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при Совете Министров СССР

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НАША ОБЛОЖКА:

На первой странице: заслуженный мастер спорта, победитель I чемпионата мира по спортивной ходьбе на 50 км В. Солдатенко. Фото Ф. Николаидн.
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Hammer Throwing

During the past 20 years, our country's hammer throwers have performed extremely well in international competitions. They have had the combination of necessary physical assets and special technical skills.

As the number of successes in the sport has increased, there have been significant changes in training methodology and technique of the top hammer throwers.

Let's look at the sequence, included with this article, of Youri Sedykh, the champion at the 21st Olympic Games and the USSR record holder. We can follow the key modifications in hammer throwing technique that have occurred during recent years. The sequence is of Youri's 75.64 m throw at the 1976 Montreal Olympics.

First, let's look at the length of time of the double-support phases in each rotation and Youri's movements in the single-support phases. Take special note of the moment as he places his right foot down on the circle.

It's not necessary for us to consider all the details and elements of Youri's technique in the sequence. The reason is, except for the elements mentioned in this article, Youri's technique is the same as what was used by throwers in the past.

An exceptional characteristic is the overall position throughout the entire throw. Youri's arms are perfectly straight during every rotation and his balance is excellent in each phase.

Let's start with the double-support phases. Pic 4 is the 1st turn, pic 12, the 2nd and pic 20 the 3rd. It's evident that Youri stays in his double-support position long enough to square up his shoulders and hips axes.

In every rotation, Youri turns left to 90. This is something that has not been the case for other throwers. It's true that R. Klim and A. Bondarchuk turned to 90, but only during the first rotation. Others lifted their right foot earlier which resulted in a sort of dragging the hammer behind them, like in the discus throw. This hinders the rotational speed of the thrower's body and obviously negatively affects the results. It's possible to drag a discus behind your body, but not a hammer. This is because the centrifugal force on the thrower can get extremely high, significantly higher than the bodyweight of the thrower.

Another aspect of Youri's hammer technique, which is seen in the new generation of throwers, is the perceptible use of the hammer ball's force of inertia. Inertia is generated during the execution of the double-support phases and continues during the single-support phases.

The major link in [the chain] of the hammer-and-thrower system is not the body of thrower, but instead, the hammer ball. Pics 6, 7, 14, 15, 24 and 25, the thrower goes with the hammer ball until the ball passes the highest point in the rotational plane. Youri does this without actively moving his lower body, his hips, and legs. After the ball passes its highest point, the thrower starts to actively turn himself around his point of support, the front of his left foot, by using his right foot. He tries to move the ball as soon as possible after his right foot touches the circle. See how Youri pulls away from the hammer ball, not by actively twisting his hips and legs, as was taught in the past, but with his whole body, except for his arms. The differences between the axes of the shoulders, hips and legs should be decreased in the front.

This moment is the key and most important element of modern hammer throwing technique. Something similar, but not quite as successful was done by the author of this article.

By performing the final part of the single-support phases in this way, makes it possible to shorten the length of time of them and with this, increase the active movement of the ball by increasing the length of time of the double-support phases.

The most active part of thrower's body in this phase is the right leg and not the hips as was thought in the past. This can be explained by the fact that to get ahead of the ball as it travels during the final part of the single-support phases, the thrower's body needs to increase its rotational speed at a rate a little more than the movement of the advancing ball. It's practically impossible to do this by turning the hips, because the hips are loaded, particularly on the left side.

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Increasing the length of time of the double-support phases of every turn enables the thrower to rotate the hammer-and-thrower system perfectly around a vertical axis of rotation. This gives the system of the hammer-and-thrower balance during the single-support phases.

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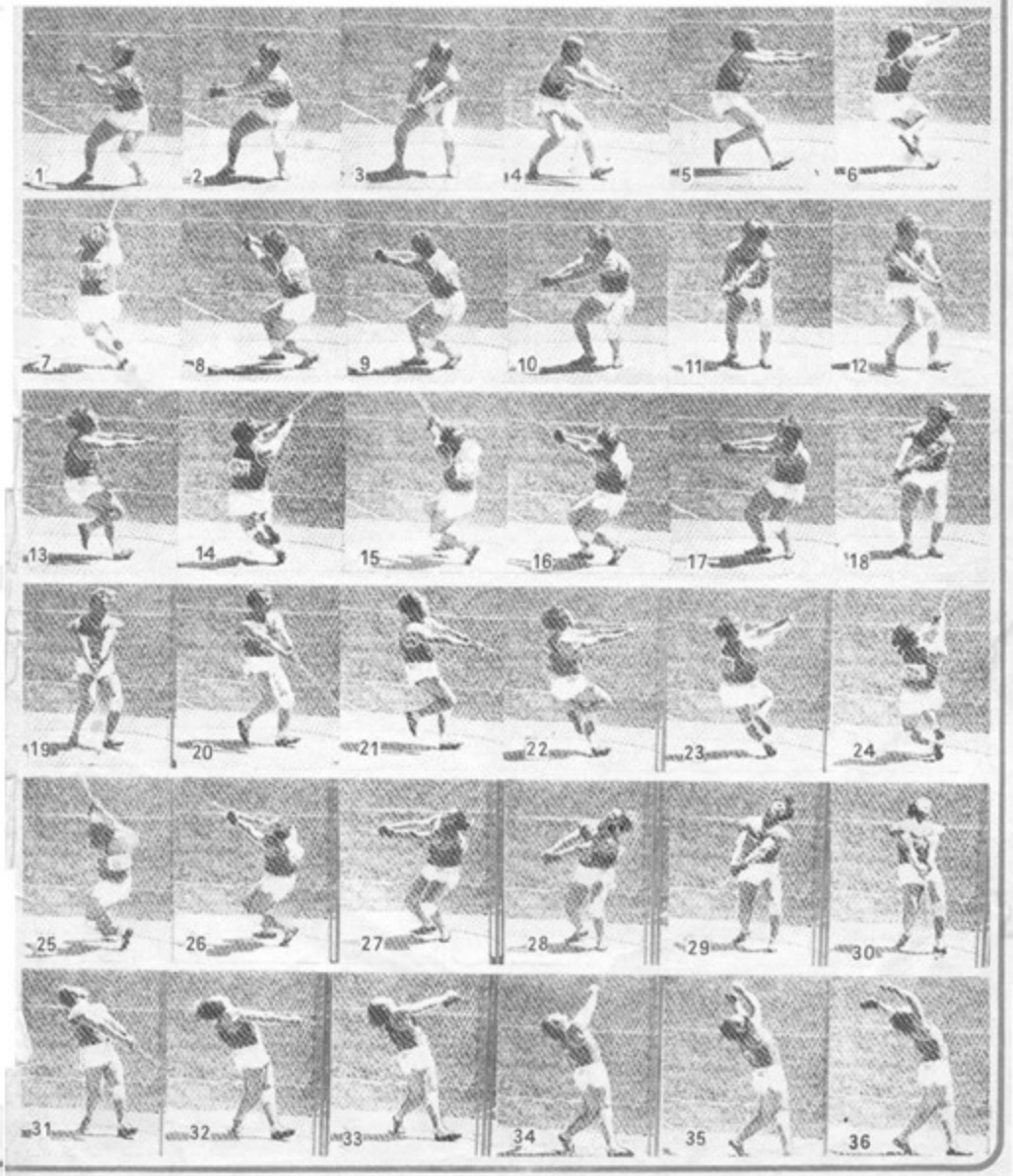

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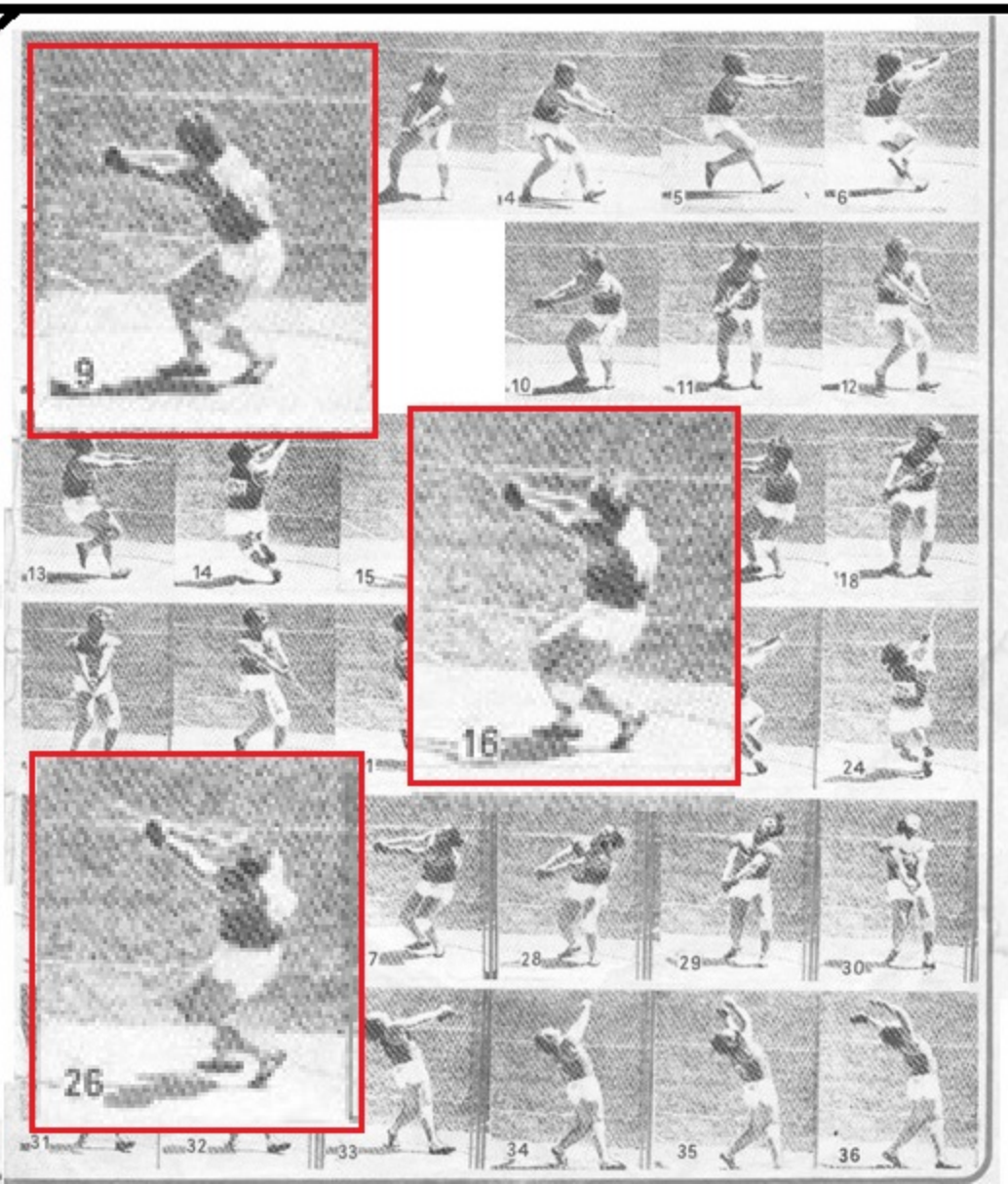

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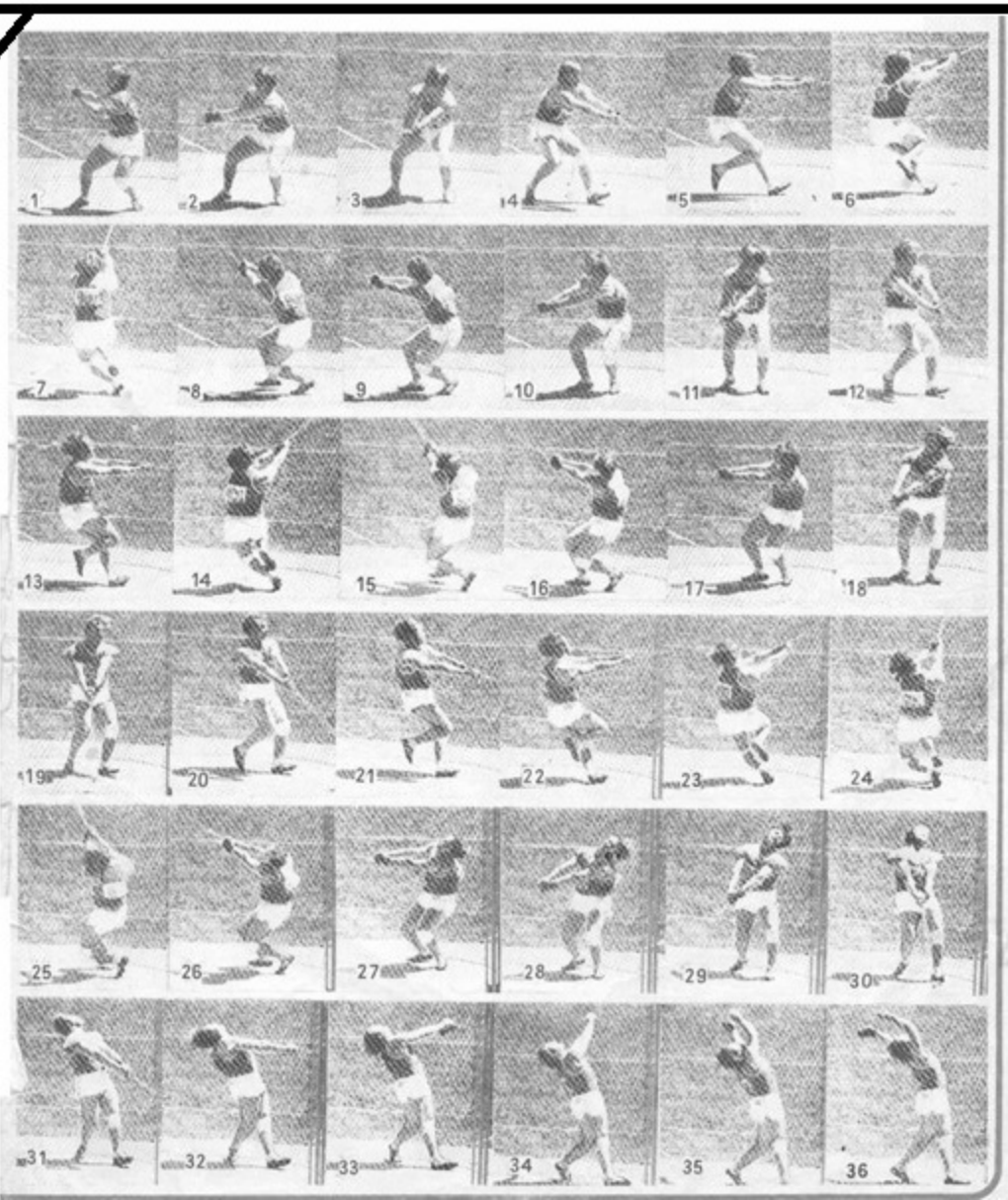

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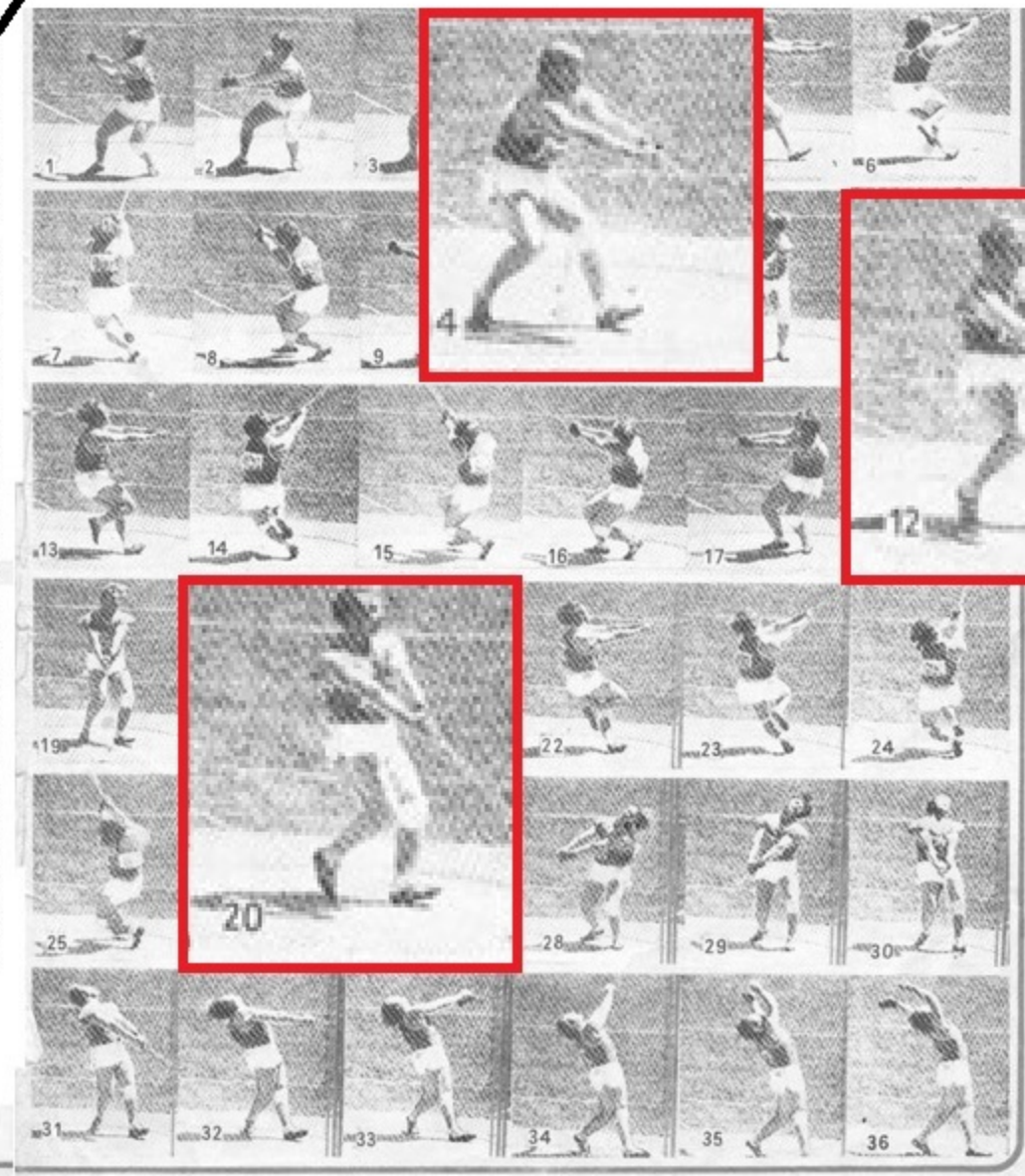

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Hammer Throwing

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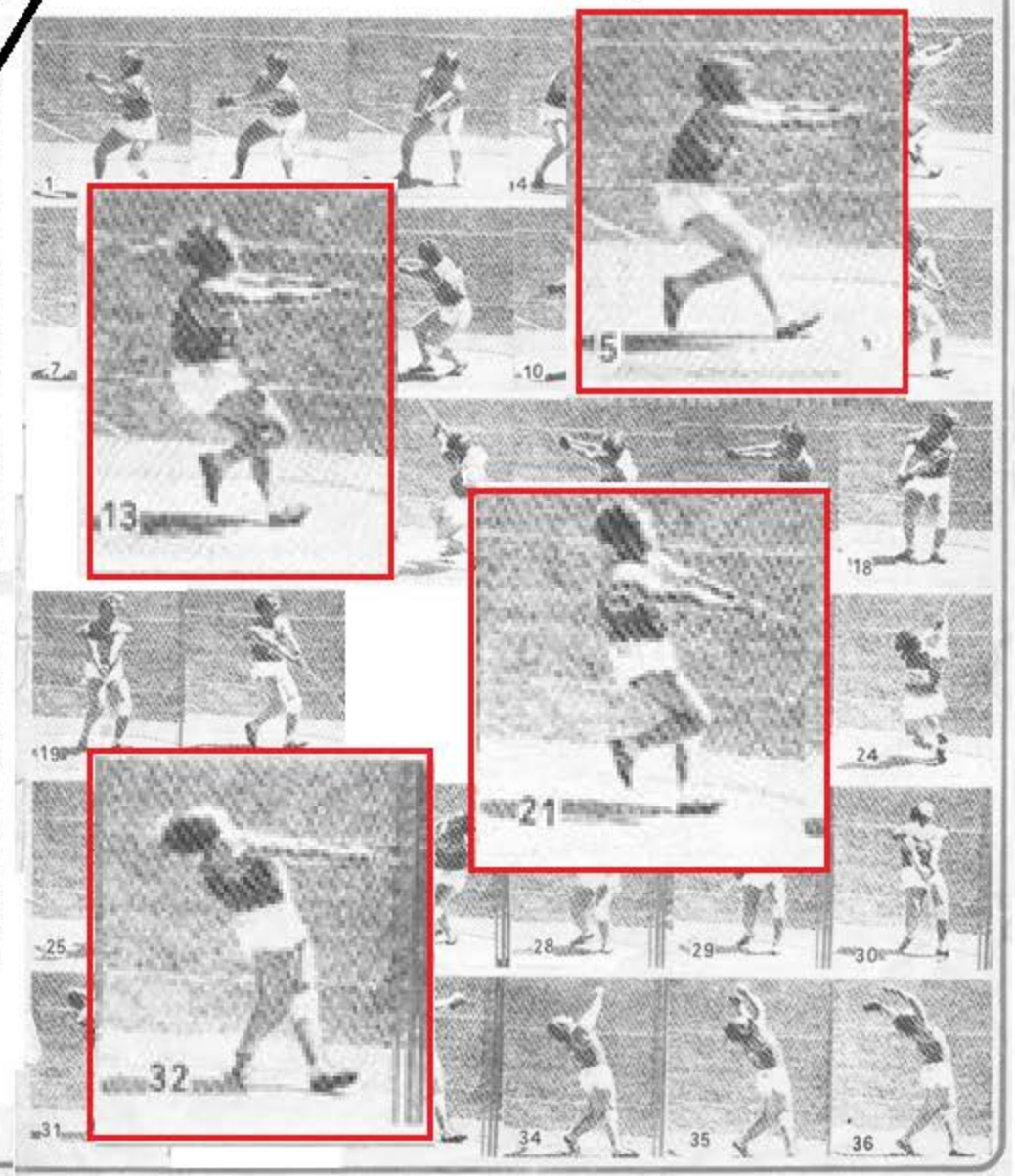

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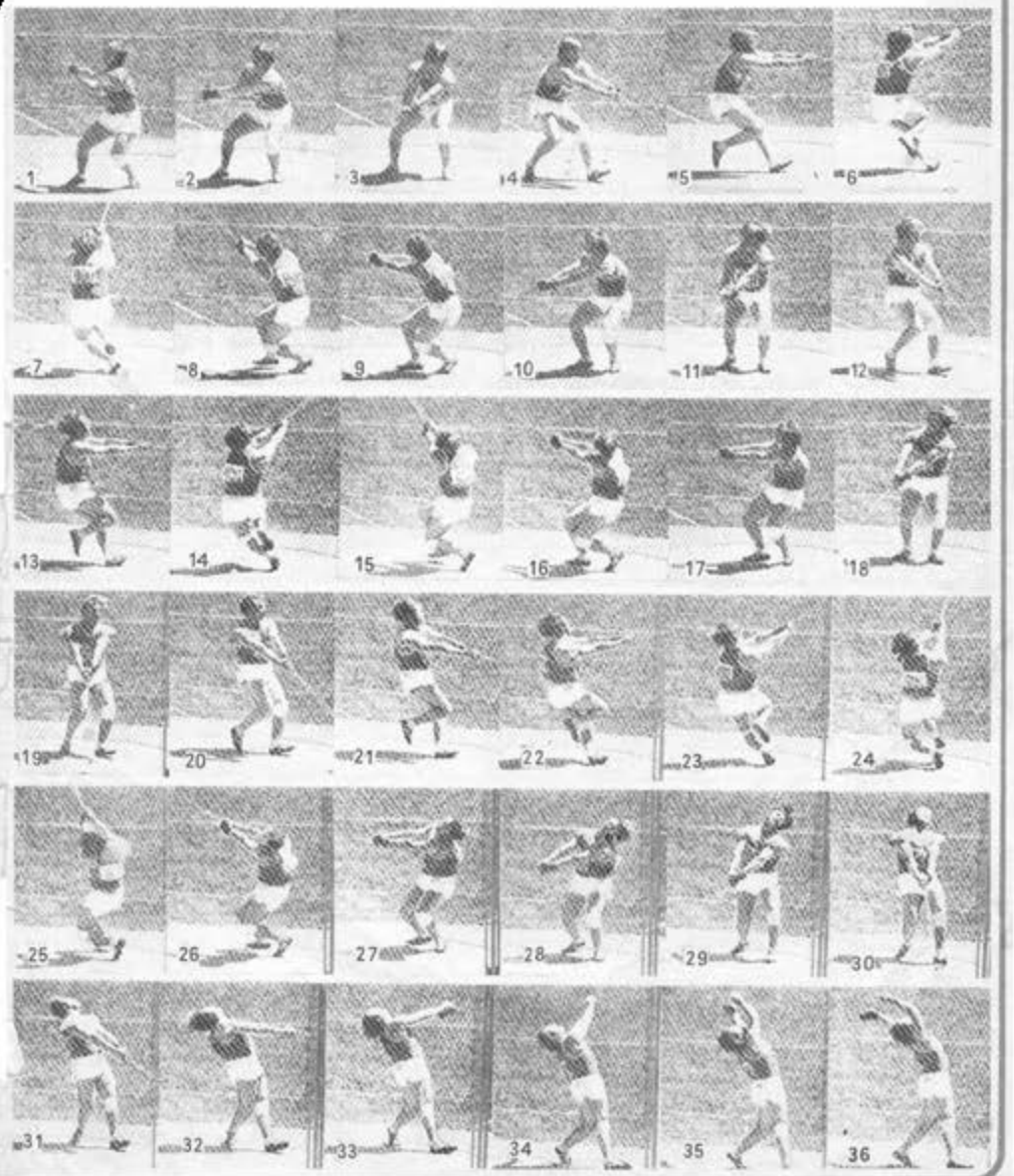

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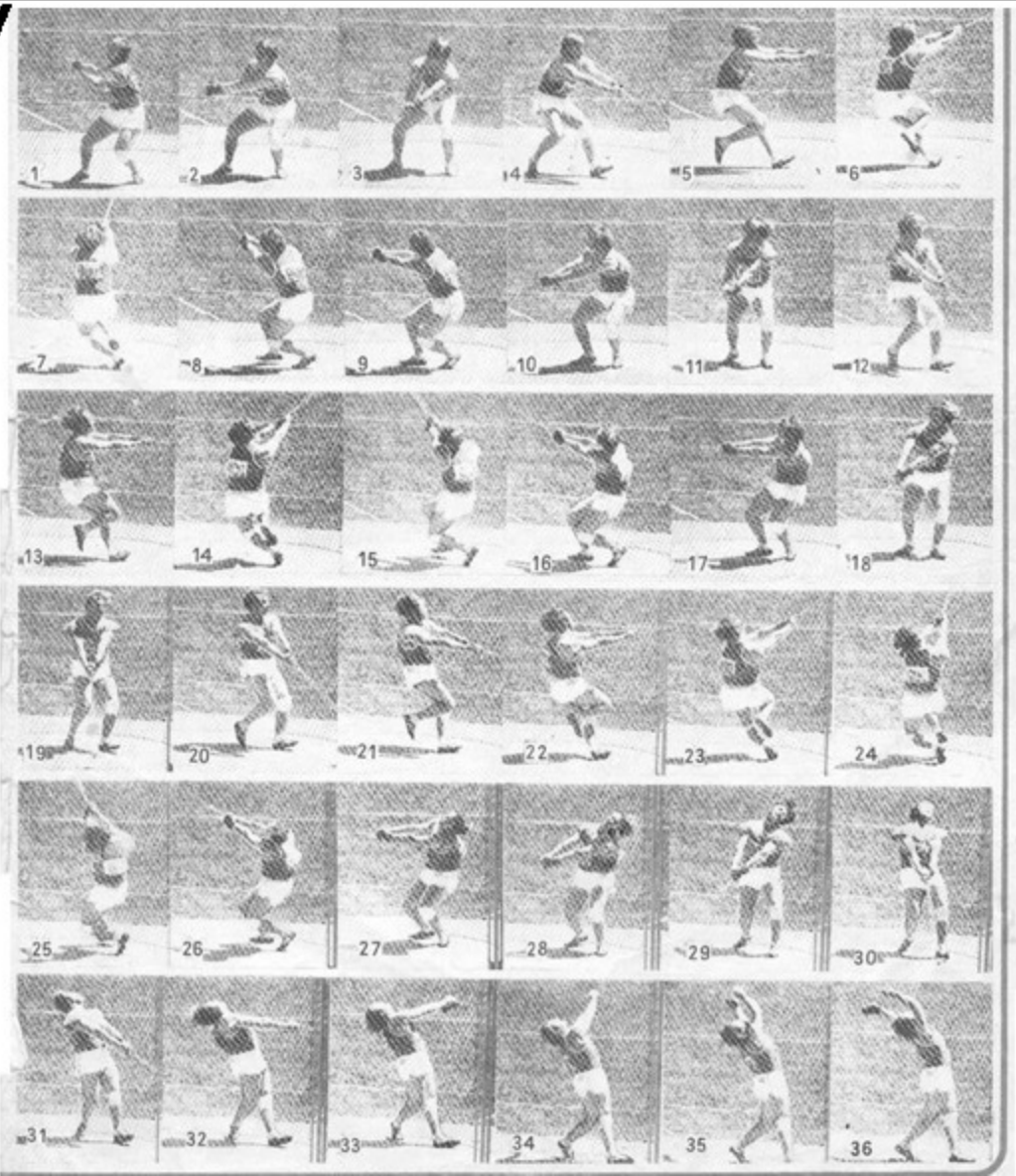

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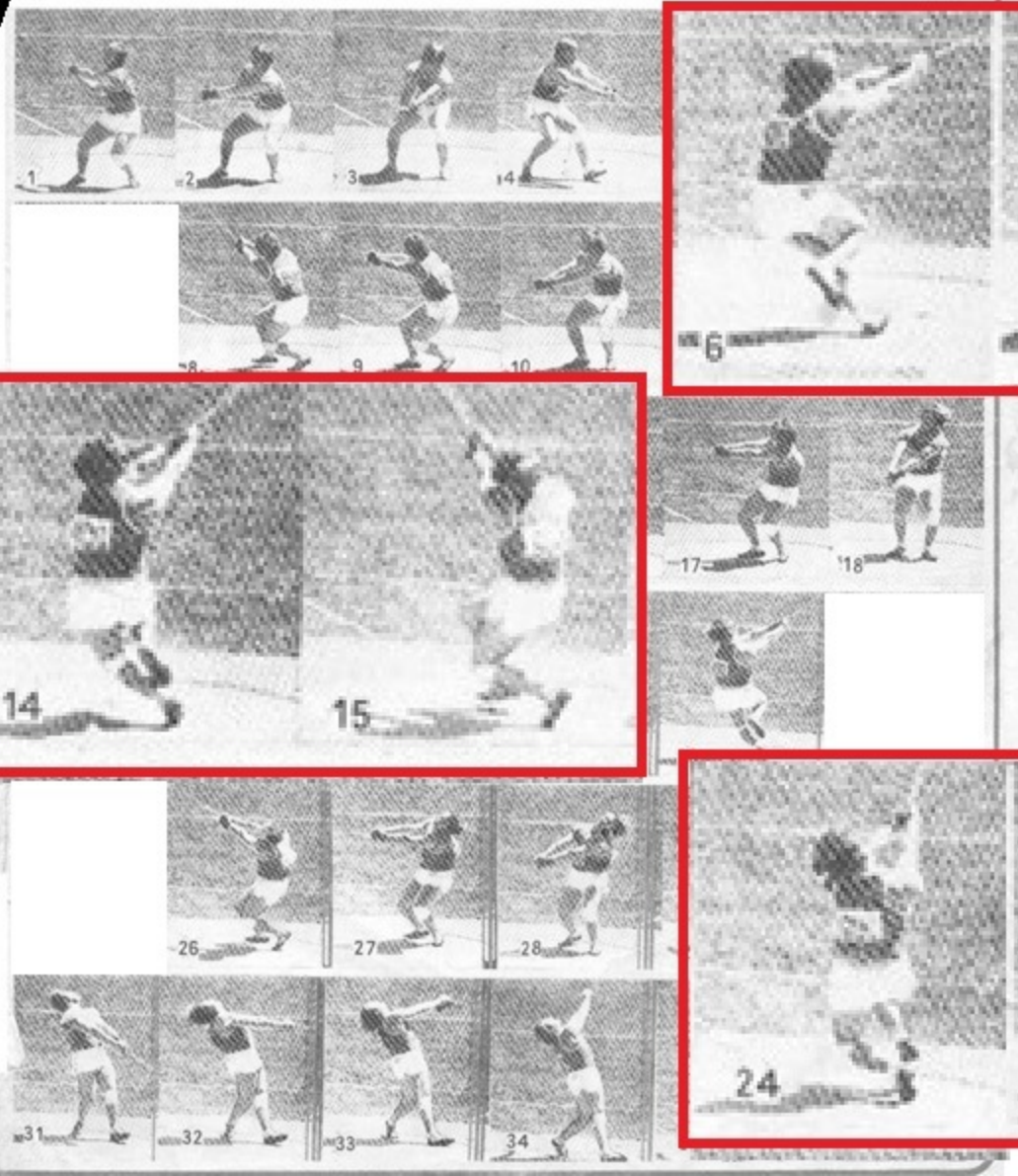

Sedykh Throws the Hammer

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Легкая атлетика 1'77

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32

Hammer Throwing

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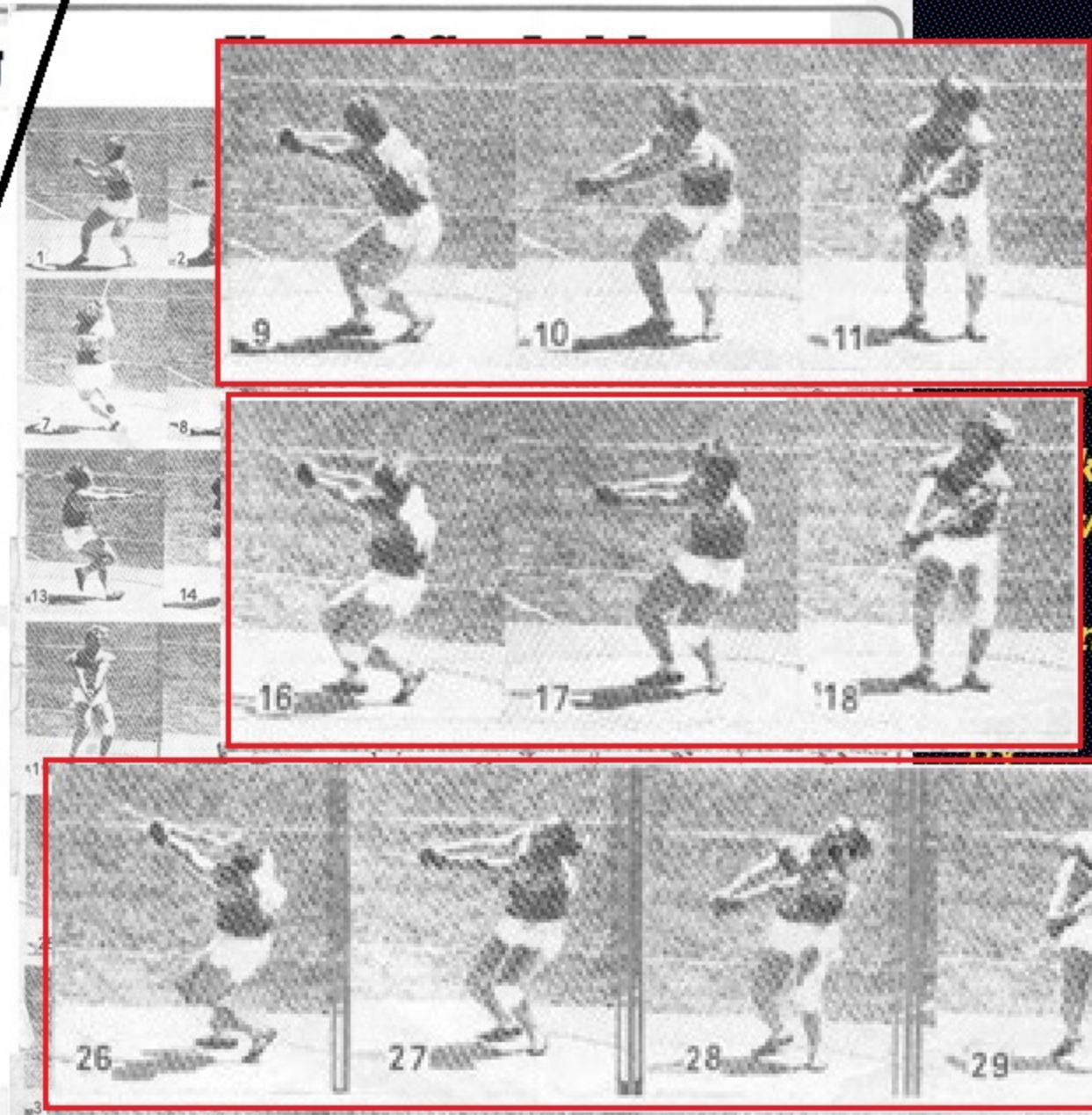

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Legkaya Atletika January 1977

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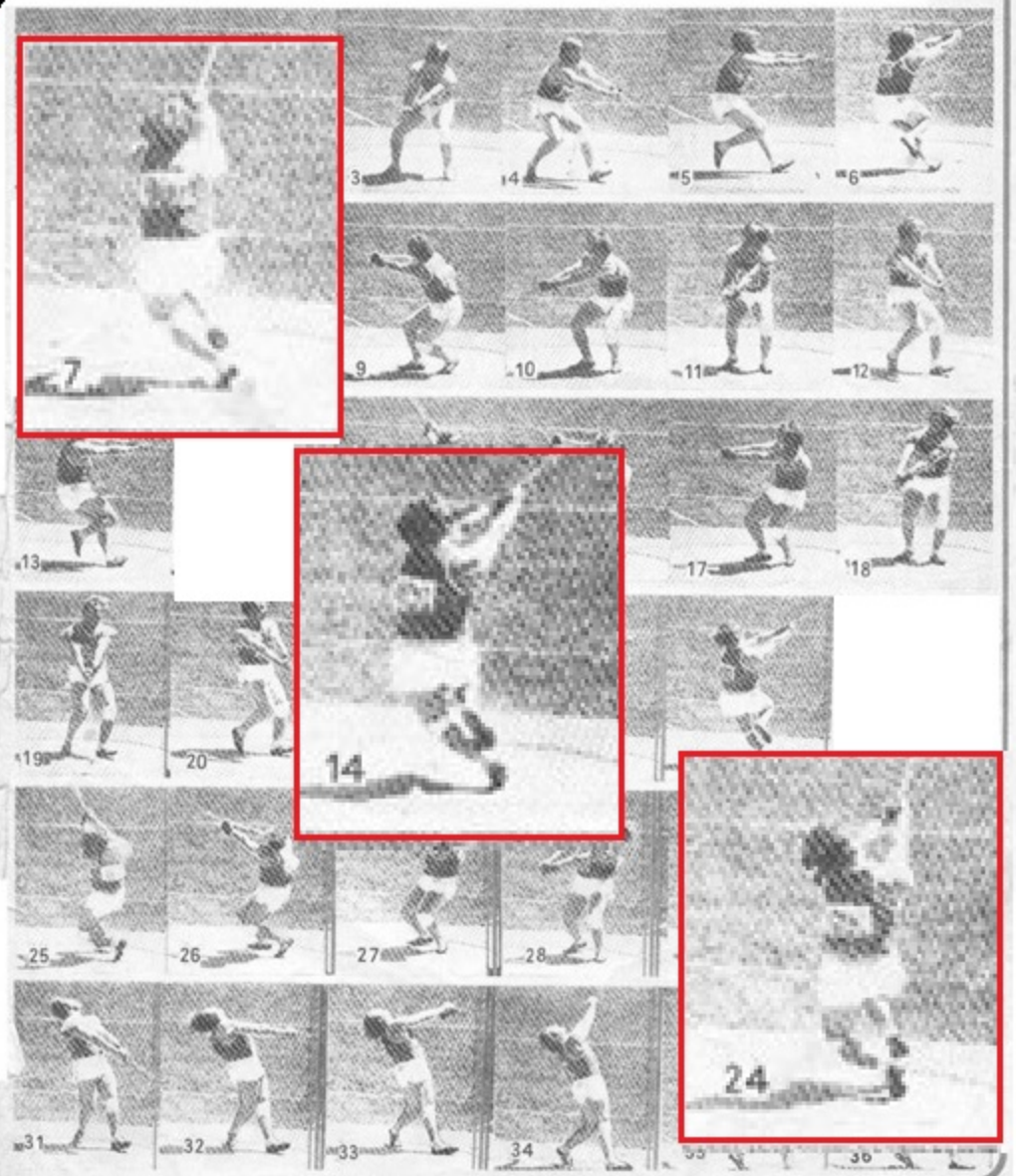

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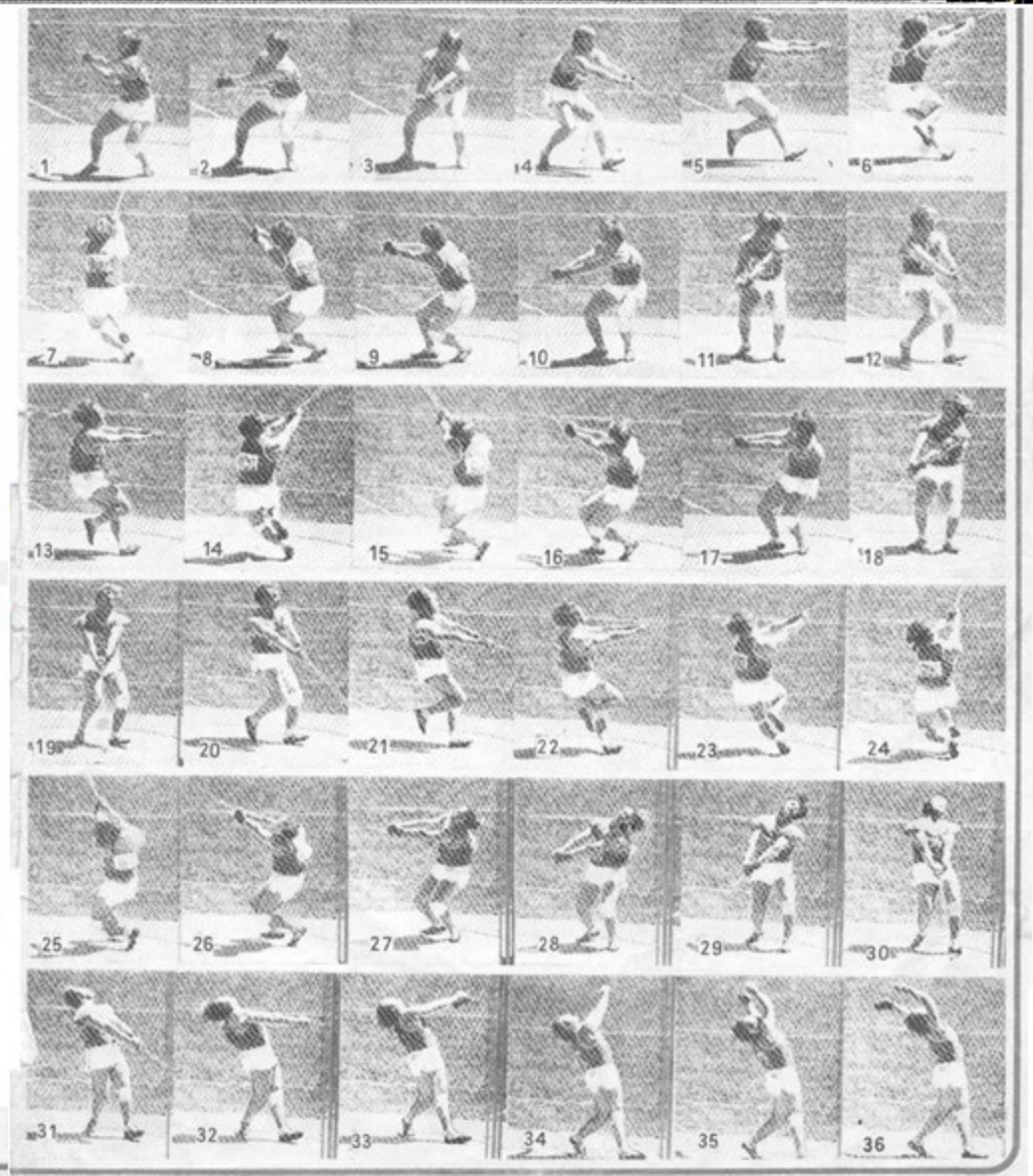

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