

Technical devices of improvement the technical, tactical and theoretical training of fencers

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Abstract:

Proposed new training means for improving the technical, tactical and theoretical training that contribute to the growth of sports results in fencing: Simulator "TTT", which is recommended to improve the specialized technical and tactical skills of fencers on the basis of improvement of tactical thinking and specific knowledge. "Device for technical and tactical training of fencers" for improving the specialized technical and tactical skills of athletes. "Device for technical training of fencers" to improve the technical skills of fencers on the basis of improvement of specialized the feeling of the weapon.

Key Words: Fencing, technical devices, technical and tactical training, theoretical training.

Introduction

Evolution of competitive activity in fencing identifies changes in training system of fencers [8,9]. The current level of development of fencing, which is characterized by the intensification of competitive activity requires improvement of various aspects of training of high-qualified athletes. Current trends in fencing shows, that wins team or athletes, who quickly and effectively introduces new scientific developments and appropriately responds to evolutionary changes in the sport by the correction of individual aspects of training athletes, including technical, tactical and theoretical [4,5,8,9].

Thus, in modern conditions the development of fencing, to ensure a high level of sporting achievement arising high demands on the training level of fencers. Due to the impossibility of increasing training sessions there is need to improve the process of preparing fencers with the latest means for the development of all round of preparedness fencing that had not been used during training. Among these means significant impact on the improvement of various aspects of preparedness fencers are committing the technical devices [1,2,3].

Analysis of recent research and publications.

In recent years, conducted researches which were focused on issues of technical and tactical training fencers, mentioned the objective changes in the technical and tactical arsenal of fencers in terms of competitive activity (Shevchuk 2010, Bakum Sergienko 2011, Roschin 2007). Also, researches have touched on physical training fencers (Khokhla , Lynets, Voytovych 2010., Kriventsova 2010), the pedagogical value of fencing (Kriventsova 2009., Ermakov , Kriventsova 2010) theoretical training fencers (Zadorozhna, Briskin, Pityn 2012), the history of fencing (Busol, Demina 2010, Kiselev, Sadowski, Gryschenko 2009). However, these researches have not paid attention to improving the process of preparing fencers through application of technical means and fitness devices in the preparation of fencers. Thus, at the present stage of development of fencing, obtaining a high level of skills is impossible without modern equipment, which is a technical devices.

The aim of the research. To characterize the technical devices of training athletes in fencing.

The object of research. The system of training in fencing.

The subject of the research. The technical devices for the technical, tactical and theoretical training of fencers.

Results

The intensification of competitive activity in fencing and general trends of increasing sporting achievements have led to necessity of development technical devices for improving the process of technical and tactical training of highly skilled fencers. In recent years, have been invented methods of fencing training and training devices for technical and tactical training ("Tyshler's Simulator (TTD)»and «Favero Fencing Target»), that were aimed to improving motor actions and to solve situational tasks of competitive activity [1,2,3,9]. However, these methods and training devices do not consider opportunities for increasing of specialized feeling of weapons, based on changing the center of mass of the blade, also does not take into account the need to

increase the amount of operational information that should be received and processed to form the responses to fighting actions of opponents and do not consider the possibility of using variable parameters in training and competitive activity of anthropometric characteristics of opponents (height, length and the ratio of parts of the body). Thus to ensure an effective process of technical and tactical and theoretical training of highly skilled fencers we have developed new devices and simulators. One among these devices is a simulator "TTT"[2].

The simulator refers to physical education and sport and is intended for enhance the level of specialized technical and tactical skills of fencers on the basis of improvement of tactical thinking and specific knowledge. The simulator allows to improve the quantitative and qualitative indicators of technical, tactical and theoretical training and their implementation in competitive activity, reduce time that spends for perception, processing operational information which is the basis of the formation the responses to actions of opponents in fencing. A totality sign of technical result allows, in generally, improving level of skills of fencers, including technical, tactical and theoretical, that will ensure the increase of achievements in competitions. The simulator can be used as a separate component of the training exercise or set of exercises in the system of long-term training in various types of training fencers in different kinds of weapons.

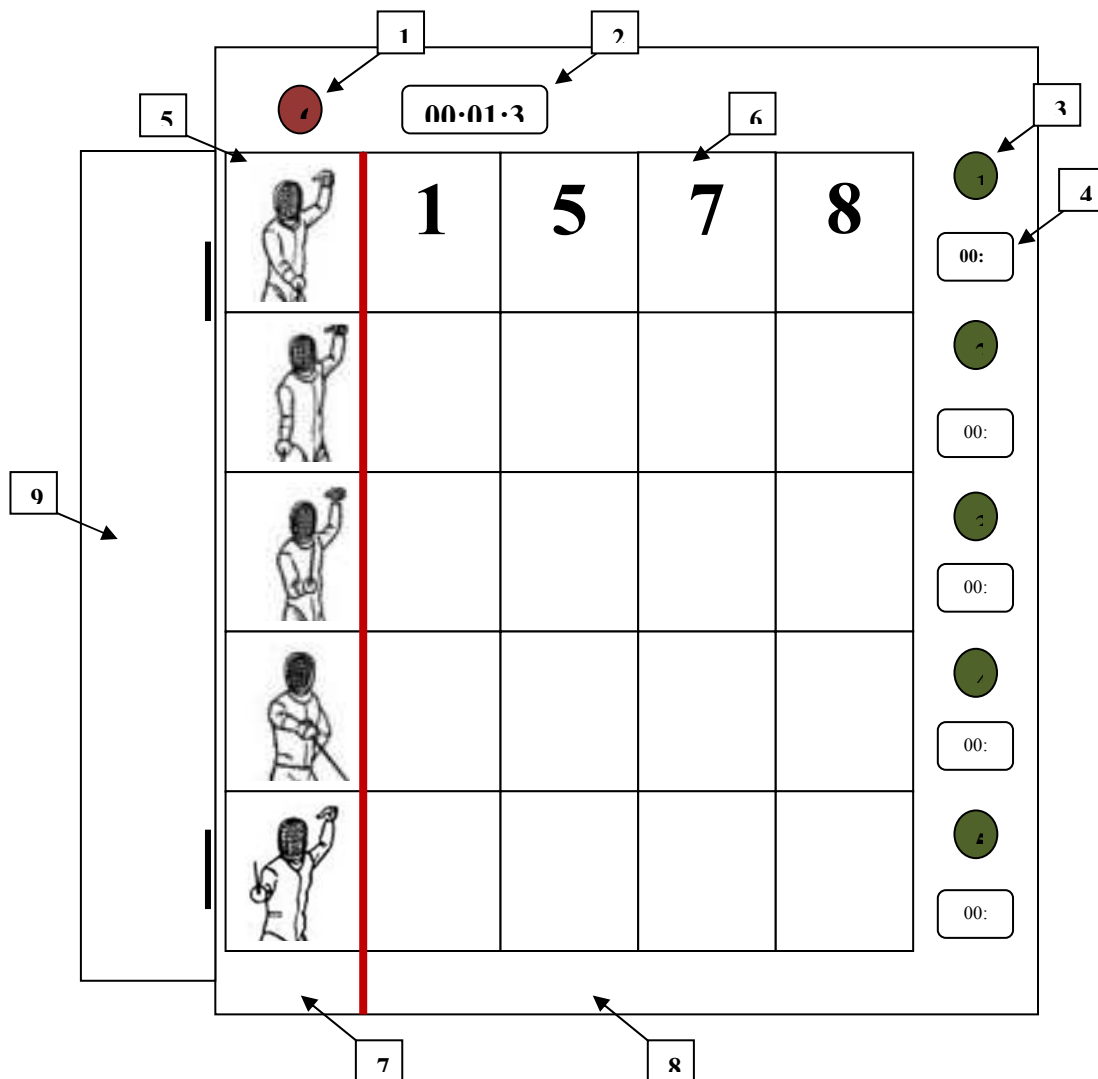


Fig.1. Simulator "TTT". 1 – The start button for complex of tasks; 2 - An indicator of the total execution time of complex tasks; 3 - Stop button for completed tasks (each individually, only 5); 4 - The time in the task (for each individual, only 5); 5 - An image that is specified for the job (one for each task); 6 - The image that selected by the athlete to respond to the task (one for each task); 7 - Taskbar (estimated at 5 tasks Images); 8 - panel responses (generated by four possible answers to each of the five tasks); 9 - The cover of the taskbar that lets you prevent premature perception of information from images.

Using the simulator "TTT" is aimed at solving problems of increasing levels of quantitative and qualitative parameters of implementation specialized technical and tactical actions of fencers based on the

formation of specific theoretical knowledge of a given algorithm of intellectually-developmental tasks. Simulator for improvement of complex technical, tactical and theoretical training of fencers is a vertical platform, in which placed the taskbar (estimated at 5 tasks), the cover the taskbar (which allows to prevent premature perception information from images) panel of responses (generated for four possible answers to each of the five tasks), button to start of complex of tasks, an indicator of the total execution time of complex of tasks, the stop button for completed tasks (for each separately, only 5), time indicator of the task (for each separately, only 5). There are attachment of two sets of cards, one of which contains intellectually developmental tasks of technical, tactical and theoretical training in fencing, and the second - the answers to them. (Fig.1.).

The basis of the use of simulators (examples 1, 2 and their modifications) assigned consistent solution by sportsman five intellectually developmental problems by choosing the right options. At the same time occurs the fixation specific tasks and their complex.

Option 1: intellectually developmental tasks of technical, tactical and theoretical training of fencers on the theme: "The positions in fencing." Algorithm:

1. Acquaintance with meaning of the exercise.
2. A Location on the taskbar five cards with the tasks, which shows the types of positions in fencing. Before the signal the coach "Start" task is closed by a cover to the taskbar, which allows you to prevent premature perception information from images.
3. A Location on the panel of answers cards with multiple choice (four possible answers to each of the five tasks) that contain the names of positions in fencing.
4. The signal of coach "Start" after which the athlete takes off cover of taskbar and light of total execution time of complex tasks turns on .
5. Choosing by athlete correct answer for each of the five tasks (selecting names shown position in fencing) with a push button to stop the executed task.
6. Analysis of the flow of the game by checking the correctness of answers and comparison of results (time) of performance of each of the five tasks and complex.

Option 2: intellectually developmental tasks of technical, tactical and theoretical training of fencers on the theme: "The fighting actions and counteractions in fencing" Algorithm:

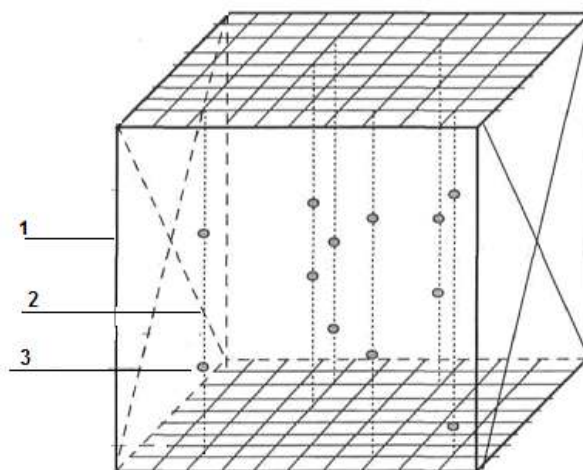
1. Acquaintance with meaning of the exercise.
2. A Location on the taskbar five cards with the tasks, which shows the types of positions in fencing. Before the signal the coach "Start" task is closed by a cover to the taskbar, which allows you to prevent premature perception information from images.
3. A Location on the panel of answers cards with multiple choice (four possible answers to each of the five tasks) that contain the images of the fighting actions and counteractions in fencing.
4. The signal of coach "Start" after which the athlete takes off cover of taskbar and light of total execution time of complex tasks turns on .
5. Choosing by athlete correct answer for each of the five tasks (selecting counteraction for shown action in fencing) with a push button to stop the executed task.
6. Analysis of the flow of the game by checking the correctness of answers and comparison of results (time) of performance of each of the five tasks and complex.

The proposed simulator for technical, tactical and theoretical training of fencers allows to improve qualitative and quantitative, technical, tactical and theoretical skills and overall athletic performance by reducing the time spent on the perception of specific information processing and forming responses to the actions of opponents, increasing of scope of operational information in the tactical thinking of fencers.

Simulator "TTT" was created for the improvement of both the complex technical, tactical and theoretical training fencers. However, for effective integrated improvement all round training fencers required a high level of each of these parties separately. Achieving a high level of technical and tactical and theoretical skills is possible through the use of means and devices aimed at improving the preparedness of these parties separately . Among these means is a device for the technical and tactical training fencers. [1] which was created for using in training variable parameters of competitive activity and anthropometric characteristics of opponents (height, length and value parts of the body).

The device is intended to improve the specialized technical and tactical skills of fencers, that through this device can be improved qualitative and quantitative indicators of training, reduce time adequate decision-making in accordance with the terms of competitive activity and anthropometric parameters of the opponent. The device can be used for a single training exercise or set of exercises in different types of weapons in fencing in the program of Olympics Games and Paralympics Games. The basis of the model of the device useful for technical and tactical training of fencers tasked to increase, quantitatively and qualitatively, the level of parameters of performing specialized movements of the algorithm given motor task.

Solving the problem is that the device for technical and tactical training of fencers has the general structure of training means containing known analogues of exercises, in accordance with utility model, the device is a simulator, which is a modular cube, which sets the vertical directionists, which, as lesioning objects set roller targets that are mobile, allowing the change of location, the order and sequence of lesions simulating individual parameters of competitive activity and anthropometric characteristics of the opponents. Use the product for technical and tactical training of fencers provides location at competitive track simulator that provides a direct demonstration of the objective conditions of a training task. The essence of the utility model is shown in the drawing, which shows scheme of the device (Fig. 2.).



*Fig.2. Device for technical and tactical training of fencers. 1. - Precast cube
2. - Vertical regulating rod 3. - A moving target*

Fencer receives from coach algorithmic task that is successively performing pricks in different sectors of the device that are located in line with anthropometric characteristics and style of fight of conventional opponent.

The proposed device for technical and tactical training of fencers allow take account the anthropometric characteristics of opponents, to bring the terms of training to conditions of real competitive activities and improve the training process.

Technical and tactical training consists of two integral parts that are interrelated technical and tactical. The high level of tactical skills is impossible without extensive technical arsenal of fencer and skills to perform technical actions in their application in competitive activities. Technical training provides a platform for further improvement of tactical and achieving a high level of technical and tactical skills in the complex. So to achieve a high level of tactical skills and technical and tactical skills in general there are need to focus, during training fencers, on the technical training. For better technical improvement during training of fencers is necessary to apply assistive technical devices. Thus, we propose "Device for technical training fencers" [3].

The device is designed to improve the technical skills of fencers based on improving the specialized feeling of weapons. The device allows to improve the quantitative and qualitative indicators of technical training and their implementation in terms of competitive activity, reduce time spent on technical performance in fencing action by improving the special feeling of weapons.

The set features of the technical effect can improve the level of technical preparedness of fencers, including providing increase sports results in competition.

The device can be used as a separate component of training exercise or set of exercises in the system of long-term training in various types of weapons.

The basis of device is a metal cylinder that, can be moved by the blade and fix by the screw-clamp if will be necessary to regulation of mass center of weapon. On the basis (cylinder) mounted four multidirectional cores (tubes) with the length 120 mm, outer diameter 5 mm) and an angle of between 90 °. At the proximal end of the core (tube) attached the weighting compounds of different weights, which are selected according to age, gender and skill athletes fencers. (Fig. 3).

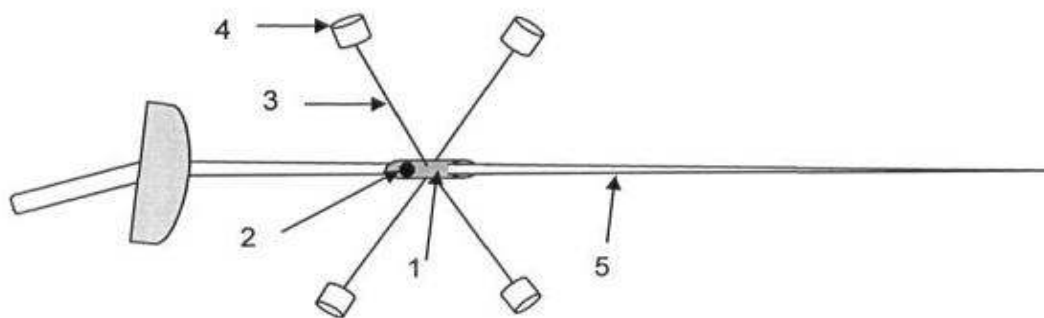


Fig. 3. Device for technical training fencers. 1. - Metal cylinder; 2. - The hole for the blade; 3. - Tube of weighting compound; 4. - Weighting compound; 5. - The blade.

Fencer receives from coach the algorithmic task that consists in the performance of a specially-preparatory and training forms of competitive exercises, and the device with pre-dosed and picked up loading is placed on the blade of weapon. Thus, the use of the device is aimed at solving problems of improvement of specialized technical skills of athletes fencers in performing a training exercises or competitive exercises for improving the technical skills.

Thus technical devices are designed to optimize the training process of fencers for different types of weapons and at different stages of long-term training. Training devices can be used in certain training exercises and also can be involved in the set of exercises that used in training. Devices designed to improve the various aspects of skills of fencers comprehensively and separately.

Conclusions

The modern growth of results in fencing led to the necessity for new training tools for the technical, tactical and theoretical training of fencers that can be seen in the creating of technical devices and simulators.

There are proposed a new training means for improving the technical, tactical and theoretical training that contribute to the growth of athletic performance in fencing:

Simulator "TTT", which is recommended to improve the specialized technical and tactical skills of fencers on the basis of improvement of tactical thinking and specific knowledge.

Device for technical and tactical training fencers' - for improvement of specialized technical and tactical skills of fencers on the basis of qualitative and quantitative indicators of training, the reductions time for the adoption of adequate decision in accordance with the terms of competitive activity and anthropometric parameters of opponents.

Device for technical training fencers' - for improving technical skill of fencers on the basis of improvement of the feeling of specialized weapons.

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