The invention relates to a defensive construction and it will be applicable in the military and defense industry, particularly with regard to defensive constructions, designed for defense of service men, for example at a checkpoint. The mountable and demountable protective construction includes basic blocks (1) and angled blocks (2), tightly connected to each other in horizontal and vertical rows, to which outer block walls handles (14) are mounted and plates (10) are fixed by means of fasteners (13), situated in threaded holes (12) of the blocks and threaded holes (11) of the plates (8). Each of the blocks (1, 2) consists of three rectangular parallelepipeds (3, 4, 5), while the middle of them (4) is offset by one pitch in horizontal and vertical direction, whereby the parallelepipeds (3, 4, 5) are connected to each other in such a way, that groove (6) and tongue (7) are formed, and the so shaped blocks comprise hollow casings, formed by the outer parallelepipeds (3, 5) and a protective casing with ballistic filler, formed by the inner parallelepiped (4) with an opening (8), whereby one of the hollow casings of the angle profile (2) is bended at an angle of 90 degrees, and the other one is situated in such a way, that a vertical opening (9) is formed.
FIELD OF THE INVENTION

The invention relates to a defensive construction and it will be applicable in the military and defense industry, particularly with regard to defensive constructions, designed for defense of servicemen, for example at a checkpoint.

BACKGROUND OF THE INVENTION

Protective constructions are known, which in particular are built of concrete. A disadvantage of the protective constructions of that kind is the impossibility of their multiple use, because they are not scheduled for transportation, but they are established on site from delivered or local building material.

Protective constructions are also known, which are constituted of diverse concrete blocks, designated for the construction of various facilities. A disadvantage of using the known concrete blocks for the setup of mountable and demountable protective defensive constructions is that a mortar is required to joint the blocks to each other, precluding the possibility of quick setup and also quick dismounting of the construction, which is very important on its own in the event of military action.

Protective constructions are also known, which are constituted of placed one above the other large-sized blocks, without any mortars to be applied. Using of protective constructions of such kind is unacceptable because of the slits (openings), which are formed during the erection without
adapting blocks to each other, whereby the construction is unable to fulfill its defensive function.

DISCLOSURE OF THE INVENTION

The task of the present invention is to create a protective construction, which possesses enhanced operational characteristics and high reliability. The task is solved by the proposed mountable and demountable protective construction, which includes according to the utility model basic and angled blocks, tightly connected to each other in horizontal and vertical rows, which outer walls handles are mounted and plates are fixed to. Fixing of plates is effected by means of fasteners, situated in threaded holes, which are formed on the blocks and on the plates. Each of the basic and the angled blocks consists of three rectangular parallelepipeds, while the middle of them is offset by one pitch in horizontal and vertical direction, whereby the parallelepipeds are connected to each other in such a way, that tongue and groove are formed. The so shaped blocks comprise hollow casings, formed by the outer parallelepipeds, and a protective casing with ballistic filler, formed by the inner parallelepiped, with an opening on the upper surface, while one of the hollow casings of the angle profiles is bended at an angle of 90 degrees, and the other one is situated in such a way, that a vertical opening is formed. According to one embodiment of the utility model, the casings of the basic and the angled blocks of the mountable and demountable protective construction are made of welded flat and/or bended metal sheets, without longitudinal welds.
In accordance with a further embodiment of the utility model, some blocks of the mountable and demountable protective construction are executed with one or with two handles. According to another embodiment of the utility model, the protective block casing of the mountable and demountable protective construction is fully or partially filled with reinforced or non-reinforced protective ballistic material.

The offered mountable and demountable protective construction is distinguished by its enhanced operational characteristics and high reliability, characterized by the accelerated mounting and dismounting of the construction, as well as by the reliable protection against bullets, small-calibre projectiles and projectile splinters, owing to the lack of openings (slits) from one side to the other side.

EXPLANATION OF THE ATTACHED FIGURES

An exemplary embodiment of the present invention is shown in the attached figures explaining it, but not limited to, where:

Figure 1 represents a schematic diagram of a section of the mountable and demountable protective construction;

Figure 2 and Figure 3 depict a schematic diagram of a basic block of the mountable and demountable protective construction;

Figure 4 and Figures represent a schematic diagram of an angled block of the mountable and demountable protective construction;

Figure 6 illustrates a schematic diagram of a wall section of the mountable and demountable protective construction.
EXEMPLARY EMBODIMENT OF THE INVENTION

The mountable and demountable protective construction according to the enclosed Figure 1 includes basic blocks 1 and angled blocks 2, tightly connected to each other in horizontal and vertical rows. Each one of the blocks 1 and 2 consists of three rectangular parallelepipeds 3, 4 and 5, while the middle of them 4 is offset by one pitch in horizontal and vertical direction, whereby the parallelepipeds 3, 4 and 5 are connected to each other in such a way, that tongue 7 and groove 6 are formed (Figure 2 and Figure 3). The so shaped blocks 1 and 2 comprise hollow casings, formed by the parallelepipeds 3 and 5, and a protective casing with ballistic filler, formed by the parallelepiped 4. The protective casing is filled with ballistic material through the opening 8, which is designated for that purpose.

One of the hollow casings of the angled profile 2 is bended at an angle of 90 degrees, and the other one is situated in such a way, that a vertical opening 9 for angle joint is formed. The so shaped angle profile 2 may be left or right, depending on its function (Figure 4 and Figure 5).

The casings of the basic and the angled blocks 1 and 2 are made of welded flat and/or bended metal sheets, without longitudinal welds.

The blocks 1 and 2 are connected to each other by means of metal plates 10, through inserting the fasteners 13 into the openings 11 of the plates 10, and into the openings 12 of the blocks 1 and 2 (Figure 6). The openings 12 of the blocks 1 and 2 do not pass from one side to the other side of the blocks and they can be prepared on the site of mounting the protective construction, or during the manufacturing process of the blocks 1 and 2. All blocks 1 and 2, or some of them, can be produced with
carrying handles 14. The handles 14 are executed in the form of hooks, which are welded to the metal casings of the blocks 1 and 2.

The process of mounting the protective construction takes place in the following way:

The blocks 1 and 2 are delivered to the place of mounting the protective construction and they are connected to each other through placing the tongues 7 of the blocks into the respective grooves 6 of the adjacent blocks, without any openings (slits) to be formed between them. Left and right angle profiles 2 are used to form the corners. The blocks 1 and 2 are connected to each other by means of plates 10. The mountable and demountable protective construction ensures reliable protection against bullets, small-calibre projectiles and projectile splinters, owing to the lack of openings (slits) from one side to the other side.

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Literature:
1. O.D. Kulabuhov: "Mounting Ferro-concrete Fortification Constructions" — Moscow, Military publisher "Voenizdat", 1963;
CLAIMS

1. Mountable and demountable protective construction, characterized in that it includes basic blocks (1) and angled blocks (2), tightly connected to each other in horizontal and vertical rows, to which outer block walls (1 and 2) handles (12) are mounted and plates (8) are fixed by means of fasteners (11), situated in threaded holes (9) of the blocks (1 and 2) and threaded holes (10) of the plates (8), and each of the blocks (1 and 2) consists of three rectangular parallelepipeds (3, 4 and 5), while the middle of them (4) is offset by one pitch in horizontal and vertical direction, whereby the parallelepipeds (3, 4 and 5) are connected to each other in such a way, that tongue (7) and groove (6) are formed, and the so shaped blocks (1 and 2) comprise hollow casings, formed by the outer parallelepipeds (3 and 5), and a protective casing with ballistic filler, formed by the inner parallelepiped (4) with an opening (6), whereby one of the hollow casings of the angle profile (2) is bended at an angle of 90 degrees, and the other one is situated in such a way, that a vertical opening (7) is formed.

2. Mountable and demountable protective construction according to Claim 1, characterized in that the casings of the blocks (1 and 2) are made of welded flat and/or bended metal sheets without longitudinal welds.

3. Mountable and demountable protective construction in accordance with Claims 1 and 2, characterized in that some of the blocks (1 and 2) are executed with one or two handles (12).
4. Mountable and demountable protective construction according to Claims 1, 2 and 3, characterized in that the protective casing of the blocks (1 and 2) is fully or partially filled with reinforced or non-reinforced protective ballistic material.
Fig. 6
A. CLASSIFICATION OF SUBJECT MATTER

INV. F41H5/24 F41H5/013 F41H5/04

According to International Patent Classification (IPC) or both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

F41H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Date of the actual completion of the international search

12 October 2016

Date of mailing of the international search report

20/10/2016

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Kasten, KI aus

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