10 Hammer Throw

Introduction

As throw is a natural and usual process, the throw competitions are held since long time. Thus the throw competitions were organized in ancient and modern age Olympics. They included Discus throw, Shot Put, Javelin throw and Hammer Throw. Today throw competitions are centres of attraction in athletics. Everybody sees strong and muslular body of the competitors.

Throws are of four types : (1) Shotput (2) Discus throw (3) Javelin throw (4) Hammer throw

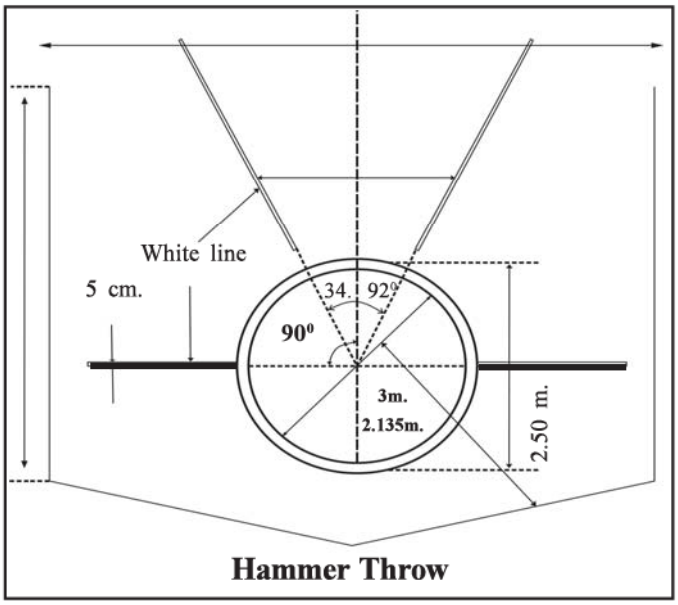
From above four types Hammer throw is included in our syllabus.

Ground

The Hammer Throw circle is formed by fixing the iron or any other suitable material ring. The ring's upper part is even with the ground and it is 1.4 cm. to 2.6 cm. deep inside the ground. The surface inside the circle is made of cement or concrete like hard even and non-slippery substance. The inner diameter is 2.135 mts. and the thickness of ring is at least 5 mm. The ring is of white colour. A 75 cm. long and 5 cm. wide line is drawn on both the sides from imaginary centre line of the circular ring.

Hammer

Hammer is made of 3 parts like (1) Sphere (2) Chain (3) Handle



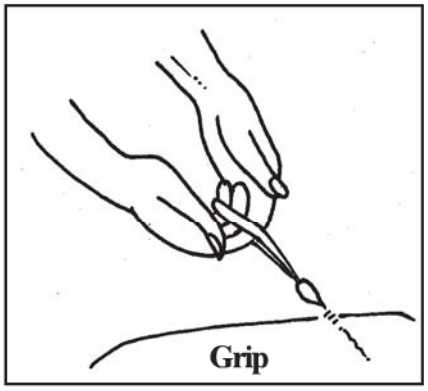
Hammer Throw

Skills of Hammer Throw

(1) Grip (Hold) (2) Swing (3) Turn (4) Throw (5) Release (6) Balance.

(1) Grip (Hold)

A right hand athlete wears a leather glove on the left hand to grip the handle. The gloved left hand is inserted from left hand side so that the handle runs the complete width of the hand and rests on the second joint. The right hand is inserted from right side and merely folds over the left hand to close and secure its grip on the hammer throw handle, The fingers are inserted and not the thumb. The thrower stands at the back side of the ring so that its back is towards the direction of the throw.


Grip

(2) Swing

After the initial stance the preliminary swings are began.

(1) The first movement is an action similar to that of low hand pitching. A strong right hand grip is taken and the hammer is raised above and along with the body and given the motion.

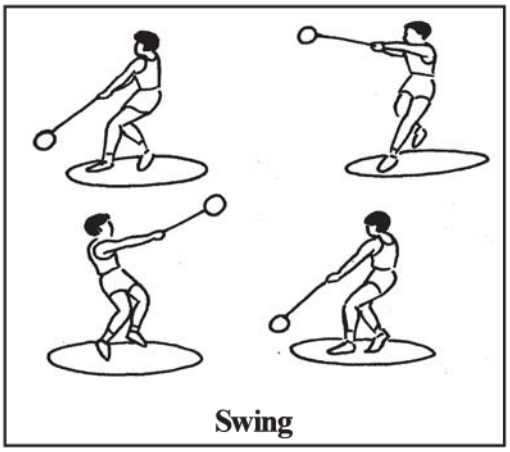
(2) The torso and shoulders move ahead. The body weight is distributed equally on both feet.

(3) The hammer is rotated in such a way that it goes far from the body making bigger rotation.

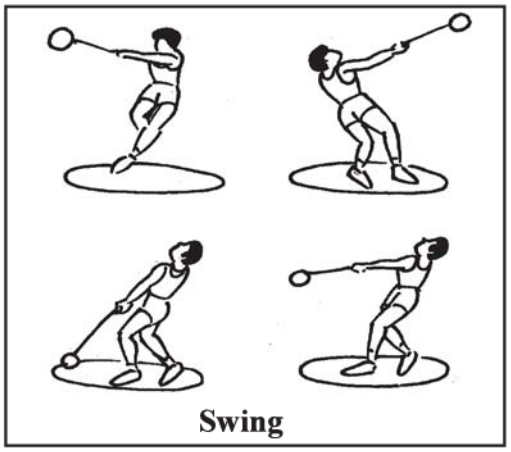
(4) It is in transition or steady position till the hammer does not reach its maximum point that is both the hands are at the other end of the right shoulder.

(5) When the head of hammer reaches the lowest point then the second preliminary swing is quickly turned towards the left side completely. The left knee bent inside and the torso twist towards back.

(6) The shoulder and arms play simple role during the swing. All the processes should be naturally coordinated and effective to make the rotation bigger.



Swing



Swing

Movements with preliminary swings

The elements coordinating the swings and turns in the Hammer throw are called transition phase.

(1) The transition phase is first stage after the hammer head has reached higher point and from the lowest point with the last preliminary swing.

(2) When the hammer head is rotating from the high point to the low point forcefully in the swing then the thrower puts his body weight on the left side. The motion of the hammer can be increased by doing so.

(3) When the hammer head is dropping from highest point to the lowest point, the body weight is shifted a little early on the left leg.

(4) The pivot movement of the right leg is on the foot during the transition phase. The knees are kept bent. The eyes are kept on the moving with the movement of the hammer head.

(5) When the hammer reaches is lowest point then with left leg's heel and right leg's toes a pivot is made and the turn begins. The pivot process starts on the left leg's heel. The pivot process is near the little finger of left leg and on the outer edge of it. Heel to toe rolling action is from the out side of the left leg.

(6) When the hammer head is passing from the highest point and the right leg's pivot leaves the contact with ground by picking it up, thus ends the transition.

(3) Turn

Generally 3 turns are taken in hammer throw, The turns accelerates rotation movement makes it faster and effective. The technical description of turn is as follows.

(1) During the transitional phase the hammer is passing the highest points, then in the first turn the leg after fully rotating is placed on the ground. The right leg is fully controlled during the rotations.

The right foot picked is brought fully around near left heel and turn is taken. The body balance is not maintained if the big round turns are taken with right leg. It obstructs the motion of turns and swings. It is important to master in speedy and simple movements.

(2) Hips, left leg's pivot toes and shoulders rotate continuously on its axis the hammer gets acceleration from twisting of the hips and shoulders. The hips and legs move ahead during the turns and the bend is also equal, so the centre of gravity does not go high or low.

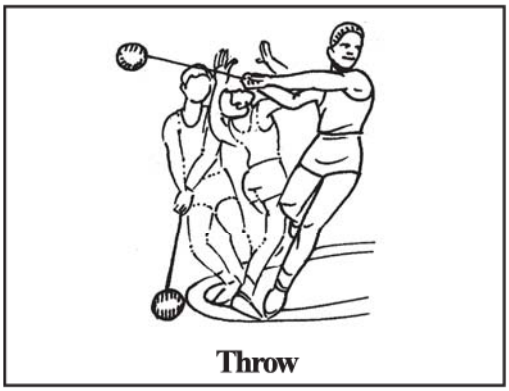
(3) The whole body weight is on the left leg while rotating on its axis. At the end of the turn the right leg touches the ground and gets a shot jerk. By doing this, one gets the time to move from hip axis to shoulder axis for taking next turn.

(4) The arms play a indirect role and really serve as an extension to the hammer head. If the hammer is pulled by pulling from elbow then it obstructs the rotation of hammer and its rotation is also shortened and it disturbs the balance also. During the pull, the hips and shoulders are at even movement. The pulling should be done when the ball is slight behind the right side.

(5) Through regular practice the athlete can completely master over the balancing with heels during turns . The legs movement and its efficiency only decides the efficiency of the turns. The method of 360 degree turn from the left heel to toes takes you ahead in the throw direction. The novice generally make mistake of turning body weight on the right leg. This hampers the rotation, motion and so the throw is not easy.

(6) During second and thirds swing the legs are apart but slowly after each turn they come nearer. And during this time a great concentrated energy develops in the hammer. To keep this force an athlete bends his legs from knees, flaxes the body and remains in hanging position on the hammer. By doing so, he can increase the hammer rotation before straightening the body and gets more steadiness.

(4) Throw



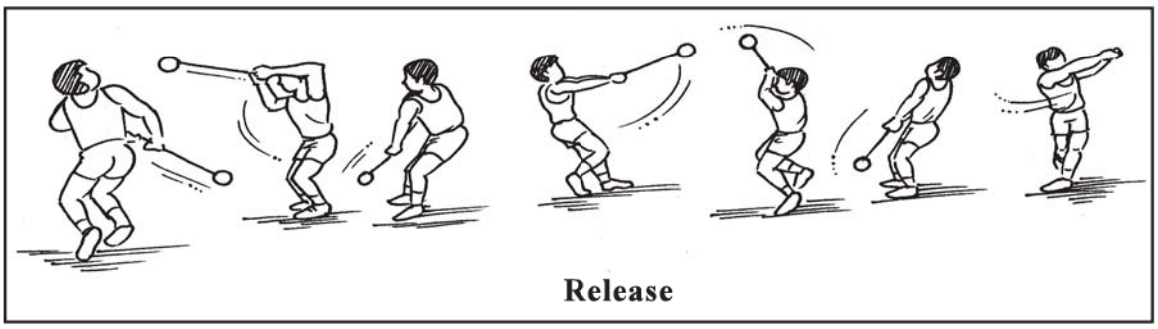
Throw

At the end of the third turn the right leg touches the ground. The actual throw process starts now. Generally the hammer thrower takes three turns but some American and Russian athletes take five turns.

The hammer head passes its highest points for the third time when the right leg touches the ground for the last time. The hammer is in full swing and highly accelerated when the hammer is released. Its centre of gravity is 450 pound and which is 30 times more than the hammer weight. This proves true with the good athlete. The athlete brings his both the feet near to control this terrible power force, and strongly grips the hammer chain. He flaxes his body into a shell, so that his legs don't get raised from the ground.

(5) Release

The athlete takes body weight on both legs from the left leg, because now he is on the edge of releasing the hammer. When the hammer is passing from the lower point then again slightly he shifts his body weight on the left leg. The bent of right leg continuous to drag. Now the process of straightening the left leg with a push from ground and raising the hammer high begins. Along with this, the athlete lets his both hands go down and he enables himself to raise the hammer from proper angle and deliver it. The athlete releases the hammer above left shoulder with left hand.



Release

The torso is bent like a bow towards back at the time of release. The chin is in line of chest. So that hand does not swing back. The hands play the key role and helper role remaining in a passive mode in the throw direction.

(6) Balance

The thrower should take care not to keep the body weight on the left leg after releasing the hammer, otherwise he will be thrown out of the ring before or after the release. The right leg generally comes ahead for the reverse, then the athlete for the balance crosses the right leg on the left leg by pivoting it with right leg.

Rules of the Game

(1) The sequence is decided an order drawn by lots.

(2) Where there are more than eight competitors, each competitor shall be allowed three trials and the eight competitors with the best valid performances shall be allowed three additional trials. In the case of the last qualifying place, if two or more competitors have same the best performances then all are allowed for three additional trials.

(3) In the preliminary swing the hammer touches the ground then it is not a foul but the hammer touches ground and the athlete stops in between then it is a foul.

(4) If hammer breaks during a throw or while in the air, it shall not count as a failure, provided the trial was otherwise made in accordance with the rule. Nor shall it count as a failure if a competitor there by loses his balance as a result contravenes any part of this rules. In both cases the competitor shall be awarded a new trials.

(5) It is a valid trial if the thrown hammer falls in between the throwing area lines on the ground.

(6) The athlete can not leave the circle till the thrown hammer does not fall in the throwing area. After the hammer falls on the ground and he/she attends steady condition, he/she can leave the ground from the back half of the circle.

(7) The best performance of competition is taken into consideration. If there is a tie for first place then second best performance is considered and respective decision is taken.

(8) The men's hammer weight should be between 7.265 kg. to 7.285 kg.

(9) The women's hammer weight should be between 4 kg to 4.025 kg.

Exercise

1. Answer in detail :

(1) State the skills of hammer throw.

(2) Explain the turn skill in hammer throw.

(3) Describe the grip in hammer throw.

(4) Explain the balance skill in hammer throw.

2. Write a Short note :

(1) Swing (2) Release

3. Choose the correct answer from the given options :

(1) What is the diameter of the ground of hammer throw?

(A) 3 mts. (B) 2.135 mts. (C) 2.165 mts. (D) 2.5 mts.

(2) How many trials does an athlete get in the hammer throw for first place?

(A) 6 (B) 3 (C) 8 (D) 7

(3) What is the width of the ring of the ground in hammer throw?

(A) 2 mm. (B) 4 mm. (C) 5 mm. (D) 3 mm.

(4) What is the weight of hammer for men in hammer throw competition?

(A) 7.265 kg. (B) 8.265 kg. (C) 6.285 kg. (D) 7.260 kg.

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