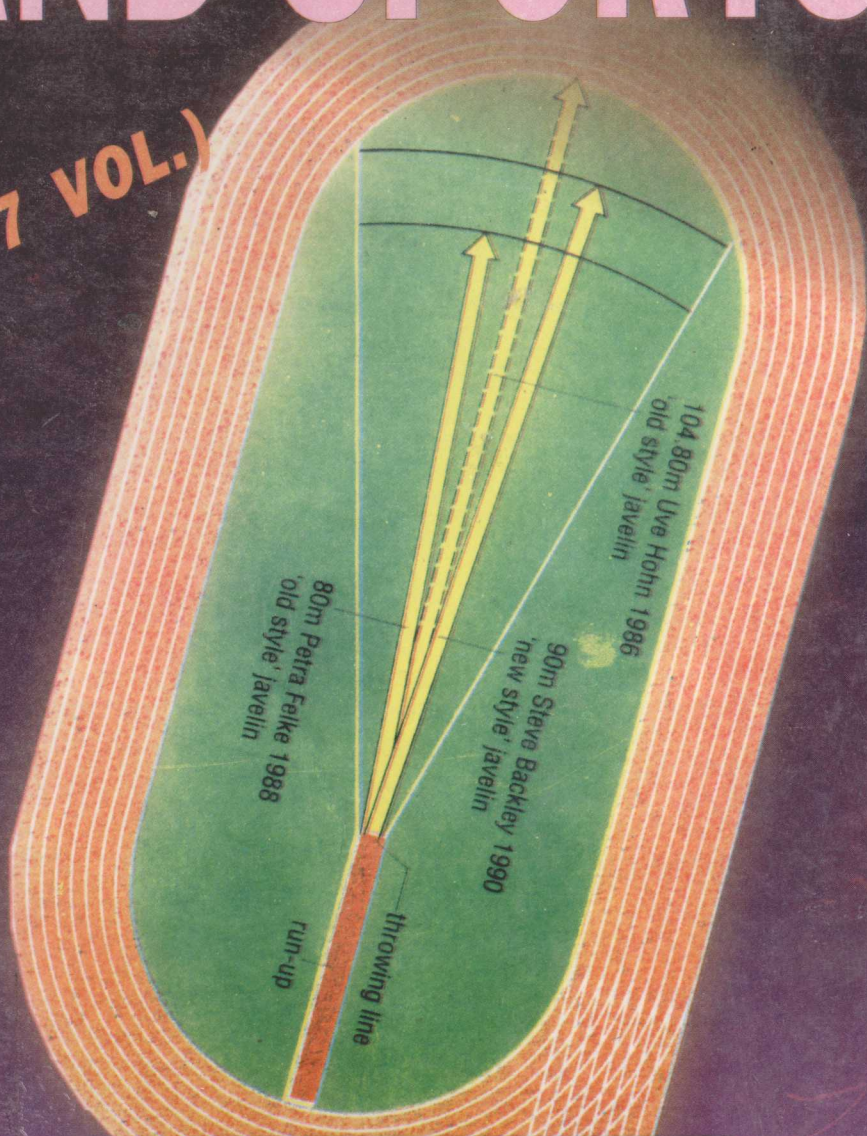


# RULES OF GAMES AND SPORTS

(IN 7 VOL.)



**SINKU KUMAR SINGH**

# **RULES OF GAMES & SPORTS**

**(In 7 Vol.)**

*Edited & Compiled by*

**SINKU KUMAR SINGH**

**JRF, UGC-NET, M.Phil., Ph.D (Flowed)**

**LECTURER & H.O.D. (PHYSICAL EDUCATION & SPORTS)**

**SHRI SANT SAWTA MALI GRAMIN MAHAVIDYALAYA**

**PHULAMBRI, AURANGABAD (MAHARASHTRA)**

**Vol. IV**

**KHEL SAHITYA KENDRA**

7/26, Ansari Road, Darya Ganj, New Delhi-110002

Phones: (O) 65190343. 43551324. 40564700

(Mobile) 9811088729 (Resi

E-mail: khelsa

Website: *url*

首都体育学院图书馆

726



XT20120208

*Published by:*

**KHEL SAHITYA KENDRA**

7/26, Ansari Road, Darya Ganj, New Delhi-110002

Ph.: (Off.) 65190343, 43551324, 42564726

(M) 9811088729, (R) 47091605 Fax: 011-42564726

E-mail: [khelsahitya1@rediffmail.com](mailto:khelsahitya1@rediffmail.com)

Website: [www.khelsahitya.com](http://www.khelsahitya.com)

© 2009 Publishers

I.S.B.N. – 81-7524-538-7

**PRINTED IN INDIA 2009**

All Rights Reserved

*No part of this publication may be stored in a retrieval system, transmitted, or reproduced in any way, including but not limited to photocopy, photograph, magnetic or other record, without the prior agreement and written permission of the publisher.*

*Laser Typeset by:*

Jain Media Graphics

Delhi-110035 (Mob.) 9911151534

*Printed by:*

New Gyan Offset Printers

Delhi-110035

**Price: Rs. 6500/- (In 7 Vol.)**

## **VOL. IV**

### **PART-XV**

#### **PLAY TRACK & FIELD**

##### **CONTENTS**

1. Introduction	1
2. Equipments	4
3. Sprinting	9
4. Middle Distance Running Events	16
5. Long Distance Running Events	20
6. Relay Racing	24
7. Steeplechase	33
8. Walking	36
9. Marathon and Cross-Country Running	39
10. Hurdling	43
11. Shot-Put	55
12. Discus Throw	61
13. Javelin Throw	66
14. Hammer Throw	72
15. High Jump	79
16. Long Jump	81
17. Pole Vault	83
18. Triple Jump	85
19. Combined Events: Decathlon and Heptathlon	87
20. Rules of the Game	89

### **PART-XVI**

#### **PLAY RUNNING**

##### **CONTENTS**

1. Running—An Overview	1
------------------------	---

2. Sprinting	8
3. Hurdling	33
4. Middle-Distance Running	52
5. Relay Racing	67
6. Steeplechase	85
7. Road Racing	98
8. Women Runners	112

## **PART-XVII**

### **PLAY THROWING**

#### **CONTENTS**

1. Throwing—An Overview	1
2. Hammer Throw	14
● Fundamentals of Hammer Throw	14
● Training Procedure	20
● How to Learn Hammer Throwing	22
● Training Program	23
● Weight Training Program	28
● Rules of Hammer Throw	30
3. Shot Put	35
● Handhold	35
● Important Techniques	46
● Work-outs Schedules	53
● Rules of Shot Put	57
● Review of Skills	59
4. Discus Throw	62
● Essentials of Discus Throwing	62
● Handle the Discus	63
● How to Throw Discus	69
● Fundamental Techniques	70
● Training Procedure	77
● Rules of Discus Throwing	80



● Review of the Skills	83
5. Javelin Throw	87
● Techniques of Javelin Throwing	88
● How to Learn Javelin Throwing	92
● Forms of Throw	96
● Learning Proper Release of the Javelin	100
● Rules of Javelin Throw	108
● Review of the Skills	110

## **PART-XVIII**

### **PLAY JUMPING**

#### **CONTENTS**

1. Some Facts About Track and Field Events	1
2. Historical Background of Jumping Event	4
3. High Jump Styles	13
4. More About High Jump's Technique	27
5. Teaching Techniques of High Jump	31
6. Techniques of Long Jump	37
7. Teaching Technique of Long Jumping	48
8. Make Long Jumping a Safe Event	57
9. Techniques of Triple Jump	59
10. Teaching Techniques of Triple Jump	68
11. Techniques of Pole Vaulting	72
12. Teaching the Techniques of Pole Vaulting	80
13. Rules of Jumping	93

## **PART-XIX**

### **PLAY WALKING**

#### **CONTENTS**

1. Walking—What and Why	1
-------------------------	---

2. Importance of Walking for Women	27
3. Proper Walking Posture	35
4. Essential Walking Apparel	53
5. Kinds of Walking	63
6. Race Walking	83
7. Useful Exercises for Walkers	95
8. Rules of Walking	107

## PART XVIII

### PLAY JUMPING

#### CONTENTS

1. General Facts about Jumping	107
2. The Importance of Jumping	110
3. The Various Kinds of Jumping	112
4. The Importance of the Feet in Jumping	114
5. Teaching Techniques of High Jumping	116
6. Techniques of Long Jumping	118
7. Teaching Techniques of Long Jumping	120
8. Making Jumping a Part of the Physical Education Program	122
9. Techniques of the Triple Jump	124
10. Teaching Techniques of the Triple Jump	126
11. Techniques of the Pole Vaulting	128
12. Teaching and Techniques of Pole Vaulting	130
13. Rules of Jumping	132

## PART XIX

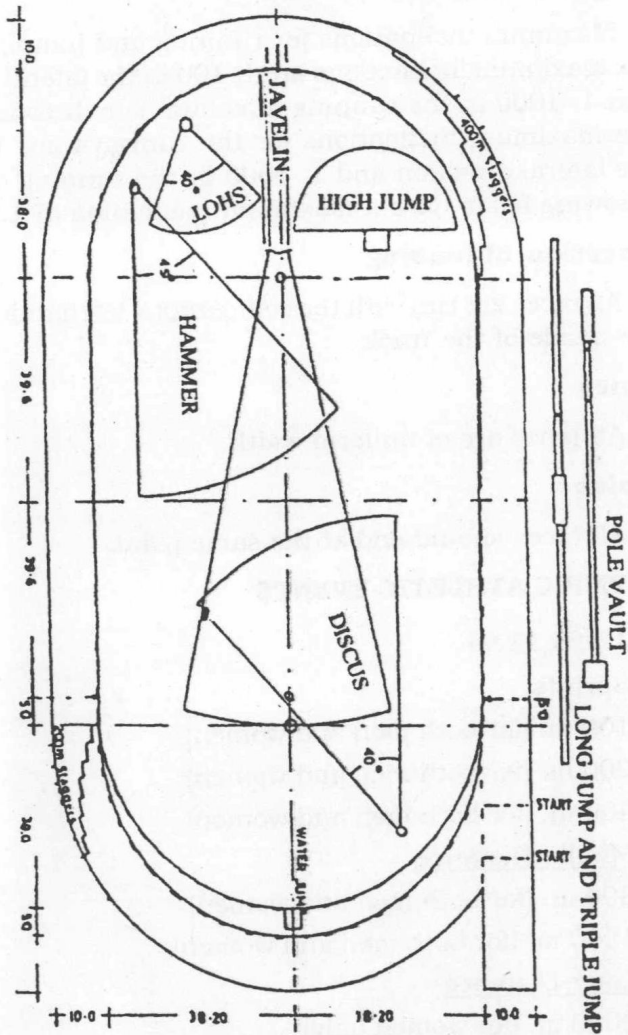
### PLAY WALKING

#### CONTENTS

Walking—What and Why

# 1

## INTRODUCTION





## **TRACK & FIELD**

Athletics comprises a wide range of events and demands a variety of different skills from its participants. There are two broad categories of athletic events—track and field. Track programs are made up of sprint, middle distance, relay, hurdle and walking events. Field programs include throwing events and jumping for distance and height. Also Marathon and long distance walking events take place outside the stadium on roads.

Maximum inclinations for running and jumping events the maximum inclinations are 1: 100 in the lateral direction and 1: 1000 in the running direction. For throwing events the maximum inclinations for the runways are 1: 100 in the lateral direction and 1: 1000 in the running direction; throwing fields have a maximum inclination of 1: 1000.

### **Direction of running**

All races are run with the competitors' left hands towards the inside of the track.

### **Lanes**

All lanes are of uniform width.

### **Finish**

All races should end at the same point.

## **OLYMPIC ATHLETIC EVENTS**

### Track races

#### Sprints:

100 m. (for both men and women)

200 m. (for both men and women)

400 m. (for both men and women)

#### Middle Distance

800 m. (for both men and women)

1500 m. (for both men and women)

#### Long Distance

3000 m. (for women only)

## **TRACK & FIELD**

5000m. (for men only)

10,000m (for both men and women)

### **Relays**

4 × 100 m (for both men and women)

4 × 400 m. (for both men and women)

### **Hurdles**

100 m. (for women only)

110m. (for men only)

400m. (for both men and women)

### **Steeplechase**

3000m. (for men only)

### **Road Races**

Marathon (for both men and women)

### **Walks**

10 km. (for women only)

20 km. (for men only)

50 km. (for men only)

### **Throwing Events**

Javelin (for both men and women)

Shot Put (for both men and women)

Discus (for both men and women)

Hammer (for men only)

### **Jumping Events**

High Jump (for both men and women)

Pole Vault (for men only)

Long Jump (for both men and women)

Triple Jump (for men only)

### **Combined Events**

Decathlon (for men only)

Heptathalon (for women only)

**2**

**EQUIPMENTS**

Clothing should be light and well fitting, but should allow maximum freedom of movement. The track suit should be loose and airy. Athletic clothing must be clean and so designed and worn as not to make an indecent display of the competitor's person. The shoes are the most important part of clothing of an athlete but it is important that he should pay attention to other items of his clothing-jersey, pants, warm-up suit, socks, and supporter. Spiked shoes may be worn in Steeple chases, comprising hurdles, and water jumps, but shall not be allowed in obstacle races.

An athlete must wear at least a vest and shorts which are clean and so designed and worn as not to be objectionable. The clothing must be made of material which is not transparent even if wet. Competitors may compete in bare feet or with shoes. The purpose of shoes is to give protection and stability to the feet and a firm grip of the ground.

**Dress**

Clothing must be clean, non-transparent, even when wet, and designed and worn so as not to cause offence.

**Numbers**

Competitors must wear numbers. In the high jump and pole vault competitors may wear one number on either

## **TRACK & FIELD**

their back or their front. Competitors in all other events must wear numbers on both their back and front.

An adhesive number for side of shorts may also be required, if photo finish is used.

### **Jersey**

The track jersey that an athlete wears should not be too tight or too boggy. If it is too tight, an athlete will feel uncomfortable very soon. If it is too loose it would get in the way an athlete's performance. It should be light and of washable material. With this in view, cotton or rayon is preferred. Normally the shirts are without sleeves. Some athletes prefer T-shirts. The T-shirts should be large enough to prevent binding under the arms.

### **Trousers**

The trousers as in the case of shirts and jerseys should be of light weight material and should be easily washable. The pants should not fit tightly at the waist and should not hamper free movement of legs. It is better to use an elastic waist than a draw string.

### **Warm-Up Suit**

An athlete has to get and keep himself warm. The warm-up suit is made of wool though it is a bit costly. Considering the cost some athletes use the cotton fleece-lined suits.

### **Socks**

Athletics do not have to wear socks but these can act as an extra cushion and make feet feel more comfortable. As an athlete feels greater freedom of ankle movement and as the feet become toughened, many athletes prefer not to wear them. If socks are used, they should better be of lightweight cotton. They should be white in colour as the

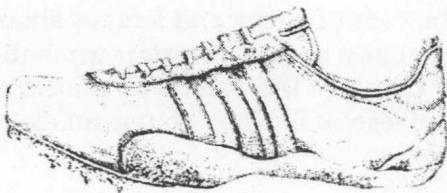
## TRACK & FIELD

colour or socks can cause infection because of the dye along with the perspiration getting into any cut or blister on the foot.

Heavy sweat woollen socks should be avoided except in long races. A little wax or soap can also be applied inside of the sock in long races to prevent blisters. For protection of the toes some athletes wear chamois "pushers". This also gives freedom to ankle movement.

### Supporter

Supporters are available in small, medium and large size. Supporters of exact waist size is also available but these are a bit costlier. The supporters should be comfortable and not fit tightly. These should be easily washable. A wet pouch is preferred by track athletes.



### Shoes

Shoes with a maximum of eleven spikes in the sole are worn for track running events.

The shoes are the most important part of dress of an athlete. These have been designed or developed keeping in view the conditions of play. There are some runners who land on their heels or land with inside edge of their foot. Some are road runners while others are walkers. Some have to do indoor work while others do cross country running.

The type of shoe to be worn depends on the nature of the event. It means a lot of difference in keen competitions. The shoes used by walkers are without spikes. Spikes are not of any use. Similarly spikes are not used in the shoes

## TRACK & FIELD

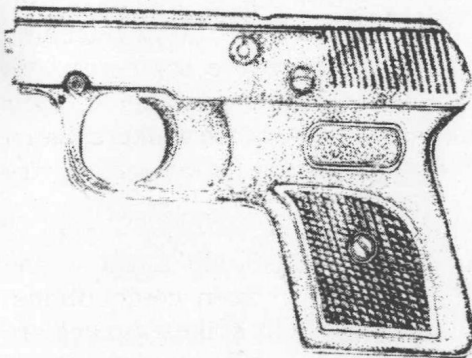
for indoor work and cross-country running. In case of the latter, part of the course is on pavement. So, in their case the spikes are prohibited or serve no purpose. The shoes in such cases are similar to the leather shoes. The shoes of road runners have been developed keeping in view the stress being faced by them. These are made of strong canvas and soled with crepe-rubber. The shoes used for track events are light weight with spiked soles which provide best grip and speed on the track. The maximum number of spikes fixed in the sole should be eleven. However, in most of the cases the front sole has six spikes. These are fixed relatively close to the centre. Some fast runners prefer shoes with only four spikes. The athlete feels light and has to drag less.

Shoes for Shot Put Events should be without spikes since a concrete surface is recommended for within the circle.

Shoes for Javelin Throw Events should have sole and heel spikes. A maximum of eleven spikes with a maximum 12mm length and 4mm diameter is permitted.

Shoes without spikes should be worn for both discus and hammer throw events.

Shoes with heel spikes and plastic heel cups are recommended for high jumping events.



For triple jumping events, the shoes with heel spikes are recommended for use on grass. Plastic heel cups may be used to protect the heel bones.



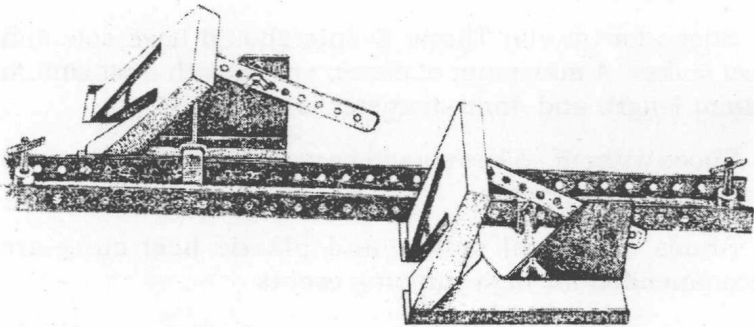
## TRACK & FIELD

### Pistols

Races are started by the report of a pistol or similar apparatus, fired upward into the air.

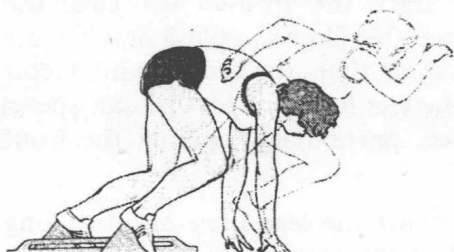
### Starting Blocks

Starting blocks may be used in individual races up to and including 400 m and by the first runner in relay races. They must be constructed entirely of rigid materials. They may be adjustable, but must be without springs, or any other device whereby the athletes might obtain artificial assistance. Athletes in the set position must have both hands in contact with the track.



3

## SPRINTING



### **Sprint starting**

The fundamental purpose of sprint starting is to be able to accelerate the body mass with the greatest possible efficiency. The legs generate the power to accelerate the body mass. This leg power must not be dissipated. A runner performing a fast start is similar to a sports car starting in bottom gear. The tread on the tyres which causes friction with the road surface is replaced by the spikes on the running shoe. The starting blocks also help to prevent the sprinter from getting 'wheel spin'. In accelerating the human body, the legs must operate in such a way as to work beneath and behind the body mass. During acceleration it is a simple but important point to realise that the body must be tilted forwards. In a good starting position the body must be 'set' in such a position that when the gun is fired the legs are able immediately to exert force to drive the body down the track.

### Block spacings

Much experimental work has been done in recent years in an attempt to determine the most effective starting position. Mostly this work has been concerned with the forces applied against the starting blocks at various foot spacings. None of the experiments is 100% perfect, and

## TRACK & FIELD

discerning coaches will continue to use certain of this information but rely on their 'look' of the situation and the feel of the individual sprinter when setting him up in blocks.

From the work of Franklin Henry in the USA it would seem that a 'medium' spacing of the feet, i.e. about 16 inches between blocks, produces a mechanically sound action. The feet are too close together in what was once called 'bullet' or 'bunch' start, the sprinter will clear the block quickly, but because the forces applied against the blocks operate for only a short time, the acceleration factor is less impressive. With the feet further apart he can spend more time applying force, particularly against the front block.

If the feet are too far apart the legs have an even long time in which to work, but the movement is slower. One must, therefore, find for each individual an optimum spacing which will balance speed and work; 16 inches 40 cms seems to be a reasonable mean, although in practice the majority of sprinters prefer an inch or two less than this. Strangely enough it doesn't seem to make a great deal of difference if the athlete is tall or short, a variation of only an inch or two either way soon produces a sound position. One further conclusion of Henry's work is worthy of mention: 'Although the rear leg develops considerably more force than the front, the latter contributes twice as much to the block velocity because its impulse is of longer duration'.

It is usual nowadays for sprinters to have their own blocks which are either home-made and tailored to the needs of the individual or are commercially produced and then adapted. The angle which the face of the front block makes to the ground should be  $60^{\circ}$ , the rear block  $85^{\circ}$ .

The face of the blocks should be cut away to enable the spikes to go through them so that the sole of the shoe can press against the block's face. The blocks must be rigid and firmly fixed into the track. When starting on a cinder