

МПК В05В17/08

Decorative Marine fountain "Drawing Breakwater" (Electronic translation)

РОССИЙСКАЯ ФЕДЕРАЦИЯ

**ПАТЕНТ**

НА ПОЛЕЗНУЮ МОДЕЛЬ

№ 102906

**ДЕКОРАТИВНЫЙ МОРСКОЙ ФОНТАН "РИСУЮЩИЙ  
ВОЛНОРЕЗ"**Патентообладатель(ли): *Пращурович Борис Анатольевич (RU)*Автор(ы): *Пращурович Борис Анатольевич (RU)*

Заявка № 2010146274

Приоритет полезной модели **13 ноября 2010 г.**Зарегистрировано в Государственном реестре полезных  
моделей Российской Федерации **20 марта 2011 г.**Срок действия патента истекает **13 ноября 2020 г.***Руководитель Федеральной службы по интеллектуальной  
собственности, патентам и товарным знакам*

Б.П. Симонов



М.

The invention relates to water and decorative structures and devices, namely, to the fountains. It can be used for decorative ornaments and attractive coastline of the seas in the towns and other populated areas, while ensuring its protection from the elements and actions to improve protection of the coast from strong waves.

A device containing a vertical pipe at the upper end of which is placed a cap, made in the form of a cup, open end facing down the tubes, while a glass enclosure attached to the ball bearing fixed to the pipe in the bottom of the cup on the periphery of performed two series of through holes, on the inner surface of the glass fixed blade with the ability to change the angle of rotation about the axis of the tube, which secured additional glass with an annular gap relative to the sidewall of the cup, the cup holes inside the annular gap attached tube [RU 2381076, C1, B05B17/08, 10.02.2010].

The disadvantage of this device is relatively high power consumption and relatively narrow features.

The closest in technical essence to offer is a device containing interconnected system of collection and delivery of water from the reservoir, water pumps and a group of shapers of the jets of water as the working field of the fountain with nozzles, which form the geometry of the fountain, as well as the power supply system, a system of management of the fountain , And, in front of some attachments or group of nozzles mounted valve flap made in the form of solenoid valves, intake system and water supply consists of the pipes are hermetically connected to each other using releasable connections, the working field is a fountain figure of regular geometric forms, and attachments are located on the perimeter this figure, as well as compact and linear groups within it [RU 61598, U1, B05B17/08, 10.03.2007].

The disadvantage of this technical solution is also relatively high power consumption and relatively narrow features.

The required technical result is to reduce energy consumption and increase functionality.

The required technical result is achieved that, in the device containing the system of collection and water supply, a group of shapers of water jets and throttle valve, intake system and the water embodied in the form of coastal structures, having from the sea smooth surface with the shape of the cross-section, which varies smoothly in the direction of the coast from near-horizontal at the bottom of coastal structures to vertical in the upper part of the coastal construction, and, in the upper part of the coastal

structures perpendicular to the surface of the sea has consistently placed flap valve, for each of them equipped with the proper conditioners water jets made, at least, single-channel.

In addition, the required technical result is achieved that, the damper valve in the form of spring-damper, and on the sides of the outer surface of the pier made directing side.

Fig. 1 - Decorative fountain marine, general view;

Fig. 2 - Valve damper (for 2 valves);

Fig. 3 - Generators jets of water (4 layers);

Fig. 4 - Four former of jets of water (in section).

Decorative fountain sea contains a sampling system and water supply, made in the form of the protective hydraulic structures (pier) Slope type of concrete or reinforced concrete of the array, which has over the sea smooth surface 2 with the form (in cross section) which varies smoothly in the landward side of the close to horizontal in the lower part 3 of the breakwater to the vertical in its upper part 4.

In addition, in the upper part 4 of the pier is perpendicular to the surface of the sea has consistently placed flap valve 5, for each of them equipped with the proper conditioners six water jets carried out, at least single channel.

When performing the shapers 6 water jets single channel, they can be manufactured as a hollow vessel, open to entry of sea water that penetrates through the valve flap 5, and narrowed the output for the formation of a narrow stream received from the pressure of the jet.

Throttle valve 5 may be in the form of spring dampers, which are deflected by the pressure created by the wave. Moreover, by configuring the spring, opening the valve flap 5 are at different pressures and, consequently, their opening occurs with different delays with respect to the wave front.

If conditioners six water jets to perform multi-channel, for example, a four, then performing channels 7 different configurations, as shown in FIG. 4, we can get a few, in the particular case of four of the jets. One layer – a delay for all jets a single layer. For the particular case, for example, drawing the five Olympic rings – two layers (first and second) without delay, and two layers (the third and fourth) with a delay.

In mole 1, which has in the direction to the coast from the sea 10 smooth surface 2 with the shape of the cross-section which gradually changes from nearly horizontal in the lower part 3 of the breakwater to the vertical in its upper part 4, can be done room 11, which can store boats, fuel, etc., and on the edges of the top smooth surface 2 may be made directing bumpers 12 to create a smooth flow of water in the former of six jets in the multi-channel performance.

Decorative fountain operates as follows.

Formed in the sea wave, mostly at sea for at least 5-7 points, incident on a system of collection and water supply, made in the form of the protective hydraulic structures (mole) 1, having from the sea smooth surface 2 with the shape of the cross-section which smoothly changes in the direction of the coast, from near-horizontal in the lower part 3 of coastal structures to vertical in the upper part 4 of the coastal structures.

Wave soars up the pier 1, and in its upper part 4 of presses on the valve flap 5, which may be in the form of spring mechanisms, which are deflected by the pressure created by the wave. Moreover, by configuring the spring, opening the valve flap 5 are at different pressures and, consequently, their opening occurs with different delays with respect to the wave front.

Passed through the valve flap water under natural pressure created by the wave enters the six jets of water conditioners made, at least single channel. When performing the shapers 6 water jets single channel, they can be in the form of a hollow vessel, open to entry of sea water that penetrates through the valve flap 5, and narrowed the output for the formation of a narrow stream received from the pressure of the jet.

If conditioners six water jets to perform multi-channel, for example, a four, then performing channels 7 different configurations, as shown in FIG. 4, we can get a few, in the particular case of four jet. One layer - a delay for all jets a single layer. For the special case of the five Olympic rings - two layers, without delay, and two layers with a delay.

Because the six jets of water conditioners made with narrow exit, under pressure in the wave front of the shapers of 6 "shoots" on one short jet in their single-channel fulfillment, or several short jets during their multi-channel execution. The duration of the jets is 1-2 seconds.

Using a different number of valve flaps 5 with different delays and different number of shapers 6 with a different number of channels and their configurations can be achieved by a different effect on the creation of various water shapes 8, with each wash.

Thus, by improving the known device, achieved the desired technical effect is to reduce energy consumption, as for decorative effect, eliminates the need for energy from sources of electrical or other energy, as well as expanded functionality as the device possesses the properties of a breakwater, which reduces the destructive force of waves in the coastal sea.

#### Formula of the useful model

1. Decorative fountain sea containing a system of water intake and water supply, a group of shapers of water jets and throttle valve, wherein the intake system and water supply is made as a breakwater Slope type of concrete or reinforced concrete of the array, which has over the sea smooth outer surface of a concave shape, smoothly varying along the curve toward the coast from near-horizontal at the bottom of the pier to the vertical in its upper part, with the top of the pier is perpendicular to the outer surface of the sea successively one above the other, at least two layers are mounted throttle valve, for each of them equipped with the proper conditioners water jets made at least one-channel, with the throttle valve in the form of spring mechanisms.

2. Decorative fountain sea according to claim 1, characterized in that the sides of the outer surface of the pier made directing side.

1 слой	-	first layer
2 слой	-	second layer
3 слой	-	third layer
4 слой	-	fourth layer

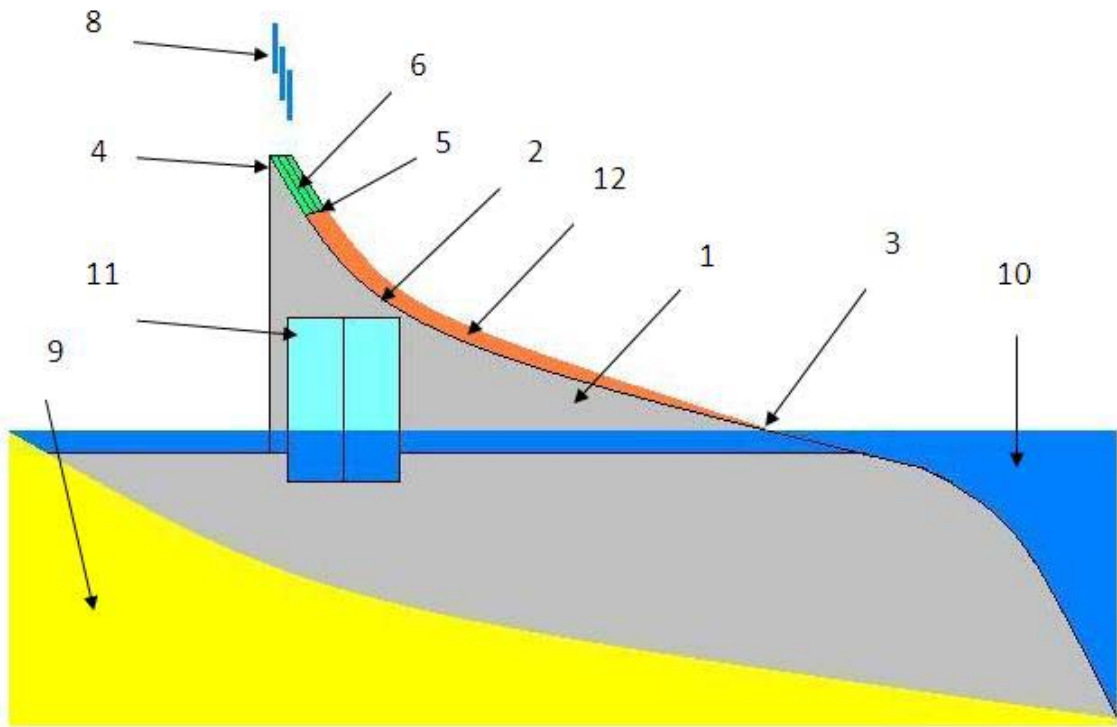


Fig. 1

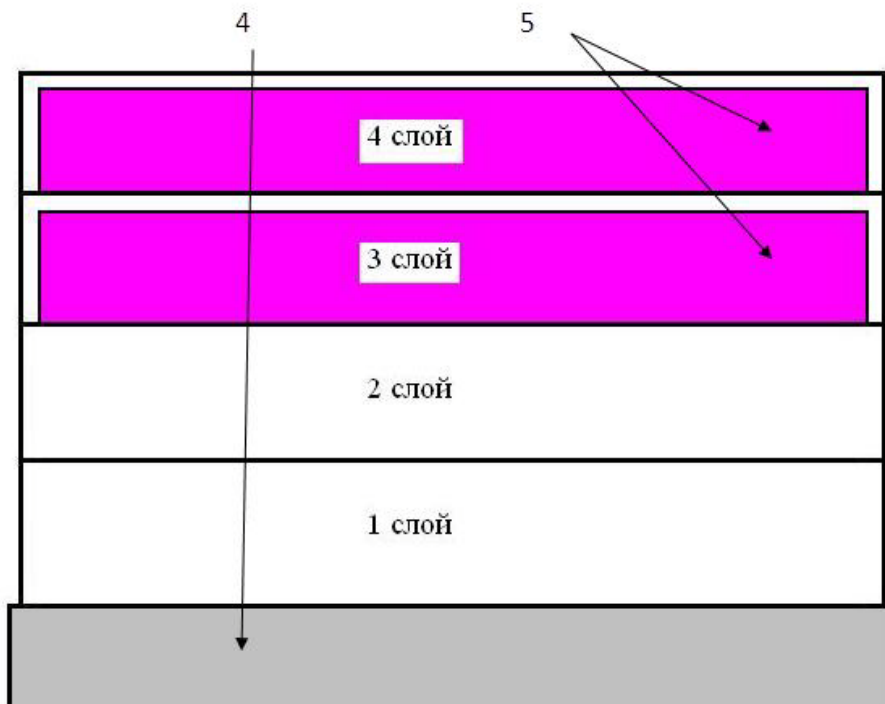


Fig. 2

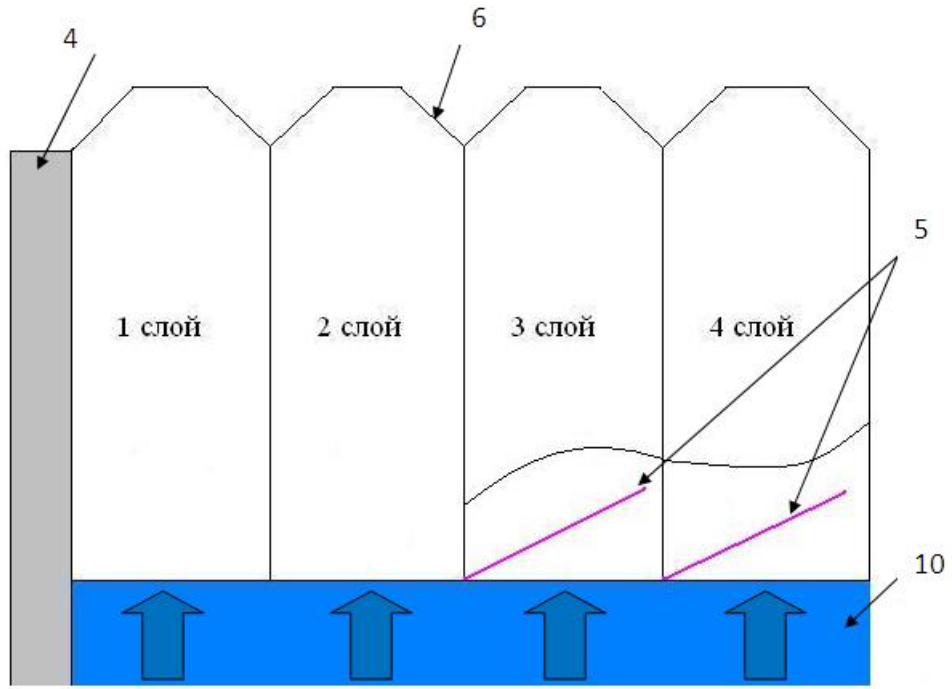


Fig. 3

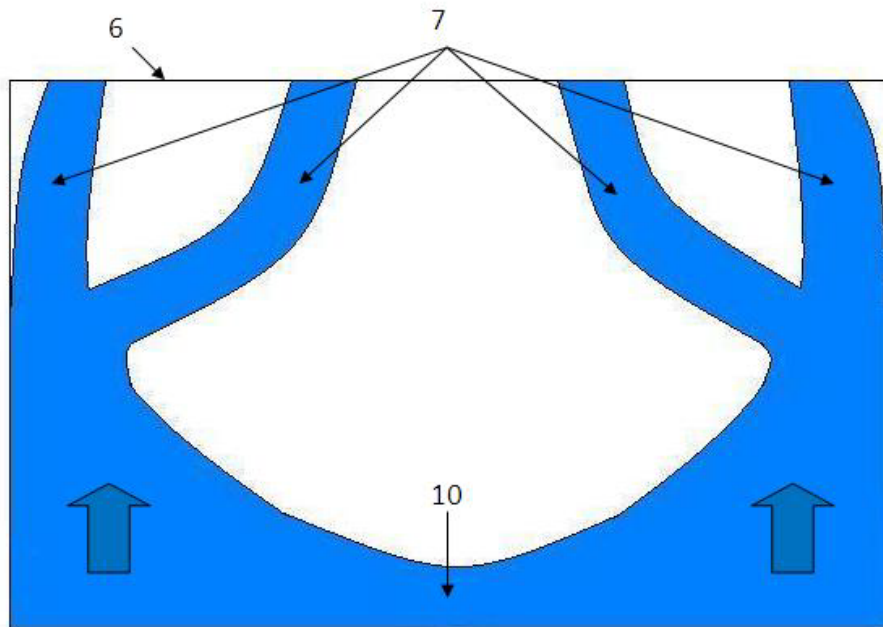


Fig. 4

(54) Decorative Marine Fountain

(57) Abstract

The invention relates to water and decorative structures and devices.

The required technical result is to reduce energy consumption and increase in functionality is achieved in the device containing the system of collection and water supply, a group of shapers of water jets and throttle valve, and, intake system and water supply made in the form of coastal structures, having from the sea smooth surface with the shape of the cross-section which varies smoothly in the direction of the coast from near-horizontal at the bottom of coastal structures to vertical in the upper part of the coastal construction, while the upper part of the coastal structures perpendicular to the surface of the sea has consistently placed flap valve, for each of which is equipped with the proper conditioners water jets carried out, at least single channel.

Referent