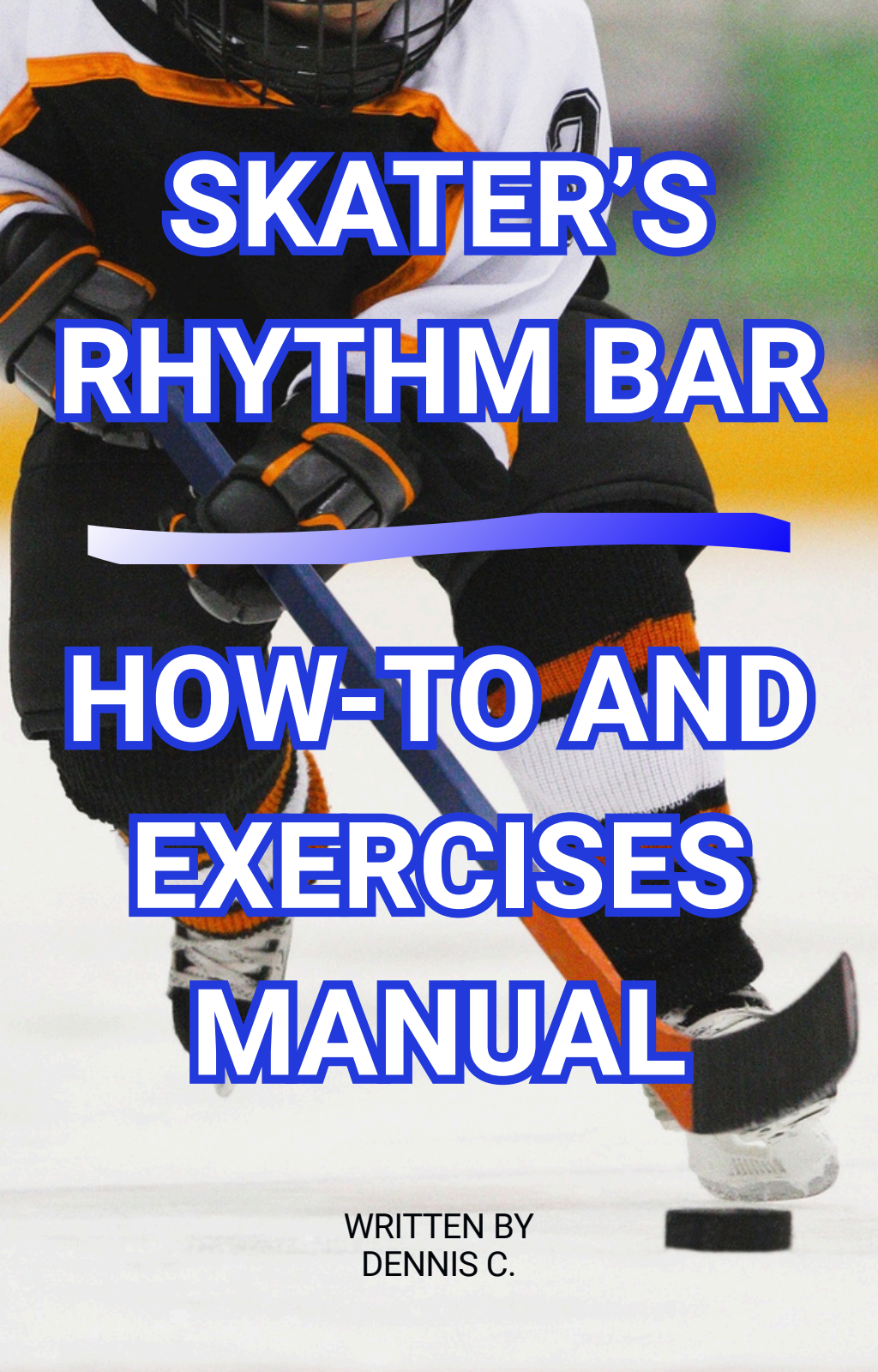


SKATER'S RHYTHM BAR

HOW-TO AND EXERCISES MANUAL

WRITTEN BY
DENNIS C.

HOW TO BUILD A SKATER'S RHYTHM BAR

The Skater's Rhythm Bar is a simple, durable training tool that helps skaters develop a smooth, consistent stride. It's made from safe, impact-resistant materials and can be built at home with just a few basic items.

BUILDING THE BAR

1. Choose the Pipe
Use gray electrical conduit from the electrical aisle of any home-improvement store. This material is tough, won't splinter, and holds up well in cold rink environments.

2. Measure the Skater
Measure from the center of the palm to the center of the armpit. Cut the conduit to that exact length so the bar fits properly.

3. Cut and Smooth
After cutting, smooth both ends so there are no sharp edges. Keep the outside plain, without tape, grips, or markings.

4. Add the Rhythm Mechanism
Insert three identical ½-inch balls that create the bar's signature movement response. Using three balls is important — that number consistently produces the smooth, centered rhythm the bar is designed for.

These balls are purchased separately; metal or glass balls both work well, and they're common items that are easy to find online or in the sporting-goods section of most general retailers.

5. Seal the Ends
Use snug-fitting electrical-conduit end caps. Glue them securely so the contents stay in place, and make sure the seals are smooth and safe to handle.

6. Test the Bar
Tilt the bar gently to confirm the balls move smoothly and consistently with each tilt.

USING THE RHYTHM BAR

The Rhythm Bar is initially held lightly across the front of the hips at the start of each skating or dryland stride drill. As the skater swings his or her arms, the sliding balls inside the bar produce a clean, even tick-tock sound. That sound reflects the timing and balance of the skater's stride. When the rhythm is steady and centered, the skater is moving efficiently. If the rhythm becomes uneven, the bar provides instant feedback so the skater can adjust.

When built correctly, the bar responds to movement with a smooth, consistent tick-tock that reinforces proper skating rhythm.

Introduction to the SKATER'S RHYTHM BAR

Having plied our trade as ice hockey skating analysts for a great many years, whether through experience or trial and error, we've arrived at numerous, rather unique training methods that often go against the norm.

Such was the case in our attempts to smooth and coordinate our students' upper and lower body movements in the forward skating motion. We discovered, over time, that concentration on the upper body, the hands and arms, was less distracting to our students, than having them worry about their feet.

In fact, with the knowledge that the body attempts to stay in balance (noted later under **SKATING MECHANICS**), we found that by improving certain skating mechanics in the upper body, proper mechanics in the lower body would follow right along.

A lack of coordination, other than smooth arm-pumping and a rather rigidness in the upper bodies of our students through the years led to the idea of our **SKATER'S RHYTHM BAR**. Although this invention came about from the needs of ice hockey players, we've found it can be easily adapted to improve the mechanics of any skater's forward stride.

It is highly recommended that the user thoroughly read the entire contents of this manual before starting the **SKATER'S RHYTHM BAR** training.

BACKGROUND

For a moment, try to envision a first-time skater stepping on the ice: Almost always, he or she will begin with their body-weight spread equally over both skates. As surely, they'll keep both feet spread and hardly dare to lift one skate off the ice. The arms are held nearly motionless out to the sides in a balancing-type pose.

Now, let's consider the opposite end of the spectrum, the advanced skater: He or she is extremely confident carrying their body-weight on one skate at a time. In fact, most advanced movements (like cross-overs) require skaters to steadily support themselves on one skate during the maneuver.

Every skater, depending on his or her experience, falls somewhere between these two extremes.

Lesser-experienced skaters, wrestling with balance, won't dare to extend their limbs far from their center-of-gravity. Without help, these skaters are a long way from executing long, powerful outward thrusts and smooth arm-pumps.

Surprisingly, perhaps, many very-experienced skaters can have variations of this same flaw in their forward stride. For whatever reason (Could it be due to poor instruction when they first started skating?), they too can have abbreviated thrusts, stiff or uncoordinated arm movements, or any other energy-robbing flaws.

For sure, if you faithfully follow the exercises prescribed in this manual, your **RHYTHM BAR** will provide a shortcut to improving many of the difficulties found in both types of skaters noted above.

The Nature of Your Game

Every game has its own nature, as a result of unique rules, playing surface, player requirements, aims, etc. It's what makes ice hockey different from field hockey, baseball different from football, checkers different from other board-games.

To excel in a given sport, one should take a close look at the very nature of that game, and determine what qualities truly mark the difference among participants.

In the case of ice hockey, for which this device was originally conceived, the game is one of constant transition. In other words, with the puck constantly up for grabs, alternately in the possession of one team, then the other, then the other, there's a premium on players who are able to read these changing conditions quickly and physically react quickly.

One might also observe that hockey players play in shifts, entering the ice for thirty to forty-seconds of play, then exiting to rest while other players work their shifts. This way of rotating the workload provides a hint as to the unique conditioning demands of this sport.

Further though, by observing an ice hockey player during his or her shift, we'll see a fairly regular pattern of activity. Typically, the hockey player will coast for a time, away from the puck, in anticipation of deeper involvement. Suddenly, the player must burst into intense activity (breaking for a pass, rushing to cover a man, etc.); and this pattern of alternately coasting and bursting, coasting and bursting, seems typical of all the skating-positions throughout a shift, throughout a game. Certainly, there are training implications involved here.

First, there is more to playing the game than having a pretty and powerful straight-ahead stride, since more crucial movements probably take place during the combative, bursting episodes of a shift. Thus, a hockey player must spend an appropriate amount of practice time on quickness-training.

Secondly, though, the "coasting phase" of a hockey player's shift is very important and warrants a great deal of attention. Over an entire game, or near the end of each shift, reserve energy becomes a real factor. It's obviously beneficial that players be able to conserve energy until crucial moments. It would be helpful then for players to move smoothly and efficiently, even over a long distance, when necessary. Further, players with energy-efficient strides will use less energy even when they're skating all-out.

This preoccupation with energy-efficiency has more merit than most casual readers would realize. For example, as an athlete tires, his or her fine motor skills are the first to vanish. Eyesight becomes faulty, and dexterity in fine movements like stickhandling and shooting-accuracy are lost as a hockey player tires.

Thus, a hockey player can benefit greatly through regular practice with the **RHYTHM BAR**. In its basic application, it will smooth and coordinate the arm and leg movements, add more power to each stride which, in turn, adds speed down the ice. Incorporated with other exercises included in the instructions, the forward stride will be more efficient. Carried further, this efficiency should conserve valuable energy for when it's really needed. For all these reasons, it's possible for the regular **RHYTHM BAR** user to be strong when others are tiring, to be a more dangerous offensive threat to the end of each shift, to the end of each game.

Although other skating-sports have quite different demands — a different nature — to them, qualities such as coordination, energy-efficiency, a longer stride, and a more powerful stride seem common to all. For these reasons, we feel this device can greatly enhance any recreational skater, the ice hockey player, the figure skater, the speed skater, roller skater and in-line skater.

SKATING MECHANICS

The mechanics of forward-skating are best observed from two aspects: **The FRONT VIEW and the SIDE VIEW**

In either view, we can notice that the body has a need to balance itself in every phase of the movement. In other words, as a leg and skate thrust outward to one side, the arms and hands help balance the body by swinging outward in the opposite direction. As a leg and skate trail backward in thrusting, the arms and hands swing slightly forward to balance-off. In fact, this balancing is necessary throughout the movement if skating efficiency is to be attained; and in the most efficient skaters, we should be able to observe these "equal and opposite" actions in any direction from a skater's center-of-gravity.

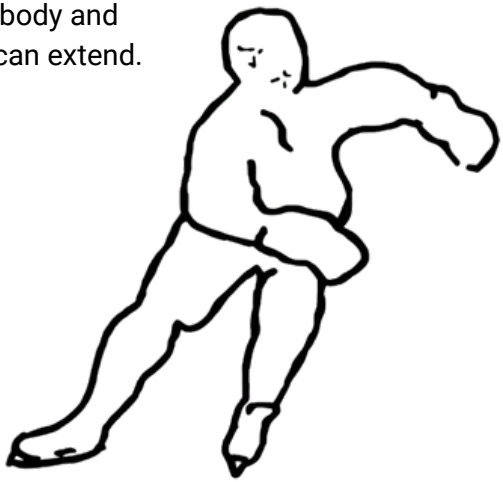
Observing from the FRONT VIEW

The above-noted balancing of the body should be obvious in the sketch below. As one skate thrusts powerfully to the outside, the arms swing rhythmically in the opposite direction. Again, this should be a smooth, rhythmical, effortless swing of the arms to conserve energy. Any tenseness or rigidity will tend to rob the skater of valuable energy.

To be efficient, a powerful thrust should begin close to the middle of the body, and then continue until the leg is completely extended. The final portion of the thrust should result in a forceful snap of the ankle, extended right out through the toes.

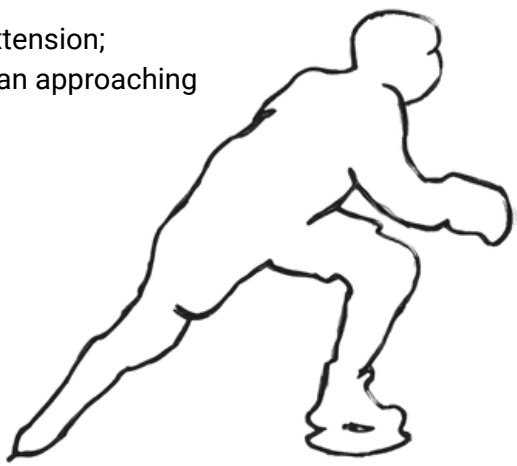
FRONT VIEW

- Rhythmic arm-swing, balancing upper and lower body;
- Thrust begins near mid-body and continues as far as leg can extend.



SIDE VIEW

- Sitting low;
- Maximum leg extension;
- Forward body lean approaching 45-degrees



Observing from the SIDE VIEW

Maximum leg-extension is only possible if a player is sitting rather low.

Try this:
First, stand with the legs straight and attempt to reach outward as far as possible with one foot. You'll discover you can't really reach far or very far. Next, lower the buttocks until nearly in a sitting posture. Now, again attempt to reach far outward with one foot, and notice how it's possible to extend the leg out a much greater distance. From this experiment, you should understand the importance of sitting rather low to facilitate a long, powerful outward thrust.

At the moment a skater completes a powerful thrust, his or her forward speed is at its greatest. However, the effects of friction between the ice speed and the gliding skate quickly comes into play and causes the glide to slow with every fraction of a second. It should make sense then, that at times maximum speed is necessary, a skater has to limit coasting, limit the time between thrusts. Finish one thrust, and immediately bring the skate to the ice to support the body for a thrust by the other skate, etc.

A forward body-lean is also important in skating. This lean should be approximately 45-degrees. Some skaters misinterpret this as a bend at the waist, which can disrupt balance and breathing. It should be a forward-lean instead.

Other INFLUENCES on SKATING

Experience certainly plays a role in one's skating ability and mechanics. Obviously, the more familiar your body is to a given movement, the more it adapts itself to the task.

However, genetics will have a great influence on one's body-type and his or her natural talent in given sports. Understand that through heredity, each skater's frame, musculature and the likes will be more or less conducive to the skating movement.

Along this same topic of discussion, understand that most skaters, due to their physical make-up, will fall into either of two groups. A great many skaters will find smooth movements easy to emulate — they can skate as "pretty" as anyone, but they may have difficulty with quickness. In the opposite extreme, many athletes are quite naturally fast or tend to be quick-footed and quick with their hands, while their shortcoming is nearly always a rather awkwardness at times when smoothness would be useful.

Applying this to the ice hockey player, we might say that some skaters find God-given success in the coasting phase of play but aren't quite so inched in bursting movements. In the extreme, some players are born with relatively quick reactions and find success in frantic one-against-one battles, but waste a good deal of their valuable energy moving about the ice during the coasting phase of play. Due to the awkwardness of their forward-stride, this second group can expend far too much energy just racing once down the ice.

Obviously, the aim of every hockey player is to be strong in both areas — smoothness and quickness. Certainly, the **RHYTHM BAR** can be helpful to every skater. Still, it's the skater in need of more smoothness, better coordination of movements and energy-efficiency who will benefit the most from its use.

HOW TO USE

Coach Chic's **SKATER'S RHYTHM BAR** and the accompanying course have been designed to improve a skater's forward-stride in accordance with the most desirable skating mechanics noted previously. In addition, the **RHYTHM BAR** is extremely versatile in that it can be used effectively in a variety of training atmospheres. Although this device was first invented for the purpose of aiding ice hockey players, your **RHYTHM BAR** and its instructional manual are easily adaptable to other ice skating sports, in-line skating and roller skating. With a minimum of adjustment, the user should be able to use each of the following exercises regardless of the sport.

It should also be assumed that each user enters this training program at a different level of skating experience and expertise. Each user will also vary in his or her own unique strengths and weaknesses. For this reason, we highly recommend every user enter the following course at the beginning, and then progress slowly at his or her own pace. Even with the most advanced skaters, we suggest there is still great benefit to continued use of the most basic exercises that follow.

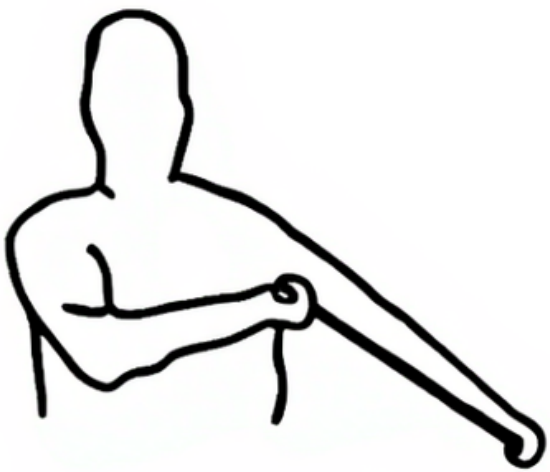
The opportunity to perform the earliest, more basic movements in front of a mirror will further enhance the training effects of this device, as well as aid the user in instant feedback for correct posture and technique.

It is imperative that the training device be appropriately sized to the user. In other words, your **RHYTHM BAR** should approximate in length between handles the distance from the user's armpit to his or her palm of the hand.

Holding the Training Device

Pose A

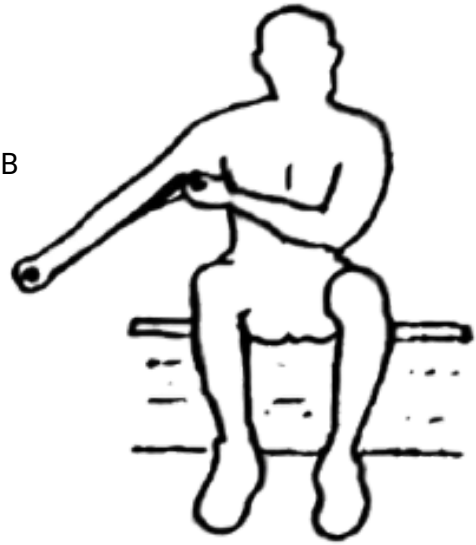
In either pose, be sure the
R-Bar's sliding weights slide to the bottom of the tube.



Pose B

In either pose, be sure the TOP HAND rotates in front of the ARMPIT; and the BOTTOM HAND swings downward and outward.

Exercise 1a
Imitating Pose A and Pose B while seated.

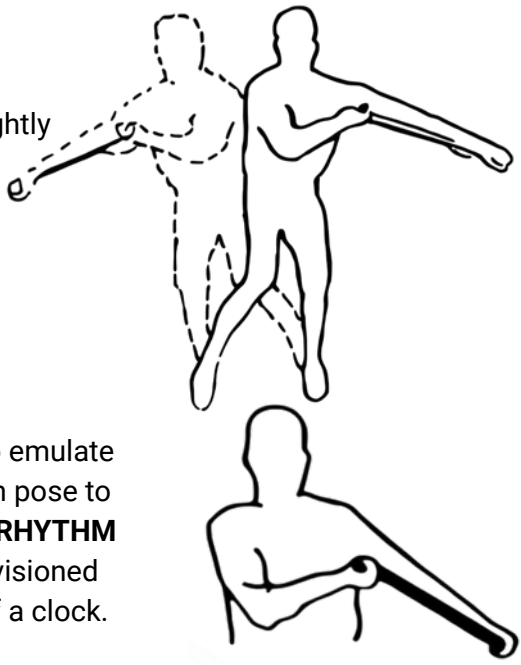


Dryland Training

Exercise 1a
While seated, strike pose A. Next, bring the **RHYTHM BAR** across and strike the opposite pose B. Attempt to make a four-step movement out of this sequence. 1–Pose A, 2–bar level in front of the body, 3–Pose B and 4–bar level in front of the body. Gradually, attempt to string these "frozen poses" into a robotic-type movement: 1, 2, 3, 4, 1, 2, 3, 4, and so on.

Exercise 1b
Standing erect, feet spread shoulders-width apart, strike pose A. Next, bring the **RHYTHM BAR** across and strike the opposite pose B. In moving the **RHYTHM BAR** from one pose to the next (A to B to A), you'll notice – hear and feel – the sliding weights enclosed within the bar. These need not be of concern right now, except that by striking each of the extreme poses, the weights should slide downward to the lowest portion of the bar.

Exercise 3 —
The opposite foot rises slightly from the floor.....



Suggestion:
The user should attempt to emulate a pendulum in moving from pose to pose. The “clicking” of the **RHYTHM BAR** weights should be envisioned as the tick-tock tick-tock of a clock.

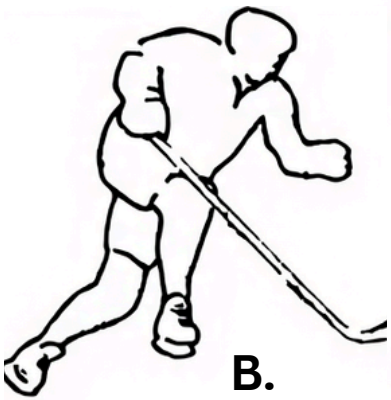
Exercise 4a
The above-described smooth, rocking motion now natural to you, it’s time to utilize the **RHYTHM BAR**’s sliding weights. As noted in earlier text, the body always attempts to stay in balance. Thus, whatever movement we make with the upper body while skating should translate to a similar but opposite movement down below. (More on this in a moment.)

Begin by rocking the bar through its normal motion. Feel how you can and do induce the sliding weights to slide outward and hit the inside-end of the bar with each movement. Gradually, make the bar and the sliding weights slide more forcefully. Snap the weight outward! Snap the weight out and downward!

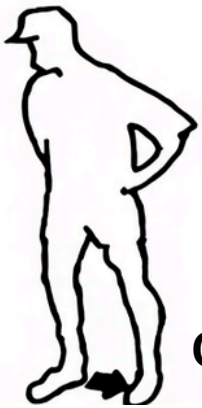
Exercise 4b
Begin in a relaxed standing position with the bar held horizontally in front of the body. In a manner similar to “Jumping Jacks,” jump to a pose as represented by the solid-line sketch (drawing below); then jump to the pose shown in the broken-line drawing (also shown below). Continue jumping to these alternating poses with emphasis on snapping the weights forcefully in one direction while extending the opposite leg far outward in the other direction.

Exercise 4b —
Jumping to skating postures.

A.



B.



C.

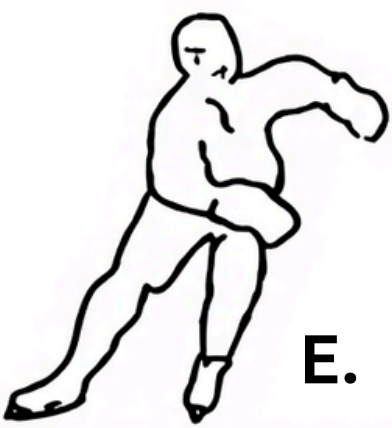
A — A beginner cautiously balances on two feet, arms out in a balancing posture.

B — An advanced skater is able to support weight on one (the left foot here) skate while doing an advanced movement. Notice this skater also “dares” to extend the limbs far out away from the center-of-gravity.

C — Standing with legs straight, we can’t extend the leg very far outward. Notice that in D, a skater sitting rather low can extend the leg.

D and E — From both views, we can see balancing on proper and lower body parts. Also note this more-advanced skater “dares to” extend the limbs outward without fear of falling.

D.



E.

Exercise 5
Coil towards one side, then explode and jump outward toward the opposite direction.

The next phase of training requires slightly more training space.

Exercise 5

As you progressed through the earlier exercises, you should have felt or sensed the need to move the lower body more along with the swinging of your upper body. Now is the time to begin work on coordinating upper and lower body movements and developing thrusting power.

Draw the bar far to the right and slightly coil the body in the same direction. As you begin to move the bar forcefully towards the left, uncoil the body so that you can spring off the right foot and jump laterally outward with the left foot. Repeat the same movement in the opposite direction by coiling towards the left and uncoiling and springing far outward with the right foot. Gradually, use the momentum generated by uncoiling and throwing the weight out to increase the jumping distance. As you get more comfortable with this exercise, attempt to really EXPLODE with each thrust. This forceful lateral jumping is as close to the skater's thrusting movement as is possible to simulate without skates.

Exercises 6, 7 and 8:
Loping down a course.

Exercise 6

Try taking the above exercise a step further by finding a clear, straight course to work on. Begin the exercise in a manner similar to Exercise 5, but as you execute each jump, explode outward and slightly forward, out to the right and slightly forward, out to the left and slightly forward, until you reach the end of the course.

Exercise 7

Thrusting power can be measured and improved upon by marking two long lines down the sides of the above-described course. Initially, make them far enough apart so that you can reach from one to the other on each lateral jump down the course. Gradually, increase the distance between the lines so that more power is necessary to reach from one to the other. You can keep records of your progress by noting improvement in your lateral jumping distances.

Exercise 8

All of the lateral jumping exercises listed earlier can be made more demanding and enhance power-development if the athlete utilizes a weighted jacket. (Always use caution when introducing any form of added resistance into an athlete's training program. The athlete's age, physical development, and current strength levels must be carefully considered before beginning this type of work. Before implementing resistance-based exercises, consult a qualified healthcare professional—such as a physician familiar with sports medicine—or a certified strength-training specialist to determine whether such training is appropriate and safe.)

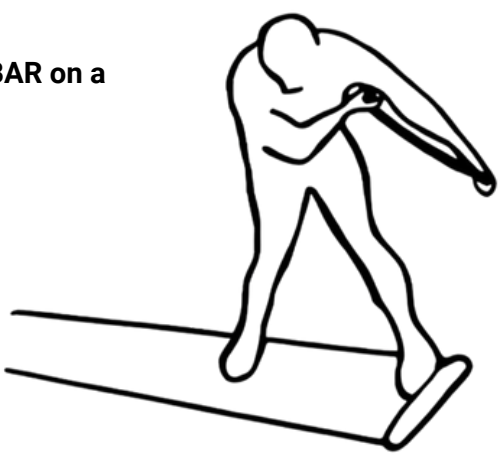
Using resistance, like a WEIGHT JACKET to build thrusting-strength.

Exercise 9

Slideboard training can be greatly enhanced with the use of your **SKATER'S RHYTHM BAR**. Use the techniques described in Exercise 5 to build lateral thrusting power. Coiled to one side with the bar held far outward, swing the bar and uncoil forcefully while thrusting with the leg. Slide across the board and then repeat the techniques in the opposite direction.

(Author's note: In our opinion, many slideboards do not come with adequate instructions. Ice hockey players should not use this device as an aerobic training aid, but should instead be striving for technique and power. Attempt to work on proper posture as noted in Skating Mechanics. Slideboards are especially helpful training aids for working on a sitting-type posture and forceful thrusts. Understand that working on such a device after one is tired will probably lead to practice of some not-so-desirable techniques. Skaters in other sports should seek the advice of professionals in their own sport for further guidance.)

Using the RHYTHM BAR on a Slideboard.....



Skate Training

The following exercises are designed to be applied while the user is wearing skates. In the case of ice skaters (hockey players, figure skaters, speed skaters and recreational skaters), drills are to be used either on the ice or in safe off-ice areas with in-line skates.

(Author's note: We have had tremendous success in our summer hockey schools from transferring on-the-ice-type exercises to the arena's rubber runway mats. In other words, we've found there to be a "transfer of skills" and improvement of skills having the students wear their skates on the rubber mats and doing drills like Exercises 3, 4, 5, 6, 7 and 8. Being sure the training area is safe, this could greatly increase the ways this device can be used away from costly or hard-to-find traditional training areas.)

RHYTHM BAR training is only applicable to straight-ahead skating, since arm movements are different on turns. If practicing in a confined area, coast or rest on turns and then apply use of the device on the next straight section.

Exercise 10

In place, review the basic **SKATER'S RHYTHM BAR** rocking motion until a nice rhythm is attained. Then, begin moving slowly forward. Concentrate on the upper body, swinging the bar far outward and downward, outward and downward.

Gradually, the upper body movement should translate itself to the lower body. Gradually, the far-outward swing of the bar should encourage an equally long, outward thrust by the opposite skate. Throughout **RHYTHM BAR** drilling, the user must think rhythm, think relaxation. Upper body tension is not desirable.

A great deal of time should be spent on the previous drill. The more it is done, the more ingrained it becomes. The more it's done, the more it becomes the user's normal skating movement.

Taking the RHYTHM BAR on the ice.....

Exercise 11

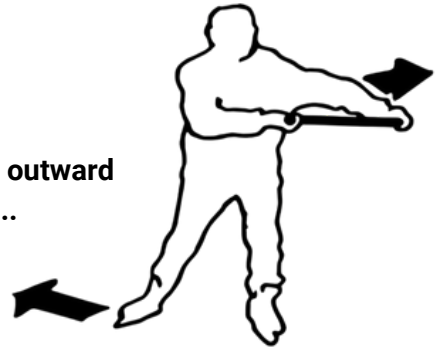
After mastering the straight-ahead movement in exercise 10, the user should attempt to combine this motion with sitting in an exaggerated squat. It is suggested that the exercise be done in short bouts of work, say for about ten-seconds on a straight-away, with adequate rest between bouts.

(Author's note: Many skaters tend to stand-up while skating, primarily due to a lack of strength in the upper leg muscles. Try supplementing the RHYTHM R-BAR training with this exercise three times per week.)

Without skates, sit against a wall as if supported by an invisible chair. Don't cheat by using the hands in any way, but instead hang the arms at your side. You should experience some slight pain in the upper legs within a few seconds from supporting all the bodyweight in this fashion. Don't go too long. Instead, start by performing the exercise for about ten-seconds, then rest. Go back and perform it again, rest, and do it for a third bout. Gradually, over many weeks, attempt to build up your time until you can easily perform the exercise three times for thirty-seconds each, with sixty-second rest intervals. Avoid overdoing the exercise for too long in the early going, and stop this form of training if pain occurs in the knees.

A leg-strengthening exercise – Wall Sitting……..

Snapping the ankle outward through the toe.....



Exercise 12

Once the above movement becomes a natural one, the user should attempt to concentrate more on snapping the bar's sliding weight. Snap the weight forcefully outward to encourage an equally forceful snap of the opposite ankle and thrust through the toe on each stride. Still maintaining the sitting posture noted above, snap the weight and opposite ankle, snap the weight and opposite ankle.

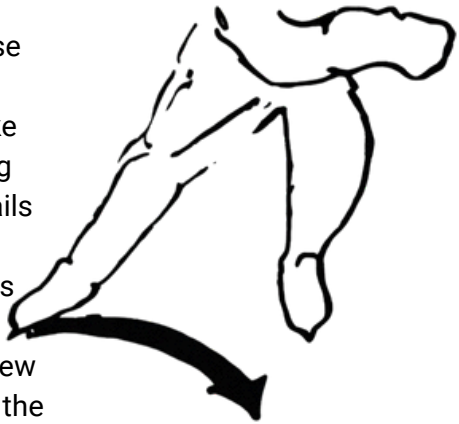
In 1981, New England Hockey Institute invented the Toe-drag Drill to remedy skaters who tend to kick-up their skate after thrusting, or otherwise delay the immediate return of that free-skate to the ice.

Exercise 13

A. Without the **RHYTHM BAR**, attempt to execute a normal forward skating stride, but as you complete each thrust, drag the toe of the skate-blade ever so slightly along the ice. (Some skaters will introduce all sorts of strange mechanics and contortions when first trying this drill. Other than a slight scratching sound, dragging the toe should not in any way disrupt the normal skating stride.) Do your striding at about one-half to three-quarter speed, initially. Gradually, build up the speed to a relatively fast pace.

B. Once the above form of drilling is mastered, attempt to incorporate the **RHYTHM BAR** into the same exercise. Certainly, the intent is not to have a skater drag the toes during competition, etc. This is only an exaggeration in hopes that, if done hundreds of times in practice, the natural movement will become one in which the skates come-up only slightly off the ice. (Similar exaggeration has been applied to the "sitting-low" form of drilling so that we get the skater at least close to good skating posture.)

The TOE-DRAG DRILL



A number of skaters will tend to use short, choppy strides that when observed from a front view look like the skater is running and straddling rail road tracks. The “rail roader” fails to bring the free-skate under the center of the body, thus he or she is only able to thrust a few inches outward on each stride. In 1981, New England Hockey Institute invented the Throw-the-knee-in Drill to remedy this problem.

Exercise 14

A. First, without the **RHYTHM BAR**, perform the Toe-Drag Drill with the following adaptation: As a skate completes its thrust, drag the toe forward by pulling the knee through and slightly in front of the other knee. Continue the movement, thrusting, dragging the toe and pulling the knee through in front of the other knee. (As in some other forms of our drilling, this exercise gives the skater something easier to think about (rather than the foot-placement) and easier to execute. If the knee passes slightly beyond the center-plane of the body, the skate will come down to the ice just as we’d like it.)

B. Once this movement becomes natural, it should be incorporated with the training device.

The THROW-THE-KNEE-IN DRILL

WARNING

A complete physical examination is highly recommended when beginning any physical training program. Adult supervision is recommended at all times in the operation of the enclosed training device to the logical and safe application of each exercise relative to the user's age and abilities.

As with any training program, the user of this device should ensure that the training area is safe and free of debris or dangerous obstacles. Adjunctive to the training at hand, the user should always wear protective equipment additionally recommended for his or her particular sport.

The enclosed device has been designed and assembled so that the user can realize the maximum training effects with a minimal risk of injury. Still, any training device can inflict serious injury if common sense and standards of safety are ignored. It is recommended that this device not be subjected to unusual abuse, misuse or to extreme temperatures for extended periods of time. Immediately discontinue use if at any time the device becomes damaged in any way.

Mention of strength-training or the addition of resistance to the enclosed training program is intended for mature and physically-developed skaters assumed to be in good physical health. In general, young athletes should reap the most benefits from skill-oriented training. Those users who have reached puberty may consider more strength-training or speed-training in their routine after consultation with one well versed in that field.

In the case of any of the points noted above or within this training manual, common sense should prevail.

Good luck, and happy skating!