.b. DeLand (picked up uncrated) \$860. Add \$55. for crating if machines must be shipped. Selectorized, deluxe, chain-driven, compound-position machines for the biceps.

AND — Nautilus COMPOUND-POSITION CURLING and TRICEPS MACHINES, f.o.b. DeLand (uncrated) \$1,740. Add \$65. for crating if shipped.

Above machines must be "sleeved" if they are used in a building with a door less than 42 inches wide. For "sleeving" add \$37.50.

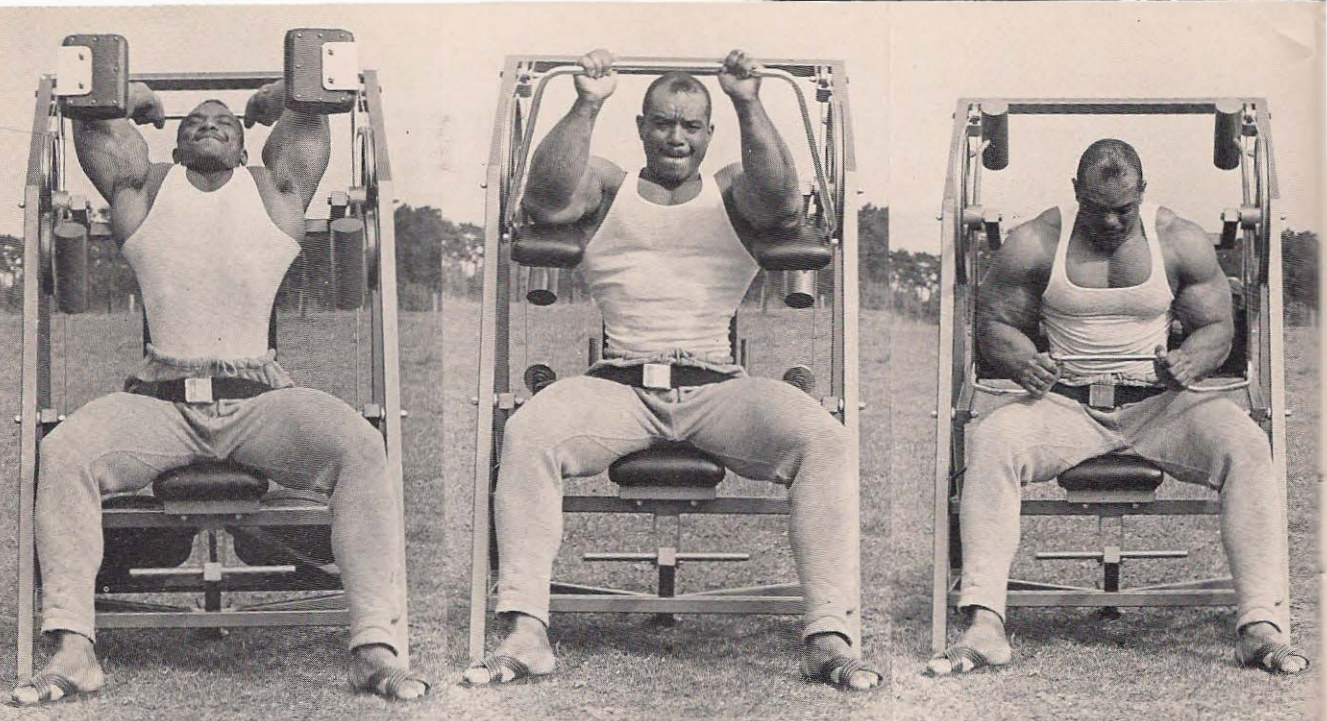
People on the West Coast interested in seeing and trying some of the latest Nautilus Machines can see and try them at the private gym of Don Peters, 10780 San Vincente, Lynwood, Calif. Phone No. 213-638-7058. This is a private gym and does not have memberships but you can see and try the equipment. Hours are from 2 p.m. to 8 p.m.

**NOW — See and Try the
NAUTILUS MACHINES in your area**



Several NAUTILUS MOBILES are touring the United States — appearing at athletic conventions and spa facilities. If you are interested in seeing and trying the Nautilus machines when they are in your area, drop us a card or give us a call. There is no cost or obligation.

**ARTHUR JONES PRODUCTIONS
Box 1783, DeLand, Florida 32720
Ph. area code 904-228-2884**

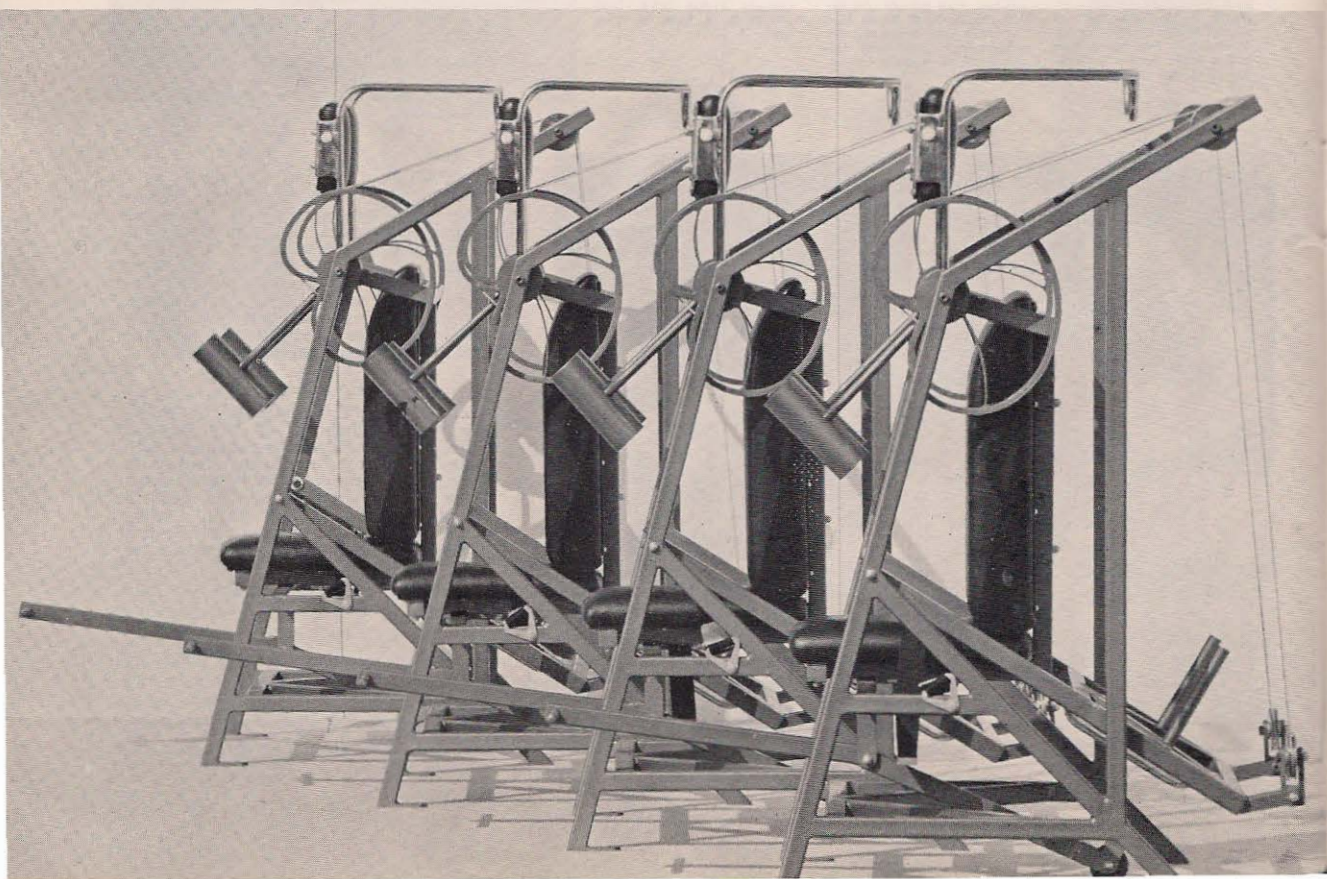


TIME MACHINES BY NAUTILUS

PULLOVER TYPE TORSO MACHINES

\$745.00 f.o.b. DeLand, Fla. Crating \$35.00 extra

The FIRST and BEST of the Nautilus Machines



TIME MACHINES

By NAUTILUS

You can NOT buy time — but you can waste it. You can NOT horde time — but you can invest it wisely. We can NOT sell you time — but we can help you make the best possible utilization of your training time, and we can help you reduce the “elapsed time” required to reach your goals, and we can enormously reduce your “weekly training time” WHILE PRODUCING BETTER FINAL RESULTS.

Why spend thirty hours a week in the gym, when you can produce FAR BETTER results from less than three hours of weekly training?

Why spend ten years reaching your bodybuilding goals when you can produce FAR BETTER results in a year or two?

If you are training for “maximum-possible” results, for a championship physique or strength, then there is no “easy” road to follow. Hard work builds muscular size and strength — the harder the work, the greater the results. But MORE work does not equal HARDER work — quite the contrary, while it is literally impossible to work TOO HARD, it is easily possible to work TOO MUCH.

Nautilus machines are designed to do only one thing, to provide the hardest work possible — as they must in order to produce maximum-possible results in the way of muscular size and strength increases.

Barbell exercises are better than “free hand” exercises for only one reason — because barbells make it possible to work HARDER than you can with non-weighted exercises.

So, until the introduction of Nautilus equipment, the barbell was by far the best exercise tool in existence — only and simply because it was the HARDEST exercise tool available. That being true, and it is true, then it should naturally follow that most people would use a barbell in the most productive manner — that is, in the HARDEST manner, using the heaviest, hardest exercises.

But in fact, how do most people use a barbell? Well — in most cases — they use a barbell in the EASIEST possible manner. So it takes them years to produce the results that they could have produced in months — and then the very few that finally reach the top call themselves “experts.”

You should — and you CAN — produce measurable progress from every single workout, and you will if you train properly. If your progress isn't constant, and fast, then you are training wrong — or sick, or overage, or already at the limits of your individual potential.

And how can you tell if you have reached the limits of your individual potential? Well — if you have NOT been using Nautilus equipment, then you have NOT reached the limits of your potential. Because, without

Nautilus equipment, you are NOT training all of your muscles — if you have been using barbells (or any type of equipment except Nautilus-equipment), then you have been training only SOME of your muscles, and only PART of your muscles. Spend two hours - or three days — pumping your arms as big as you can get them with conventional equipment; then wait two or three days and give us a chance to show you what you can do with Nautilus equipment — in seven or eight minutes you can pump your arms FAR LARGER than you can from any amount of conventional training.

Why? Simply because conventional exercises involve only PART of the muscles, DO NOT involve all of the fibers in your muscles — so you are pumping only part of the fibers in the muscles of your arms. No matter how many sets you do, you are still only working part of the muscles involved — and a small part, at that.

But — with Nautilus equipment — you are working a far larger number of fibers, almost literally every single fiber in all of the involved muscles. And, since FAR MORE fibers are involved in the exercises, the unavoidable result is a far greater degree of “pump” — and much faster growth, growth in areas that you have never worked before in your life.

Several factors are absolute requirements for working ALL of a particular muscle (any particular muscle), these requirements are — (1) full-range resistance, (2) constant resistance, (3) rotary resistance, (4) “double direct” resistance, (5) omnidirectional resistance, (6) variable resistance, (7) “balanced” resistance, and (8) “maximum-possible” resistance.

In barbell exercises you usually have NONE of those requirements — and you never have all of them. In Nautilus exercises you DO HAVE ALL OF THEM.

In spite of its limitations, a barbell is still a very good tool — but Nautilus equipment provides almost perfect tools, tools with none of the limitations of barbells, tools that involve ALL of your muscles, tools that provide HARDEST POSSIBLE exercises, exercises that are impossible in any other manner.

But if you are looking for an “easy” way to train, then look elsewhere — properly used, Nautilus equipment is certainly not “easy.”

Such HARDER exercises MUST NOT be overdone — if you attempt to use Nautilus exercises as much as many trainees use a barbell, then you may produce losses instead of gains; after all, you have only so much recovery ability, and when you are training ALL of your muscles instead of only part of them, then you are making much greater demands upon your recovery ability — so you must NOT overtrain with Nautilus equipment. Thus, if properly used, Nautilus machines not only make it possible to save time — they literally make “time saving” a requirement.

Advertisement

Nautilus—In Very Simple Terms

A total lack of exercise will quickly produce muscular atrophy — losses in muscular size and strength.

But in some cases, exercise will produce exactly the same results — losses in muscular size and strength.

Hard work — simple manual labor — seldom produces much in the way of muscular development, regardless of the amount of work that is performed. And “too much” manual labor will quickly produce actual losses in muscular development.

So it is obvious that at least some exercise must be performed to maintain or build muscular size and strength — and equally obvious that just any type of exercise is not enough.

So the problem, then, is reduced to the following terms . . . we must determine . . . (1) what type of exercise is required, (2) how much exercise should be performed, and (3) the most productive frequency of workouts.

Human muscular structures are capable of performing a literally enormous “amount” of work — if the pace is slow enough, and if the intensity is low enough. But no amount of such work will do much if anything in the way of producing unusual degrees of muscular size — and too much of such work will actually produce muscular losses. So we can dismiss the “amount” of work as a negative factor. Doing “more” is obviously NOT the answer.

But, at the same time, it is also obvious that “at least some” exercise is required — so the “amount” of exercise can never be reduced to zero. Simple logic thus dictates the direction in which we should search for the required answers — we should look for “the least amount of exercise that will produce the desired results.” Any exercise in excess of the minimum amount required will be wasted effort at best — and counter-productive at worst.

Of the three answers we are seeking, two of them will probably never be answered to the satisfaction of everybody concerned — it is highly unlikely that the “amount of exercise” and the “frequency of workouts” will ever be agreed upon, and there will, of course, be some room for variation on an individual basis. But the third question — the question of greatest importance — has already been clearly answered. The best “type” of exercise is Nautilus exercise — because it is the only type of exercise that provides all of the positive requirements, while keeping the negative requirements to an absolute minimum.

We have already noted that the “amount” of exercise is a negative factor — what, then, are the positive factors, the desirable factors?

Keeping in mind that exercise is “movement against resistance” — it is clear that both “movement” and “resistance” are requirements. Without movement there can be no exercise in the true sense of the word — and without resistance there can be no exercise in any sense of the word. Nautilus equipment provides resistance against “full range” movement — a requirement that is NOT provided by any other type of equipment.

Nautilus equipment also provides “rotary” resistance — another absolute requirement, since human muscular function results in rotary movement of the involved body parts. A type of resistance that is NOT provided by most conventional exercise equipment — and that is NOT provided properly by any type of equipment except Nautilus equipment.

Nautilus equipment likewise provides “double direct” resistance — the only type of resistance that is capable of involving the entire length of a muscular structure. A type of resistance that is provided ONLY in Nautilus equipment.

And Nautilus equipment provides “balanced” resistance — the only type of resistance that is capable of involving all of the mass of a muscular structure, all of the many thousands of individual muscular fibers. Many of which fibers are not involved at all in most conventional exercises.

Individual muscle fibers perform work by contracting, by reducing their length — which contraction produces a pulling force — which force produces movement of the related body parts.

So it should then be obvious that the simultaneous contraction of all of the individual fibers would unavoidably produce a maximum possible degree of contraction of the muscle as a whole — which would also unavoidably produce maximum possible movement of the related body part.

And when this is understood, it is thus obvious that it is impossible to involve “all” of a muscle in any position except that of full body-part contraction — in which position most conventional exercise devices provide no resistance at all, and thus provide no exercise.

Secondly, because of the manner in which individual muscle fibers work (the so-called “all or nothing” manner), it is also obvious that all of the fibers in a muscle will not be involved unless they are actually required. If a smaller number of fibers can move the resistance provided, then only the actually required number of fibers will be involved in any form of exercise.

Thus it is clear that there are two prerequisites for actually proper resistance . . . (1) resistance must be provided in the position of full contraction of the involved body-part (and thus in the position of full contraction of the muscle, as well), and (2) the resistance must be heavy enough to require the involvement of all of the available muscle fibers.

If the involved body-part has not moved into a position of full contraction, then all of the available fibers can not be involved, no matter how heavy the resistance is — and if the resistance is not heavy enough in the position of full contraction, then all of the fibers will not be involved. Without the proper position, all of the fibers CAN NOT be involved — without enough resistance, all of the fibers WILL NOT be involved.

Nautilus equipment — and ONLY Nautilus equipment — meets both of those requirements. Most types of conventional equipment don't provide either of them — and no type of conventional equipment provides both of them.

Nautilus equipment provides maximum resistance in every position — resistance that automatically increases or decreases as it must during the exercise movements. If you are stronger in a particular position during an exercise movement, then Nautilus equipment provides more resistance in that position — if you are weaker, then you encounter less resistance. But in every position you encounter the maximum amount of resistance that you can handle in that position — as you must for proper exercise. If the resistance was too light, then you would work only part of the total number of available fibers — if the resistance was too heavy, then you would be unable to proceed past that point in the movement, and again you would work only part of the muscles that you were trying to exercise. So the resistance must be “right” in every position — and with Nautilus equipment it is.

If you can “lock out” during an exercise movement, then that is clear proof that the muscles you are trying to work are NOT encountering any resistance in that position — in most barbell exercise, the lock-out occurs at the point of full contraction, the most important point in the exercise, the only point in the movement where it is possible to involve “all” of the muscle you are trying to work. This occurs in the squat, the leg press, the bench press, the standing press, the curl, and in almost all other barbell exercises.

But it does NOT occur in Nautilus exercises — you can NOT lock-out during the movement while using Nautilus equipment. Because there is resistance in all positions — if you want to hold the fully contracted position in a Nautilus exercise, then you must do so by muscular action.

In barbell exercises, there are points of little or no resistance — areas of the movement where you encounter far too little resistance, not enough resistance to involve all of the available fibers. And there are also areas where the resistance feels much heavier — so-called “sticking points,” places where the resistance is too high in proportion to other points during the movement.

Such points of little or no resistance, and such sticking points are NOT encountered in Nautilus exercises — because the exclusive Nautilus feature of “automatically variable, balanced resistance” always provides exactly the right amount of resistance, never too much, never too little.

During the last few weeks, I have repeatedly demonstrated the ability to “pump” my upper arms a full three-quarters of an inch (and sometimes a full seven-eighths of an inch) — from ONE set of ONE exercise. One properly performed set on a Nautilus Compound-position Triceps Machine — with no other exercise at all, and with no exercise of any kind for the biceps.

Such results are possible because Nautilus equipment involves almost literally “all” of the fibers contained in the muscles being exercised — and such results are literally IMPOSSIBLE with any other type of equipment, because no other type of equipment involves the use of anything even close to the same percentage of available fibers.

We do not even pretend to know just “how much” exercise is best — but most of our current trainees are training only twice each week, and usually for less than thirty minutes during each workout. None of our trainees are training more than three times weekly, nor more than an hour during each workout. It may well be true that some trainees can “stand” more training than that — but we are beginning to believe that most trainees will produce the best possible degree of results from even less training.

Many bodybuilders will at first find the above facts hard to accept — and this will be particularly true in cases where they have been habitually training five or six days a week and for three or four hours during each workout. But in the meantime, many thousands of other trainees have already discovered that they can produce far better results from a small fraction of their previously-practiced training schedules.

During the last twenty years, a large number of trainees seem to have devoted most of their attention to attempts to determine how much exercise they can stand — now we are trying to determine how little exercise is actually required, and while an exact answer is not yet available, a general answer is obvious . . . “NOT MUCH.” Not, at least, if it is Nautilus exercise. TIME MACHINES . . . by NAUTILUS.

ARTHUR JONES PRODUCTIONS
P.O. Box 1733, DeLand, Florida 32720

Nautilus News . . .

Nautilus Sports Systems of Oklahoma, Inc., proudly announce the opening of a new training facility and showroom at 776 Jenkins Street, Thorstenburg Plaza, in Norman, Oklahoma. Phone area code 405-364-3007. See and try all the latest Super Nautilus Machines.

Bill Andrews' Sports Therapy Clinic at 2625 N. Decatur Road in Decatur, Georgia (greater Atlanta), is now conducting special Nautilus training courses for several hundred Atlanta-area athletes.

Enterprise Sports System, Suite 2, Lower Level, 215 Copeland Road, N. E., Atlanta, Georgia, is now conducting all types of Nautilus training programs.

Shi Boi Health Spa, 920 S. Myrtle Ave., Clearwater, Florida, is open for Nautilus training six days a week. Phone area code 813-442-9686.

Harry Schwartz has added a full line of the latest Nautilus Machines to some of his Jack LaLanne Health Clubs in the greater New York area.

Ray Maurich (Jack LaLanne of California) is now using all of the latest Nautilus Machines in his Los Angeles clubs.

Sam Loprinzi of Portland, Oregon, is adding several of the Nautilus Super Machines to his famous Spa.

Chicago Health Clubs have already established a full line of Nautilus machines in their Chicago clubs and are also obtaining Nautilus equipment for their clubs in Miami, Los Angeles, and other areas.

Hank Breaker of Houston, Texas, is opening a new Nautilus training facility in the near future.

Other Nautilus clubs are being opened in almost every state in the union, and in several foreign countries. The Cincinnati Bengals Professional Football Team is training "all Nautilus" in the finest-equipped gym in the world, with all of the Nautilus Super Machines. The Bone and Joint Clinic of Shreveport, Louisiana, has opened a special Nautilus equipped training facility for athletes — under strict medical supervision by orthopedic surgeons.

Dick Wall — formerly with Paramount Equipment Company of California — has now joined the Nautilus staff in Florida and invites his hundreds of friends in the health-club field to contact him here. With approximately twenty years of experience in the exercise equipment field, Dick is a valuable addition to our staff.

Upon completion of the buildings now under construction, we will have a total of approximately 35,000 square feet of buildings devoted exclusively to the manufacture of Nautilus equipment — within a year, we will have in excess of 100,000 square feet of building space in one location (Florida), and at least two other plants located in other states.

**ARTHUR JONES PRODUCTIONS,
P.O. Box 1783, DeLand, Florida 32720**



Boyer Coe in Compound Machine

NAUTILUS EQUIPMENT

REGULAR MODELS (Barbell-plate loading)

		Crating
PULLOVER-TYPE TORSO MACHINE	\$745.	\$35.
With chain drive	\$805.	\$35.
BEHIND-NECK TYPE TORSO MACHINE	\$615.	\$35.
TORSO-ARM MACHINE	\$485.	\$35.

The above listed three machines are the basic equipment required for the remarkably effective Nautilus "Torso Cycle" training system.

ROWING-TYPE TORSO MACHINE (Shoulder & Chest) ...	\$615.	\$35.
CURLING & TRICEPS MACHINE (Arms)	\$825.	\$35.
With chain drive	\$860.	\$35.
"Sleeving" charge required if machine must go through a door that is less than a full 37" wide	\$ 22.50	
HIP & BACK MACHINE (Lower torso, lower back, legs) ...	\$880.	\$65.
With chain drive	\$975.	\$65.

DELUXE MODELS — Selectorized (self-contained) weight stacks, and chain drive in all machines where chain drive is possible. Rowing, Torso-Arm and Behind-Neck type machines can NOT be chain driven — all other deluxe model Nautilus Machines are chain driven.

BEHIND-NECK TYPE TORSO MACHINE	\$860.	\$35.
TORSO-ARM MACHINE	\$685.	\$35.
ROWING-TYPE TORSO MACHINE	\$860.	\$35.
HIP & BACK MACHINE	\$1,285.	\$65.
THIGH-EXTENSION MACHINE	\$840.	\$55.
LEG-CURL MACHINE	\$795.	\$55.

SUPER NAUTILUS MACHINES — Selectorized (self-contained) weight stacks, chain drive in all machines and "double-chain drive" in all machines where extreme heavy-duty function is involved, and many other super-deluxe features. The ultimate in exercise equipment.

		Crating
SUPER PULLOVER-TYPE MACHINE	\$1,490.	\$85.
COMBINATION PULLOVER & TORSO-ARM MACHINE	\$2,180.	\$85.
COMBINATION BEHIND-NECK & TORSO-ARM MACHINE	\$1,920.	\$85.
DOUBLE-CHEST MACHINE	\$1,940.	\$85.
DOUBLE SHOULDER MACHINE	\$1,890.	\$85.
DOUBLE-BACK MACHINE	\$1,920.	\$85.
COMPOUND-POSITION TRICEPS MACHINE	\$890.	\$65.
COMPOUND-POSITION CURLING MACHINE	\$860.	\$65.
WOMEN'S GEARED HIP & BACK MACHINE	\$1,620.	\$65.
MEN'S GEARED HIP & BACK MACHINE	\$1,735.	\$65.
SUPER HEAVY-DUTY GEARED HIP & BACK MACHINE	\$2,860.	\$125.
SUPER HEAVY-DUTY LEG MACHINE	\$1,285.	\$65.
LEG & LOWER-BACK MACHINE	\$5,680.	\$210.

Prices f.o.b. DeLand, Florida — crating charges must be added for machines that must be shipped. Florida residents add 4 per cent state tax. All orders accepted on a "first come, first served" basis only — full payment with order, or 50 per cent deposit and balance prior to shipment.

All orders will be filled as quickly as possible, but there is no "off the shelf" inventory available for immediate shipment since demand still exceeds supply. Above prices will be honored until September 1st, 1972, on all firm orders placed prior to that date — at which time, new and higher prices will become effective. Quickest-possible delivery can be assured by placing orders by phone, followed by mailed confirmation and deposit.

ARTHUR JONES PRODUCTIONS, P. O. Box 1783, DeLand, Fla. 32720
Phone — area code 904-228-2884

Super Nautilus Machines...

Two years ago, the only Nautilus Machines in existence anywhere in the world were in the high school gym in DeLand, Florida, or in use by people conducting independent research programs with our equipment. NOW, Nautilus Machines are in use in hundreds of gyms — and a large number of exclusively Nautilus-equipped gyms are being built all over the country, and in several other countries.

Less than nineteen months ago (in late November of 1970), the first Nautilus Machine was delivered to a customer. NOW (June 14, 1972), we are delivering more than a hundred each month. Within a year, we hope to be delivering at least a thousand Nautilus Machines every month — and we will, if we can enlarge our production facilities that rapidly.

During the last nineteen months our production facilities have grown enormously. At the moment we are constructing two new buildings, one with 10,000 square feet of space and another with 3,750 square feet — when these are completed, we will have a total of approximately 35,000 square feet of buildings devoted exclusively to the manufacture of Nautilus Machines. All of which buildings are located on our own land — a total area of six square blocks in one piece; enough land to allow almost unlimited growth.

So we are growing — and we will continue to grow as rapidly as possible. But our growth has not been restricted to the size of our plants or the number of employees — one of the most important areas of our growth has involved the Nautilus Machines themselves. By comparison to some of the machines that we are manufacturing now, the first models were very, very simple.

The very first Pullover Machine ever built is still in service — and it still works perfectly, doing the job it was designed to do and doing it well. But in the meantime, we have learned how to build even better machines — better, at least, in the sense that they should last in hard service almost literally "forever." And that is our goal — it is our sincere desire to build machines that will NEVER give trouble, that will continue to perform in hard service for year after year with no slightest problems.

During the last nineteen months we have been literally swamped with orders, and we have never quite been able to catch up — and under such circumstances, some people might have been tempted to forget about quality and devote all of their attention to building machines as quickly as possible. Instead, we have repeatedly delayed our production in efforts to improve the quality of the machines in any way that we could. The actual "function" — the ability to stimulate muscular mass increases — has remained unchanged; present models of the basic Pullover Machine "work" exactly the same as the first model did.

Which is NOT meant to imply that the function is literally "perfect" — it is NOT perfect, but it is as close to being perfect as it can be. Nautilus Machines — like everything else on earth — involve some compromises; if we could build machines without consideration for such factors as cost, size, weight, convenience, safety, etc., then we could manufacture machines that were literally perfect, or so close to being perfect that any slightest difference wouldn't matter. But in practice, we must consider such factors.

The very first Pullover Machine that we built for our own use was perfect — or, if not, it was so close that we could detect no measurable loss of function; but it weighed more than 2,000 pounds — it was eleven feet long and seven feet tall — it cost us nearly \$15,000.00 to build — and it took two other people to help the trainee into and out of the machine. So it was certainly very close to being perfect — but it just as certainly was NOT practical. Obviously, then, certain compromises were called for in a production model.

The first model offered for sale was actually model number 27 — it took that many attempts to produce a model that we were satisfied with; and in the meantime, the appearance, the size, the weight, the cost, and many other factors were drastically changed — and even the function was changed to some degree, as it had to be under the circumstances. So the end result of all these changes was a machine that was no longer perfect — but a machine that was practical.

One of the unavoidable compromises that affected the function of the machine concerned the problem of getting a trainee into and out of the machine. In the first big 2,000 pound model that we built for our own use we just ignored that problem entirely — in that machine, a trainee required the assistance of two other strong men to help him get into the machine; then, when a set had been completed, the trainee was "stuck" in the machine until and unless somebody rescued him — it was impossible to get into the machine without assistance, and it was equally impossible to get out of the machine unaided.

BUT a machine with that problem simply was NOT practical as a production model; so, in effect, we had to design a "door" into the machine — an "entry-exit" device, a means of easily getting into and out of the machine without help from other people.

So we incorporated a "foot pedal" device into the Pullover Machine. By using the strength of the leg muscles it then became possible to easily enter and exit the machine. Sit down, fasten the seat belt, push on the foot pedal with your feet — and the "movement arm" of the machine rotates forward, bringing the elbow pads into a position where it is easy to start the exercise.

When a set is completed, you simply reverse the process — instead of being stuck in the extreme rear position, and being forced to call for

help, you push on the foot pedal again; this removes the resistance, the elbow pads rotate forward, and it becomes easy to get out of the machine unaided.

So the addition of the foot pedal made the machine far more practical, and much safer — since it was no longer possible to get stuck in the rear position when exhausted. But these necessary improvements were purchased at the price of an unavoidable reduction in the function of the machine. Because, the only practical method of rotating the movement arm forward involved eccentric counterweighting — and to the degree that the counterweights were "out of balance," the function of the machine was reduced.

Pushing on the foot pedal permits the movement arm to rotate, by removing the resistance of the weight basket which was previously holding it in its extreme rear position. But "being free to rotate" does not cause movement — an additional force must then act upon the movement arm in order to produce the desired rotation.

Since there is no direct link between the foot pedal and the movement arm, moving the foot pedal does not actually "move" the movement arm — instead, pushing on the foot pedal "makes it possible for the movement arm to move." In effect, the foot pedal unlocks the movement arm — removes the resistance from it.

So then the movement arm "can move" — but it "won't move" until and unless some other force causes such movement.

This required force is provided by the counterweights — or, in fact, by "part" of the counterweights, the "extra part."

The primary function of the counterweights is to balance-out the mass of the movement arm — and for perfect function, the mass of the counterweights would exactly balance the mass of the movement arm. In which case the movement arm would effectively weigh literally "nothing," would be perfectly balanced, would have no tendency to rotate by itself, would remain still in any position in which it was placed.

So most of the mass of the counterweights is required to balance the mass of the movement arm — but in addition to that required mass, we were forced to add more weight to the counterweights; which "extra" weight served the purpose of providing the force required to rotate the movement arm into a position where easy entry and exit became possible.

The result being that it was now possible to get into and out of the machine easily, safely, and without help — but a secondary result was a certain degree of unavoidable loss of function. Because the extra mass of the counterweights removed some of the resistance at the start of the exercise — and added resistance at the end of the exercise. Thus making the resistance slightly "too light" at the start — and a bit "too heavy" at the end.

Thus the function of the machine was no longer "perfect" — but it was, at least, "practical," usable, and safe; and the unavoidable reduction in function was of no great magnitude, the function of the machine wasn't ruined — it simply wasn't perfect.

An automobile would be far safer, much stronger, and less expensive — if it had no doors. But it wouldn't be very practical. The addition of doors to an automobile increases the cost, increases the danger, and reduces the strength — but the doors make an automobile practical; and a practical automobile that isn't quite perfect is far better than a perfect automobile that can't be used. Like the manufacturers of cars, we were forced by practical considerations to build a "door" into the Pullover Machine.

But by nature, I am a perfectionist — so for the last year I have been trying to design a Pullover Machine that is "practical" and "perfect" — a machine without compromise. And now, such a machine is a reality, a model of the Pullover Machine with no compromise in function, a machine with perfect function AND convenience, AND safety. Unavoidably, such machines are somewhat larger, heavier, and more expensive than the regular model of the Pullover Machine. They must be, in order to incorporate the features that make a marriage of perfect function and practical design a reality.

The Super Pullover-type Machine has a foot pedal mechanism that does directly drive the movement arm — instead of simply removing the weight from the movement arm and "permitting" movement, it actually and directly "drives" the movement arm. Thus no compromise is required in the counterweights and no loss of function is involved.

When you press on the foot pedal you are directly driving the movement arm and forcing it to rotate forward into a position where entry and exit is easy and safe. Which movement is produced by a closed-circuit, double-chain drive built from very heavy double-sprockets and double-chain with a strength of 7,400 pounds — and is made from solid, cold-rolled, chromed steel. The overall weight of all of the parts contained in this drive unit is well in excess of 100 pounds — all of which parts are precision made and so strongly constructed that they are almost indestructible.

AND — the design is such that while the foot pedal drives the movement arm, the movement arm does NOT drive the foot pedal. In effect, the foot pedal works only when you want it to — and does NOT work when you don't want it to. The foot pedal does NOT move during the exercise movements — moving the movement arm throughout the full range of the exercise movements has no effect on the foot pedal — which remains still during the exercise.

You sit down in the machine. fasten your seat belt, push your feet against the foot pedal. the movement arm rotates around into a position where you can easily and safely place your elbows on the pads — then you release the pressure of your feet against the foot pedal. the resistance returns to the movement arm instantly and automatically, and the foot pedal returns to the "up" position and remains there during the exercise. ready for use again when the exercise is finished. Since there is no compromise required in the counterweighting, the movement arm of this machine is perfectly balanced — if the resistance is removed, the movement arm will remain in any position in which it is placed, perfectly balanced. Thus the automatically variable, balanced resistance provided by the special Nautilus "spiral pulley" (or cam) is not affected — and the resistance is always exactly what it should be, without compromise.

But perfect function is not the only important new feature in this machine — when we decided to build a machine "without compromise" we meant exactly that, so we have added every single feature that we could think of that would improve the machine. Selectorized (self-contained) weight stacks, chain drive, "free swivel" hand grips that make it impossible for the trainee to involve the bending muscles of the arms in the exercise, and overall construction features that should make this model of machine last almost literally "forever." The result is a big, heavy, rugged but beautiful machine — WITHOUT COMPROMISE, literally a "SUPER" machine, a Super Nautilus Machine.

So far, so good — but we decided to go even further, and we did. We are also building Combination Super Pullover-type Torso Machines and Torso-Arm Machines. Using the new Super Pullover Machine as a starting point, we added another complete machine to the same structure — and the result is far from being simply a "two exercise" machine. The combination afforded by joining these two machines made it possible to perform a type of exercise that is literally IMPOSSIBLE in any other fashion — with results that must be experienced to be appreciated.

Prior to the introduction of this new compound machine, we used the same two movements as the basic part of our torso cycle of exercises — but it was then necessary to use two different machines. First we performed a set on the Pullover Machine, and then immediately followed this by a set on the Torso-Arm Machine, or at least we tried to perform the second exercise "immediately." But, in practice, this proved to be impossible.

For best results while using the "pre-exhaustion" principle of training, you should perform a direct isolation exercise first and carry it to the point of failure — then, as quickly as possible, you should start a similar compound movement for the same muscular structures. The first exercise "pre-exhausts" the muscles you are trying to work — and then the second exercise brings into play other muscular structures which lend enough assistance to make it possible to work the primary muscles to a point actually beyond their normal point of failure.

In our torso cycle — using two machines — we pre-exhausted the torso muscles with direct exercise on the Pullover Machine, then followed with a set of compound movements on the Torso-Arm Machine — bringing into play the strength of the arms in order to permit the exhausted torso muscles to work beyond the normal point of failure.

But the problem — and it really is a problem — comes from the fact that the second exercise should be started IMMEDIATELY after the completion of the first movements. For maximum results, the second set should be started not more than three seconds after the first set is finished — which is simply impossible to do when using two separate machines; because you can't get out of the first machine and into the second machine in that short a period — in practice, it was taking eight or nine seconds, or longer. Far too long for best results.

So we knew that combining the two machines into one frame in such a manner that the two exercises could be done with almost no delay between sets would increase the production of results — but even that knowledge didn't fully prepare us for the real thing. When these two extremely productive exercises can be done rapidly, "back to back," with an almost zero delay between sets — then the result is almost unreal. Our top trainees are performing only one such "double set" in each of two weekly workouts — and producing even better results than we were getting from more training using the same two exercises but with an unavoidably longer delay between sets.

In fact, we are now beginning to suspect that two such double sets — two double sets a week — are actually too much; so, at the moment, we are performing only one of these double sets to the point of failure — stopping one or two repetitions short of a point of failure during the other weekly double set.

In the Super Nautilus Compound Pullover-type Torso Machine and Torso-Arm Machine, the same weight stack is used for both exercises — and the same amount of weight is used for both exercises; it is not necessary to change the selected weight between sets — if you use 200 pounds for the pullover movements, then you will also use 200 pounds for the pulldown movements, and the weight will always be "right" in the second exercise if it was correct in the first exercise.

"But," you might ask, "I'm not as strong in the pulldown as I am in the pullover — and certainly not immediately after doing a hard set of the pullover movements?"

Perfectly correct — you aren't as strong in the second exercise; but you can still use the same amount of weight — because the machine automatically reduces the "stroke" of the exercise during the pulldown movements, so you are using the same number of pounds but you are not moving it as far, and thus the effective resistance is less, reduced by exactly the right amount.

Total resistance available in the selectorized, self-contained weight stack? 300 pounds — with a stroke of a full 3 feet, a total of 900 foot-pounds of resistance, more than enough resistance for anybody. With a maximum "torque" of 250 foot pounds — as much torque as the average automobile engine can produce; again, more than enough torque for anybody.

Chain drive throughout — with double-chain drive in the "get in, get out" foot-pedal mechanism. Main axles consisting of ¾ inch diameter shoulder-bolts of hardened steel — with both ends mounted in solid steel supports — rotating accurately in self-lubricating, oil-impregnated, porous-bronze bushings. The entire machine is engineered and built to strength specifications far beyond the strength of the strongest man who ever lived — and it is big enough to handle a seven foot man, but usable by a five foot woman. And it WILL go through a normal-width (32 inch) door without modifications.

We are still building — and we will continue to build — the regular model Pullover-type Torso Machine; and, now, we are also building the Super Nautilus Pullover-type Machine; but the finest machine in existence, the machine that we believe is literally the "Ultimate Development" for building the major muscular structures of the upper torso, is the Super Nautilus Compound Pullover and Torso-Arm Machine. It is a machine "without compromise."

Lack of space prohibits a detailed description of the other types of new Nautilus Super Machines — but we are also now producing similar machines for most of the other major muscular areas of the body; all of which compound machines incorporate exactly similar principles applied to other exercises — these compound machines are the Nautilus Double-Chest Machine, the Nautilus Double-Shoulder Machine, and the Nautilus Double-Back Machine. Other — "non-compound" — Super Nautilus Machines are the Super Leg Machine, the Super Hip and Back Machine, and the Compound-position Curling and Triceps Machines.

Because of a flood of orders for the earlier Nautilus Machines, and because of our still-limited production facilities, we can produce the Super Nautilus Machines in limited quantity only — and these will be delivered on a strict "first come, first served" basis. Only a certain number of these Super Machines will be manufactured during the next year — our present plans call for building 100 (one hundred) of each of the Super Machines within the next year, and quite a number of these are already spoken for. As of this date (June 14, 1972), all of our production capacity for these machines is already booked fully until the middle of September, 1972 — and, by the time this ad appears in print, it is unlikely that we will be able to accept orders for delivery prior to October of 1972; so there is as yet no possibility of "off the shelf" sales — and it is likely that delivery times will get slower before they get faster.

Prices quoted elsewhere in this same issue of Iron Man will be honored on all orders placed before September 1st, 1972 — at which time prices will be adjusted upwards. But machines ordered before that date will be delivered at prices listed in this issue — regardless of actual later delivery dates. Machines ordered on or after September 1st will be priced according to the then current, higher price schedule — without exception.

The earlier models of Nautilus Machines are still available and are simply beyond comparison to any other type of exercise device in existence — the Super Nautilus Machines are even better. The Ultimate Development.

Arthur Jones Productions
P.O. Box 1783, DeLand, Florida 32720



RIVERFRONT STADIUM . CINCINNATI, OHIO 45202 . 513 / 621-355

September 14, 1972

Mr. Arthur Jones
Arthur Jones Productions
P. O. Box 1783
DeLand, Florida 32720

Dear Arthur:

In order to set the record clear for possibly interested parties, I would like to briefly recap the history of our involvement with Nautilus equipment.

I initially came across the Nautilus training system in a copy of Iron Man Magazine. It seemed to make sense so I made several lengthy visits to DeLand with our trainer and defensive line coach. We came to the unanimous decision that it did work and that the Bengals should buy the full line which was delivered in due course.

Three months have passed since the Bengals began using Nautilus equipment. The results have ranged from meaningful to dramatic. The Bengal players very simply are stronger, more muscular and less fat than when they started.

It was at this stage in time that I bought the franchise for the state of Ohio. I believe very strongly in the future of Nautilus equipment. Overwhelming as it may sound at this moment in time, there is zero question in my mind that the entire world will soon discover the extreme worth of Nautilus concepts and value them as seriously as I do.

Arthur, I am delighted to be associated with you.

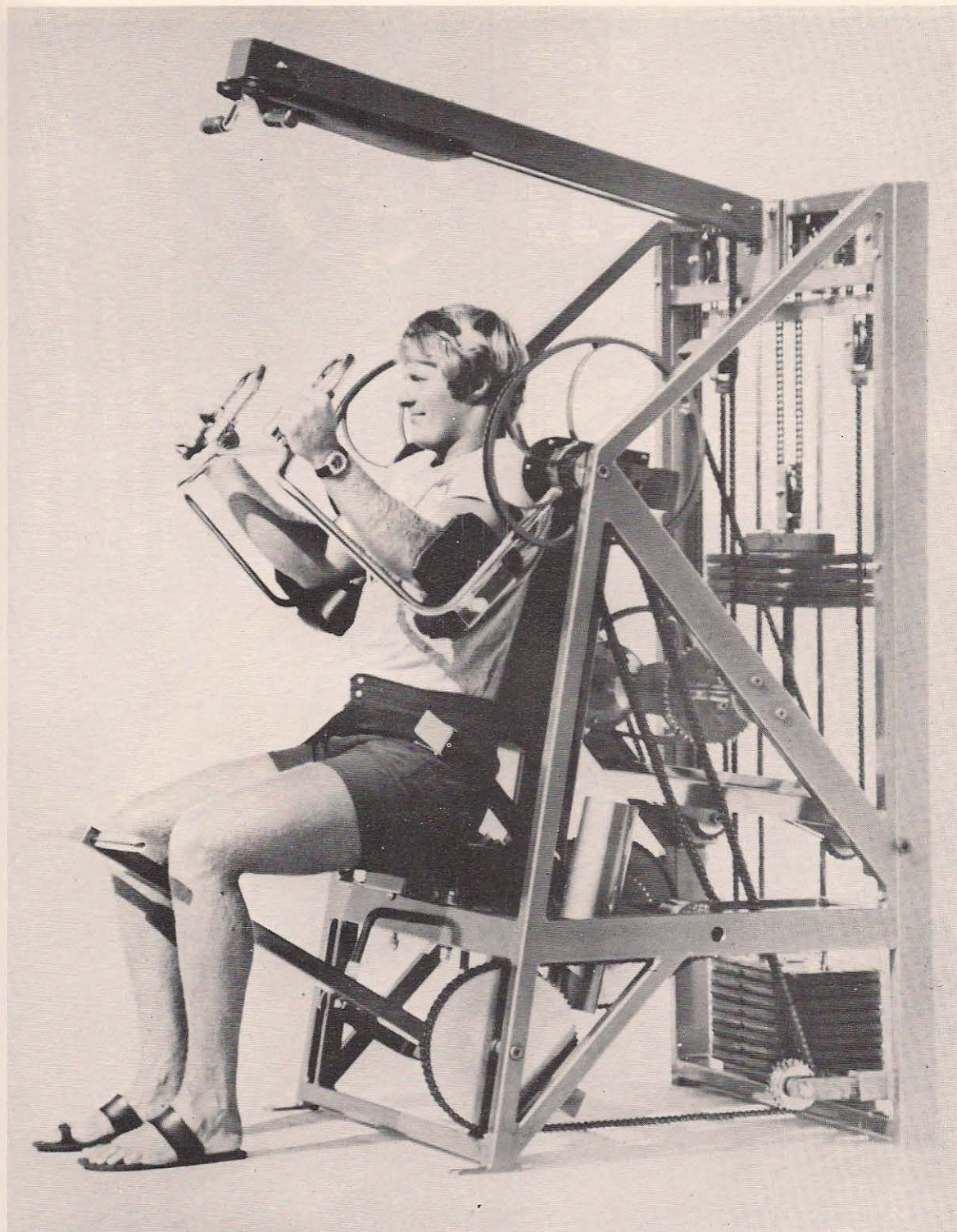
Sincerely,

Pete Brown
Director of Player Personnel

PB/cl

**The Miami Dolphins pro football team have purchased
and are now using Nautilus Machines**

Now turn to pages 52 & 53 for more on Nautilus



**Quarterback Greg Cook of the Cincinnati Bengals
in a NAUTILUS Compound Pullover Machine**

Mr. Arthur Jones
P. O. Box 1783
DeLand, Florida 32720

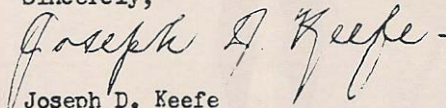
Dear Mr. Jones:

Welcome this opportunity to congratulate you for inventing the Nautilus Training Units. Our number one draft choice a year ago, Ken Durrett came to us with a knee problem. He was not able to participate during the past season. Commencing May 15, 1972, he began a Nautilus Training Program to regain strength in his injured knee. At this writing his development has been marvelous. I am going to put our players through this program during our training period.

In all my years of training experience, have never seen such a dynamic program for strength developing.

Once again, my grateful thanks for your assistance and advice concerning Ken Durrett's recovery.

Sincerely,



Joseph D. Keefe
Head Athletic Trainer
Kansas City Kings
Professional Basketball
Club
210 West 14th Street
Kansas City, Missouri

J K:rac

Nautilus Equipment . . .

The Ultimate Development

<u>REGULAR MODELS</u> (Barbell-plate loading)			Crating
PULLOVER-TYPE TORSO MACHINE (Chain drive only)	\$825	\$45.	
BEHIND-NECK TYPE TORSO MACHINE	645.	45.	
NEW TORSO-ARM MACHINE	620.	45.	
ROWING-TYPE TORSO MACHINE	660.	45.	
CURLING & TRICEPS MACHINE (Chain drive only)	875.	45.	
HIP & BACK MACHINE (Chain drive only)	985.	65.	

<u>DELUXE MODELS</u> (Selectorized - self-contained weight stacks)			
BEHIND-NECK TYPE TORSO MACHINE	880.	55.	
NEW TORSO-ARM MACHINE	845.	55.	
ROWING-TYPE TORSO MACHINE	895.	55.	
HIP & BACK MACHINE	1360.	75.	
THIGH EXTENSION MACHINE	885.	55.	
LEG-CURL MACHINE	845.	65.	

<u>SUPER MACHINES</u>			
SUPER PULLOVER-TYPE TORSO MACHINE	1580.	85.	
COMBINATION PULLOVER & TORSO-ARM MACHINE	2290.	95.	
COMBINATION BEHIND-NECK & TORSO-ARM MACHINE	1965.	85.	
DOUBLE-CHEST MACHINE	1980.	85.	
DOUBLE SHOULDER MACHINE	1945.	85.	
DOUBLE-BACK MACHINE	1965.	85.	
WOMEN'S GEARED HIP & BACK MACHINE	1685.	75.	
MEN'S GEARED HIP & BACK MACHINE	1890.	75.	
SUPER HEAVY-DUTY GEARED HIP & BACK MACHINE	2885.	125.	
SUPER HEAVY-DUTY LEG MACHINE	1360.	65.	
COMPOUND LEG MACHINE	2360.	95.	
LEG & LOWER BACK MACHINE	5880.	225.	
COMPOUND-POSITION TRICEPS MACHINE	925.	65.	
COMPOUND-POSITION CURLING MACHINE	980.	65.	

Prices f.o.b. DeLand, Florida. Florida residents must add 4 per cent state tax. Machines to be shipped by commercial carrier (truck line) must be crated, and crating charges listed above must be added. Machines to be picked up by customers at the Nautilus factory do not require crating, and thus no crating charge is made; however, state tax must be charged on

machines picked up in Florida even when delivery is to an out-of-state customer. TERMS—50 per cent deposit with order and balance prior to shipment or pick up, or full payment with order. Machines are NOT available on an off-the-shelf basis, and delivery is made on a strict "first come, first served" basis.

ARTHUR JONES PRODUCTIONS,
P.O. Box 1783, DeLand, Florida 32720
Phone area code 904 228-2884

Try It, You'll Li-i-i-ke It

by Dick Forbes

Excerpts from editorial matter
from the Cincinnati Inquirer, July 30, 1972

THE FIRST TIME the subject looks at a Nautilus Triceps Machine, or any of the others with similar names, his blood pressure automatically jumps up 20 or 30 beats.

The "subjects" are Bengal football players, and the triceps machine is in the new training room at Spinney Field.

THE BENGALS BOUGHT the machines from Arthur Jones, who manufactures the equipment near DeLand, Florida. Chuck Studley, the club's defensive line coach and sort of a muscle nut himself, spent three days on two separate trips learning about the Nautilus Machines and going through the exercise routine himself.

So Tuesday, at Spinney Field, enter Rufus Mayes, an offensive tackle, who may not be as big a man as you've ever seen, but he isn't far off.

They strapped Mayes into a machine, his knees and legs draped over a padded bar, his shoulders fitted into more padding. Rufus slowly cranked himself into a position where his knees were almost back to his head. Then the fun started.

The bar over which his knees were draped is attached to weights, and Rufus — by straightening his knees out straight — thus lowered the bar, doing so by pulling some 600 pounds of dead weight off the ground.

About 10 or 12 or 15 leg-straighteners done as fast as possible, and with coaches urging him on and team-mates making derisive comment, is enough. Mayes groaned and puffed and moaned with exertion.

Then, quickly, the stomach strap was unbuckled. Mayes slid off and moved to the next machine that exer-

cised different leg and hip muscles, sitting down and raising his legs with enormous weights attached to the rollers.

AT A POINT IN the exercise Mayes was no longer able to lift the weights. His breath came in short spurts. Perspiration rolled down his head, and soaked the T-shirt he wore. "Now watch," said Bill Johnson, the offensive line coach who tutors Mayes, "his legs will buckle when he goes to the next machine."

Sure enough, Rufus had trouble rolling out of the sitting position and taking two short steps to the next machine. His massive legs almost refused to support him.

The third and last machine of this particular test called for Mayes to lie on his stomach and lift more weights with the calves of his legs, exercising in reverse the muscles that had already been put to the utmost strain.

Rufus managed 10 or 12 lifts before the machine got the final best of him.

"IN A FEW DAYS," Studley said, obviously pleased, "Mayes won't even know he's doing this. I mean, he won't feel pain, he won't be lightheaded, it will come easy to him."

Well, what then? "Oh, we just simply add more weight," said Studley, with an impish look. "When it gets easy, the exercises have lost their value."

The theory of the Nautilus Machines is that they provide resistance in all positions — continuous resistance that works a muscle from a position of full extension to one of full contraction.

At one point, Tuesday, four players were stretched out on rubbing tables in the training room, getting their breath and equilibrium and senses back. That was about the time when Paul Brown walked in, fresh back from California.

He laughed at the sight, but wasn't laughing when he said, "This is going to help us next fall. This is a critical year for us."

P.S. When Paul Brown calls 1972 a "critical year" in the Bengal timetable, you can be sure it means something.