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(71) Applicant: **Guerra Iribarren, Fernando**
20009 Donostia / San Sebastián (ES)

(72) Inventor: **Guerra Iribarren, Fernando**
20009 Donostia / San Sebastián (ES)

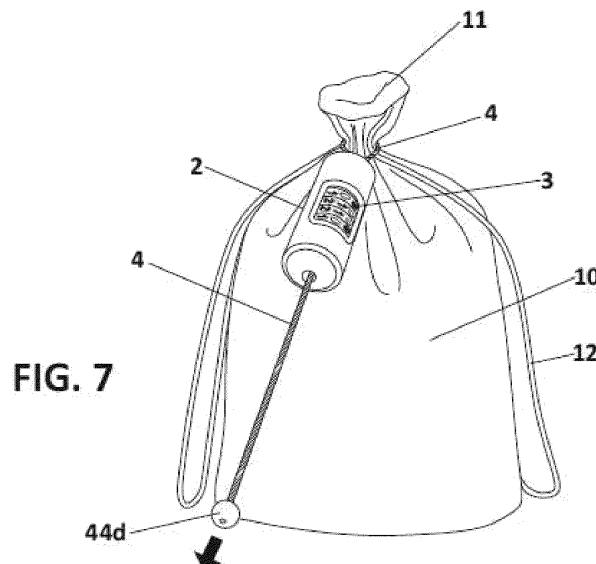
(74) Representative: **Carlos Hernando, Borja**
Garrigues IP, S.L.P.
Hermosilla, 3
28001 Madrid (ES)

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(54) **ADJUSTABLE PADLOCK, SECURITY RECEPTACLE AND SYSTEM**

(57) Adjustable padlock, security receptacle and system. The present invention relates to a locking device which can be securely adjusted on an object to prevent the padlock from being able to become separated from said object unless a specific combination of a combination mechanism incorporated in the padlock is used and releases the padlock without requiring the use of keys. Said object preferably relates to a security receptacle

formed by a flexible mesh which preferably incorporates an internal covering and an external covering consisting of fabric or another flexible material making it look like a bag, backpack or sack. The mesh is preferably made of steel and is molded and treated to have the shape of the receptacle, i.e., of bag, sack or backpack. The combination of said adjustable padlock and receptacle gives rise to a receptacle system with a security lock.



Description

OBJECT OF THE INVENTION

[0001] The present invention, an adjustable padlock, relates to a locking device which can be securely adjusted on an object to prevent the padlock from being able to become separated from said object unless a specific combination of a combination mechanism incorporated in the padlock is used and releases the padlock without requiring the use of keys. The padlock is particularly applicable in objects in the form of a bag or backpack type receptacles, to prevent them from being opened by anyone to whom they do not belong, and in turn to allow, through securing means in the form of a cable, wire or chain, securing the padlock, and therefore said receptacle, to a separate or external separate with respect to the object. An exemplary receptacle, also object of the present invention, is one often having a rectangular or cylindrical shape, for keeping personal objects, which can be carried by hand, worn on the shoulder or on the back and is open on one of its sides, and allows keeping and carrying said personal objects in a secure manner, for example, when the owner leaves and does not want to carry them with him/her at the beach, at a party, or in any other location. The receptacle object of the invention is formed by a flexible mesh which preferably incorporates an internal covering and an external covering consisting of fabric or another flexible material, for example, cloth, leather, paper, etc., making it look like an everyday bag, backpack or sack, for example, a beach bag. The mesh is preferably made of steel and is molded and treated to have the shape of the receptacle, i.e., a bag, sack or backpack. The internal and external coverings can be made of the same or a different material, or of a combination of materials. Said mesh provides the receptacle with sufficient resistance so that it cannot be easily broken, especially with cutting tools. Likewise, the padlock can also be used to be secured on other objects, in addition to receptacles, for example, a bicycle, a scooter or a motorcycle, to attach same to a separate or external structure.

[0002] The padlock comprises a hollow body in the form of a casing which houses a combination mechanism which blocks and unblocks, or releases, the movement of a cable, preferably made of steel, or another resistant thread-like element, which defines at one end of the casing a loop having a variable length suitable for being locked on an element. For example, in the case of a receptacle, the cable can constrain the mouth of same after introducing said mouth inside the loop defined by the cable, and in the case of a bicycle or scooter the cable can constrain and be locked on the connecting rod of the pedal or the tube of the frame, respectively, after introducing said connecting rod or the tube inside the loop. As mentioned, for securing the padlock to a separate or external structure, in addition to the object, the padlock preferably has securing means in the casing to be able to secure it to an external or separate structure, whether

fixed or mobile, with these securing means preferably being a shear resistant cable, chain, wire or the like.

[0003] The receptacle is preferably provided, in an accessory manner and forming a security system, with a security lock or locking device, such as the adjustable padlock object of the invention, which prevents access to the interior thereof, and as mentioned, in turn allows securing or fastening the receptacle to a preferably fixed element or structure by means of a chain, cable or similar means. Users can thereby keep their belongings inside the receptacle, locking same with a lock or locking device and securing it to a structure, to subsequently leave it for a time and not worry about it possibly being stolen or swiped.

[0004] The field of application of the present invention is comprised within the sector of the industry dedicated to the manufacture of padlocks, locks and security mechanisms. Likewise, the present invention is comprised within the sector of the industry dedicated to the manufacture of bags and suitcases, while covering at the same time the field of security systems for storing objects.

BACKGROUND OF THE INVENTION

[0005] Multiple types of security locks and padlocks to prevent elements of any type from being opened are known on the market, and also being widely disclosed are those which, rather than working with a key to open and lock same, include a combination mechanism formed by a series of numbered rollers which, when placed in a certain position, release a pin or similar locking element which allows the lock to be opened.

[0006] Another objective of the padlock of the present invention relates specifically to the development of a lock which allows being adjusted and securely locked directly on an object, preferably the mouth of a similar flexible receptacle, without the latter necessarily having to have a zipper, flap or other locking elements which, in turn, must be secured to prevent the object from being opened by a third party, although it can also be used for other purposes mentioned above, such as securing a bicycle, motorcycle or scooter to an external or separate structure with respect to the padlock and the object.

[0007] Furthermore, the problems existing when going to the beach or other places where one usually leaves their belongings unattended, for example, to take a walk or swim, are widely known because there is a risk that said belongings will be stolen, bringing about subsequent damages for the owner, especially when the belongings are keys, a wallet, important documents, mobile phone, or other similar personal belongings.

[0008] To avoid this, the users currently opt for different solutions to prevent said personal belongings from being stolen, for example, hiding them, having someone else look after them, using safe boxes or rental lockers, among others. However, none of them provides a satisfactory solution because they are either not secure or they consist of stiff, heavy and bulky elements or are

expensive.

[0009] It would be desirable to be able to leave one's belongings in the receptacle itself in which they are carried, with the objective of the present invention being a security receptacle, in the form of a bag, backpack or sack, which allows keeping belongings secure against possibly being stolen by simply securing same with a chain, cable or the like to an element or structure, and which is furthermore preferably fixed, for example, to a tree or bench, although it can also be mobile, such as a hammock or chair, for example.

DISCLOSURE OF THE INVENTION

[0010] The present invention relates to a security padlock or lock according to claim 1.

[0011] The padlock comprises a hollow body in the form of a casing, with a first side and a second side, which houses a combination mechanism associated with a blocking system, which blocks or unblocks the mobility of at least one cable or thread-like element, preferably made of steel, which defines a loop. The combination mechanism is formed by a series of wheels with characters, preferably numbers which, when placed in a certain position, determining a password or code, allow the sliding of a cable through the casing of the padlock. This combination mechanism can incorporate different blocking systems and is an alternative to a mechanism which requires the use of a key. When the combination mechanism unblocks the blocking system (wheels with characters determine the password), the sliding of the cable through the casing is allowed to increase the length of the loop formed by the cable. Conversely, if the system is blocked, the wheels with characters do not determine the password or code and the blocking system prevents the previous sliding of the cable, but it does allow the sliding of the cable to reduce the length of the loop.

[0012] The cable is attached to the casing by the two sides of the latter, with the cable determining a loop on the outside of a first side of the casing and showing a free end of the cable on the outside of the second side of the casing. On the first side of the casing, the cable is fixedly attached before exiting the casing and enters the casing again by said first side, the cable being movably attached to the casing, determining the loop having a variable length, for, after crossing said casing, the cable to emerge on the second side of the casing, also being movably fixed to the casing before the free end exits the casing. The combination mechanism which blocks and unblocks the displacement of the cable through the inside of the casing is arranged on the inside of the casing, between both sides.

[0013] Therefore, when the combination mechanism is unblocked, the displacement of the cable is allowed so that, by pulling on it from one side or the other, i.e., from the first side of the casing where the cable defines the loop or from the second side of the casing where the free end of the cable is located, the length of the loop, and

therefore the diameter of the adjustable enclosure forming said loop, can be increased or reduced, thus being able to pass the mouth of the bag or introduce another object or part of an object through the inside of the loop.

To reduce the diameter of and constrain the loop on the bag or object, it is necessary to pull on the free end of the cable emerging on the second side of the casing. Once constrained on the bag or object, it will not be possible to free the padlock from said bag or object, unless the combination mechanism is unblocked by means of entering the password thereof.

[0014] Likewise, the combination mechanism of the padlock comprises a pin through the inside of which the cable slides, a lever at one end of said pin, a first spring at said end, the wheels with characters associated with rollers which are traversed by the pin, a first type of pushing elements housed in holes of the rollers and a second spring in contact with a second type of pushing element, and a blocking system associating the cable and the pin, such that the blocking system allows the sliding of the cable in one or two directions based on the position of the wheels with characters.

[0015] In that sense, when the wheels with characters are placed in a predetermined position, the rollers rotate causing the alignment of the pushing elements between the lever and the second spring, for the force of said second spring to displace the pushing elements which in turn push the lever and therefore the pin, overcoming the force exerted by the first spring and allowing the sliding of the cable to increase the length of the loop when the cable is separated from the blocking system.

[0016] The blocking system preferably comprises elements which prevent the sliding of the cable by tightening same. Said elements are preferably serrated wedges, or serrated cylinders, which are slightly displaced on diametrically opposite sides of the cable in order to tighten same or not. The movement of said tightening elements is determined by the movement of the pin.

[0017] The combination mechanism also comprises, for the user to determine the password or code by displacing the wheels with characters, an eccentric associated with the rollers and with a guide disc, compressed by springs between the guide disc and the casing, such that the rotation of the eccentric pushes the rollers and the guide disc, with the latter compressing the springs and releasing the wheels with characters with the displacement of the rollers. After the previous movement said wheels with characters can be rotated to change the password of the padlock while the rollers remain firm in one position as a result of the internal displacement of the pushing elements. To end, the eccentric is rotated again to its initial position, and the guide disc and the rollers are pushed with the force of the springs. The casing comprises a hole for accessing a housing in the eccentric by means of a key.

[0018] As mentioned, said security padlock or lock is mainly designed to prevent a receptacle, bag, backpack or the like from being opened, by incorporating the com-

bination mechanism which does not require the use of keys, and at least the adjustable loop suitable for constraining the mouth of the receptacle. Preferably and to hinder the bag or backpack type receptacle from being torn, said receptacle is formed with a steel mesh structure which preferably incorporates an internal and external covering consisting of fabric or another flexible material that makes it look like an everyday bag or backpack. In that sense, the receptacle has sufficient resistance so that it cannot be easily broken, not even with tools, allowing the user to secure their belongings against being potentially stolen once it is locked with the padlock and secured to an external structure. Likewise, said loop can be constrained on any other object or part of an object that allows being introduced in the loop.

[0019] The padlock also preferably comprises securing means, preferably on its second side to be able to fasten the padlock, and therefore also the object to which the padlock is attached, to a fixed or mobile structure, for example, a fixed beach umbrella, a hammock, a tree, a street light or another structure. The securing means are preferably attached to a cable, chain or the like which will allow the padlock to be fastened to said fixed or mobile structure. This construction could also incorporate securing means, such as those described previously, at different point of the body of the casing other than the second side.

[0020] In that sense, a second object of the invention relates to a security receptacle according to claim 10. Specifically, the security receptacle comprises a flexible mesh, preferably a steel cable or resistant wire, made in the shape of the receptacle, bag, backpack or sack, said receptacle having at least two defined areas:

- a first area which determines the housing of the receptacle, and
- a second area, located in the opening of the receptacle, consisting of a thickening of the mesh and determining the mouth per se of the receptacle,

said mesh further having an internal covering which defines the inside of the housing and an external covering which defines the outside and the appearance of the receptacle.

[0021] Preferably the first area and the second area are located on opposite sides of the receptacle, more preferably the first area at the lower end of the receptacle and the second area at the upper end thereof.

[0022] The receptacle is locked below the mouth, i.e., below the thickening of the mesh, determining a third area, when the receptacle is locked, which consists of a narrowing of the mesh of the housing and determines a neck at the mouth of said receptacle, such that said narrowing is arranged between the first area of housing of the receptacle and the third area or thickening of the mesh.

[0023] The receptacle object of the invention is conceived for the purpose of being able to keep personal

objects secure, for example, when the owner leaves and does not want to carry them with him/her at the beach or in another location where they could be susceptible to being stolen. Said receptacle, in the form of a bag, backpack or sack, comprises a flexible mesh structure formed by cables or wires made of a resistant material, preferably steel or Kevlar, said cables or wires being interlinked or configured to determine the mesh. The material of said mesh provides sufficient resistance to the receptacle so that it cannot easily break, not even with the use of scissors or other cutting tools. Said resistance will be determined by the material thereof, such that in the case of a mesh steel made, the type of steel used will determine the resistance of the receptacle.

[0024] As mentioned, the flexible steel mesh structure determines an inner housing al which is accessed through the mouth or opening to introduce or extract personal objects such as an ID, cards, mobile phone, keys, books, among others. The flexible mesh can be in the form of a bag, sack, backpack or the like.

[0025] By means of the narrowing of the mouth which defines the third area or neck of the mesh when the receptacle is locked, the complete locking of the receptacle can be assured by means of an additional security lock, which forms said neck by surrounding the receptacle below the thickening of the mesh of the receptacle, such that once it surrounds said neck, it cannot be extracted due to the mentioned thickening or second area of the mesh. Since said thickening or second area has a diameter that is greater than the narrowing of the neck or third area prevents the additional security lock from being able to be extracted through either the upper part or lower part of the receptacle. The movement of the security lock is limited by the thickening or second area of the receptacle and by the first area or housing of the receptacle.

[0026] In that sense, the receptacle is preferably combined with a security lock, in turn associated with a chain or the like for the securing thereof to a preferably fixed element or structure, such that it allows the user to keep their belongings secure against possibly being stolen when they are not there.

[0027] The receptacle of the invention has an internal and external covering consisting of fabric or another flexible material covering the steel mesh structure and it makes the receptacle look like an everyday bag, backpack or sack, for example, like a beach bag. The internal and external covering material can be the same or different, where even more than one material can be used for any of the two coverings. The covering material can be leather, a fabric, a type of plastic or paper, among others.

[0028] In any case, in a preferred embodiment, the flexible body forming the bag has a sack configuration such that the mouth can be locked with the security locking device forming a narrowing area of said mouth and to which the chain or a similar thread-like securing element used to surround a fixed or bulkier element or structure, such as a fixed beach umbrella at the beach, a hammock, a chair, a street light, a tree, etc., can in turn be

fastened to secure the receptacle to same.

[0029] In relation to the locking device, any device can be used, but it is preferable to use one that lacks additional locking means, such as a key, to prevent the user from having to carry said key, with password-operated locking devices being preferred.

[0030] Preferably, the security locking device comprises a system which is adjusted and locked on the receptacle determining the neck of same, for example, an adjustable padlock with a steel cable, according to the first object of the invention, which allow being adjusted and locked throughout its development.

[0031] A third object of the invention relates to a system formed by an adjustable device or padlock, according to the first object of the invention, and a security receptacle according to the second object of the invention.

DESCRIPTION OF THE DRAWINGS

[0032] To complete the description of the present invention and for the purpose of making it easier to understand the features of the present invention, illustrative and nonlimiting figures are included in the present specification as an integral part thereof.

Figure 1 shows a perspective view of an embodiment of the security lock object of the invention, namely a padlock with an adjustable loop defined by a steel cable.

Figure 2 shows a perspective view of the exemplary security lock shown in the preceding figure, in this case depicted with the casing being open, showing the elements of the combination mechanism and the cable.

Figure 3 shows an exploded view of the padlock object of the invention.

Figure 4 shows a partial section of the padlock object of the invention.

Figure 5 shows a detail of the blocking system of the cable of the padlock.

Figure 6 shows a perspective view of a padlock object of the invention arranged on a bag, such that the mouth of the bag is introduced in the loop determined by the cable of the padlock.

Figure 7 shows a perspective view of the padlock of the previous figure with the loop constrained on the mouth, thus ensuring the locking of the bag. Figure shows the direction in which the cable of the padlock is to be displaced to reduce the length of the loop on the mouth of the bag.

Figure 8 shows a padlock object of the invention, with a connecting rod of the pedal of a bicycle introduced in the loop of the padlock and a chain, attached to said padlock and by means of which it is attached to a bench.

Figure 9 shows a perspective view of an embodiment of the security bag object of the invention, depicted in the locked position and with the external covering

partially sectioned, such that the inner steel mesh structure can be seen.

Figure 10 shows a top plan view of the exemplary security bag of the invention shown in Figure 9 with a padlock that is an alternative to that of the previous figures.

Figure 11 shows a sectional view of the bag, according to section A-A indicated in Figure 10.

Figure 12 shows a view of a receptacle without an external or internal covering incorporating a security lock, which is an alternative to the padlock object of the present invention, associated with the mesh of the receptacle itself.

Figures 13 to 15 show a depiction of a bag object of the invention secured to different elements, specifically to two hammocks, to a bench or to a tree.

PREFERRED EMBODIMENT OF THE INVENTION

[0033] Figures 1 and 2 show a padlock (1) object of the invention with a hollow body in the form of a casing 2, with a first side and a second side. Said casing (2) houses a combination mechanism (3) which allows blocking or unblocking the mobility of at least one cable (4) or thread-like element, preferably made of steel, crossing the casing (2) and defining a loop (44) or adjustable enclosure on one side of said casing (2). Said cable (4) or thread-like element is preferably made of steel or a resistant material similar which hinders cutting same.

[0034] One end of the cable (4) is fixedly attached to the casing (2) in a first inner point (44a) of a first side of the casing (2) from which the cable (4) exits said casing (2) to subsequently, and after describing the loop (44), being introduced back into the casing through a second inner point (44b) with respect to which the cable (4) moves or slides. The cable (4) crosses the casing (2) from said second inner point (44b) to a third point (44c) on the second side of the casing (2) where the cable (4) is also slidably attached with respect to the casing (2) to subsequently exit the cable up to its free end (44d). Therefore, by pulling on or pushing the free end (44d) of the cable (4), the cable (4) will slide through the inside of the casing (2), causing the loop (44) to become smaller or larger, preferably around an object to which the padlock is to be secured. The loop (44) can also be made larger by pulling on the loop (44) itself for the free end (44d) of said cable (4) located on the opposite side of the casing (2), i.e., the second side to move closer to said casing (2).

[0035] The combination mechanism (3) which blocks and unblocks the displacement of the cable (4) through the inside of said casing (2) is arranged on the inside of the casing (2), between both sides. The combination mechanism (3) comprises a series of wheels with characters (39) which, when placed in a specific position conceived by the user to thus determine the password of the padlock, establish a series of numbers, letters or other characters, which allows the sliding or displacement of the cable (4) through the inside of the casing (2)

and with respect to same or prevents said sliding. When the wheels with characters (39), preferably numbers, i.e., number wheels, of the combination mechanism (3) do not show the password, because they do not include the sequence of same, said combination mechanism (3) allows the blocking of the cable (4) preventing the latter from sliding through the inside of the padlock in the sense of increasing said enclosure. This means that if the password is not entered, it will only be possible to reduce the enclosure until constricting the element to be secured. The combination mechanism (3) of the padlock can incorporate different blocking systems (40) to prevent said sliding of the cable (4).

[0036] Figures 3, 4 and 5, is shown a blocking system (40) which allows the blocking of the cable (4), for example, by means of a cylindrical blocking pin (30) which is pushed by a spring (31). The cable (4) is introduced into the pin (30), crossing same. This pin (30) incorporates a housing (40) to house two serrated wedges (41), located one on each side of the steel cable (4). The housing (40) is introduced in a space determined in the casing (2). Said housing (40) is thereby determined by four side walls with the upper base and lower base thereof being open. The housing (40) is traversed by the cable (4), thus determining an upper space and a lower space on the inside of the housing. A serrated wedge (41) is introduced in each of those spaces, such that the serrated side of each wedge (41) is opposite the cable (4), whereas the side opposite the contact side with the cable (4), which incorporates the inclination of the wedge, is in contact with the casing (2) since the mentioned housing (40) is open at the upper and lower bases thereof. The space of the casing (2) receiving the housing (40) of the pin (30) has contact surfaces with the inclined side of each wedge (41), said surfaces also being inclined and parallel to said inclination.

[0037] In that sense, when the padlock is blocked, i.e., without indicating the password and with the pin (30) towards the first side of the casing (2), the force of a spring (31) pushes the pin (30), and in turn the serrated wedges (41), compressing same, between the steel cable (4) and the casing (2). By entering the password in the combination mechanism (3), said mechanism transitions to an unblocking mode, such that the pin (30) is pushed towards the second side, compressing the spring (31) located on the inside of the second side of the casing (2) and releasing the wedges (41) acting on the cable (4). Likewise, said wedges (41) can be replaced with other tightening or blocking elements, such as serrated cylinders.

[0038] The pin (30) is associated with the number wheels (39) of the combination mechanism (3), with preferably four wheels, such that when said mechanism (3) is actuated by rotating the wheels (39), the sliding of the cable through the inside of the casing (2) may or may not be prevented. Each of these number wheels (39) has on the perimeter thereof numbers, letters, symbols, or a combination thereof, for example, from 0 to 9, such that a

specific sequence formed by a number, letter or symbol of each of the wheels (39) determines the combination or password for opening the padlock. The pin (30) has the first spring (31) on the second side of the casing (2), through which side the free end of the cable (4) exits, said spring being arranged in a housing (21) in the casing (2). Likewise, the pin (30) has a lever (32) perpendicular to said pin (30) at the end close to the first spring (31).

[0039] The combination mechanism (3) comprises the mentioned number wheels (39), each of which is associated with a roller (37). Said rollers (37) have a central hole (37a) for the pin (30) to traverse same, and another off-centered hole (37b) for the housing of a first type of pushing elements (33b). The pushing element of the first type (33b) of the roller (37) closest to the first spring (31) can be in contact with the lever (32) of the pin (30). The roller (37) farthest away from the first spring (31) is arranged in contact with a guide disc (36), and said guide disc (36) is provided with two holes, a central hole (36a) for the passage of the pin (30) and an off-centered hole (36b) that is always aligned with the lever (32). Said off-centered hole (36b) serves as a housing and guide for a pushing element of a second type (33a), which is longer than that of the first type (33b), with the purpose of said length being the partial housing of a second spring (34). The guide disc (36) is not rotational, unlike the rollers (37), and serves to keep the rollers (37) compressed with the number wheels (39) due to the action of the force of at least three third springs (35). Said third springs (35) are partially housed at one end in the guide disc (36), whereas the other end is supported on the casing (2), said third springs (35) thereby being compressed between the casing (2) and the guide disc (36).

[0040] The pin (30) is driven through the lever (32), such that, to release the blocking system, specifically the wedges (41) in the housing (40) of the cable (4), said lever (32) must be pushed towards the end of the pin (30) close to the first spring (31), i.e., towards the second side of the casing (2), by means of the alignment of the pushing elements of the first type (33b) with the rollers (37). This alignment is achieved by entering the combination or password of the mechanism (3) and rotating the number wheels (39). After said alignment of the pushing elements of the first type (33b), the force of the second spring (34), compressed between the pushing element of the second type (33a) and the casing (2) overcomes the force of the first spring (31), causing the displacement of the pin (30) upon the pushing of the first and second pushing elements (33a, 33b) by the lever (32).

[0041] The mechanism (3) also has an eccentric (38) to change the number combination or password for opening the mechanism (3) by means of the rotation of the number wheels (39). The opening of the mechanism (3) is the equivalent to allowing the blocking and unblocking of the blocking system for blocking the cable (4) in the housing (40) with the wedges (41). A housing (not shown) in a cylindrical protrusion (38a) of the eccentric (38) which allows rotating same is accessed with a key through a

hole (not shown) in a module of the casing. The eccentric (38) is housed in a space (22) arranged in two of the modules into which the casing (2) is divided. A housing (23) for the cylindrical protrusions (38a) of the eccentric (38) is incorporated in said spaces (22) of the modules of the casing, which allows adjusting and guiding the eccentric (38) between the modules of the casing (2) for rotation. The eccentric (38) can only rotate when the first and second pushing elements (33a, 33b) are aligned with one another, such that upon rotation of the eccentric (38), the rollers (37) of the number wheels (39) are pushed and drawn out, thereby allowing the rotation of said number wheels (39) with respect to the rollers (37) and the subsequent changing of the password. Once the password is changed, the eccentric (38) needs to be turned again to its original position with the use of the key, such that the guide disc (36) pushed by the springs (35) embeds the rollers (37) again in the number wheels (39). The password can only be changed in the unblocking position, i.e., with the chosen password to be changed.

[0042] Figures 6 and 7 show the application of the padlock (1) object of the invention for locking a bag (10) with conventional locking and carrying means preferably formed by a cord (12). Said bag has a thickening at its mouth (11), the purpose of which is to prevent same from coming out of the loop or enclosure (44) of the padlock (1). Preferably said bag has an internal steel mesh structure (not shown) which reinforces the security thereof. For locking the bag (10) with the padlock (1) object of the invention, the mouth (11) of the bag (10) is introduced in the loop (44) determined by the cable (4) of the padlock (1). If the diameter of the loop (44) is large enough for the mouth (11) of the bag (10) to enter same, it will not be necessary to enter in the combination mechanism (3) arranged in the casing (2) the password or series of numbers which unlock the displacement of the cable (4) through the casing (2) since the displacement of said cable (4) to reduce the diameter of the enclosure (44) is always possible by pulling on the free end (44d) of the cable (4). If, conversely, the diameter of the enclosure (44) is not large enough for the mouth (11) to enter same, it will be necessary to enter in the combination mechanism (3) the series of numbers which unblock the movement of the cable (4) in both directions to then expand the enclosure (44) by pulling on same or by pushing the free end (44d) and therefore bringing the free end (44d) of the cable (4) closer to the second side of the casing (2). Once the mouth (11) is introduced in the loop (44), and to adjust same on said mouth (11), it is necessary to pull on the cable (4) at the free end (44d) thereof, as indicated by the arrow in Figure 7.

[0043] As mentioned, the padlock is preferably applicable for locking a bag or backpack type receptacle for keeping personal objects in a secure manner and in turn securing the receptacle to a fixed or mobile structure when, for example, the user of the receptacle does not want to carry it or the personal objects with them, for example, when taking a walk on the beach or the like.

[0044] Preferably, the casing (2) of the padlock (1) incorporates a ring or the like (5) for securing a second cable, chain or similar element (6), preferably made of steel or any other resistant material which allows attaching the padlock (1) to an external element or structure to thereby secure the padlock (1), and the latter secured to its loop (44), to said element or structure. Said second cable, chain or similar element (6) has an enclosure with a constant diameter at the end opposite the end for being secured to the casing (2) in order to allow introducing the padlock (1) therein. This second cable, chain or similar element (6) can also be attached to the inside of the casing (2) in a manner similar to the first end (44a) of the cable (4) of the padlock (1), thereby preventing additional attachments.

[0045] Figure 8 shows a padlock (1) object of the invention, having a loop (44) into which the connecting rod of the pedal of a bicycle (50) is introduced. Likewise, this padlock (1) has a second cable, chain or similar element (6) associated with the casing (2) whereby the padlock (1) is attached or fastened to a bench (20) such as an external element or structure with respect to the padlock (1). This therefore prevents the bicycle (50) from being taken by someone other than the user.

[0046] In that sense, considering Figures 9 to 15, a bag (10) like the one shown in the preceding Figures 6 and 7 is described below. In that sense, the receptacle (10) of the invention, formed in a known manner from a flexible body which defines a housing for keeping and carrying objects, which may or may not be provided with handles for carrying same (not depicted in the figures), is distinguished in that said body internally has a flexible steel or Kevlar mesh structure (100), having sufficient resistance so that it cannot easily break, not even with the use of scissors or other cutting tools.

[0047] Said formed mesh (100) has at least:

- a first area which determines the housing of the receptacle, and
- a second area, located in the opening (10a) of the receptacle (10) and consisting of a thickening of the mesh and determining the mouth (10a) per se of the receptacle (10).

[0048] The figures show a locked receptacle (10), where there can also be seen, in addition to the two previous areas, a third area consisting of a narrowing of the mesh (100) of the receptacle (10) and determining a neck at the mouth of the receptacle (10).

[0049] Preferably, the receptacle (10) further comprises an internal covering and an external covering (103) consisting of fabric or another flexible material covering the mesh structure (100), preferably made of steel (100), preventing the mesh (100) from being seen and making the receptacle (10) look like an everyday bag, backpack or sacks.

[0050] Likewise, the receptacle (10) preferably comprises a security lock (1') which prevents access to the

inside of the bag (10) when it is placed and locked below the mouth (10a) of the bag (10).

[0051] In a preferred embodiment, the flexible mesh body (100) forming the receptacle (10) has a sack configuration (10) and the security lock (1') consists of a device which, upon surrounding the sack (10), determines the third area or neck of the mouth (10a). It is possible to fasten to this security lock (1') a chain (6) or similar thread-like securing element with which a preferably fixed and/or bulky element, such as a fixed beach umbrella, a hammock (71), a chair, a street light, a bench (72), a tree (73), etc., can be surrounded to secure the bag (10) to same. The bag (10) therefore can neither be opened nor carried, and is not easily damaged in order to access the inside thereof, the belongings of the user being safeguarded from being stolen.

[0052] In one alternative to the adjustable security padlock or lock object of the present invention, which can be seen in Figures 9 to 15, the security lock (1') is a device comprising at least one end provided with a system of hooks (400), which open and close to encircle the receptacle (10), thereby determining the third area or neck below the mouth of the bag (10) and constricting same, with the system of hooks preferably being linked to a number combination mechanism (3), preventing the use of keys which must be carried by the user.

[0053] Figure 12 shows the mesh (100) of a receptacle (10) object of the invention with the security lock (1') associated with the mesh (100) itself through the chain, cable or thread-like securing element (6). Said cable (6) is attached to the mesh (100) itself, preferably to the inside of same. In that sense, to secure the receptacle (10) to an external structure, such as those indicated above, the mentioned cable (6) will be passed through the external structure and the security lock (1') will then be locked on the receptacle (10) mentioned above. By means of this construction, the receptacle (10) itself the security lock (1') incorporated therein in a separable or inseparable manner, said lock (1') being able to rotate inside the receptacle (10) when said lock (1') is not being used.

[0054] In any case, other locking systems can be used with the receptacle, such as a cable with a padlock.

Claims

1. An adjustable padlock, **characterized in that** it comprises a hollow body in the form of a casing (2), with a first side and a second side opposite the first side, which houses a combination mechanism (3) which blocks or unblocks the displacement of a cable crossing the casing from outside the first side, wherein said cable defines a loop, outside the second side of said casing.
2. The padlock according to claim 1, **characterized in that** a first end of the cable is fixedly attached to the first side of the casing from which it emerges to

subsequently, after tracing the loop, be introduced into the casing again by said first side and after crossing the combination mechanism on the inside of the casing, emerge on the second side of the casing to which it is movably or slidingly attached, such that the loop becomes longer or shorter in length when pulling the cable from one side of the casing or the other.

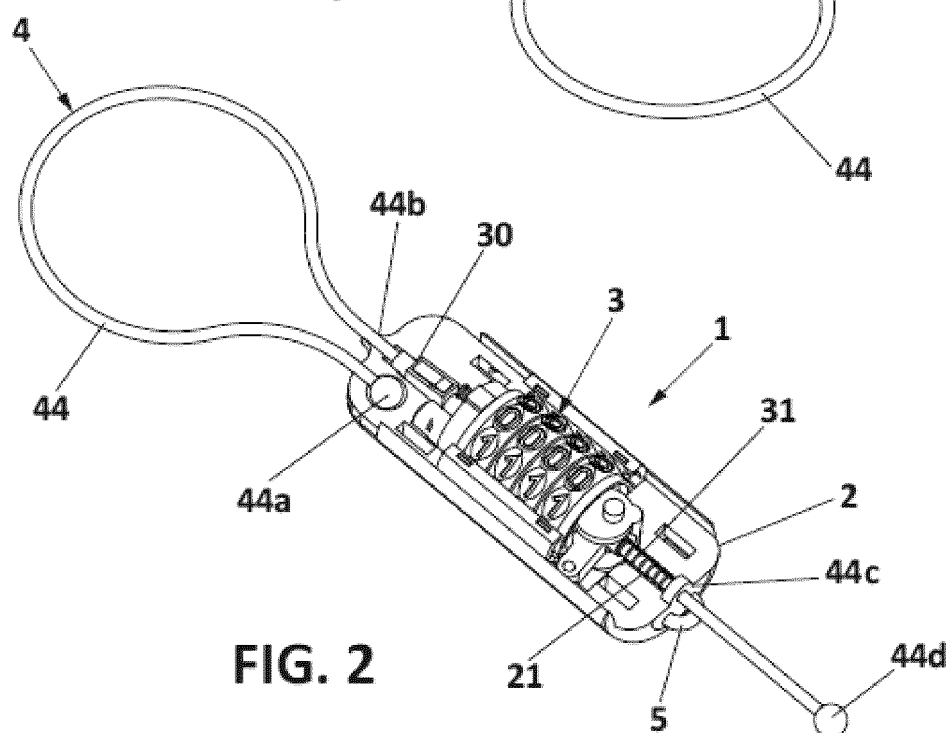
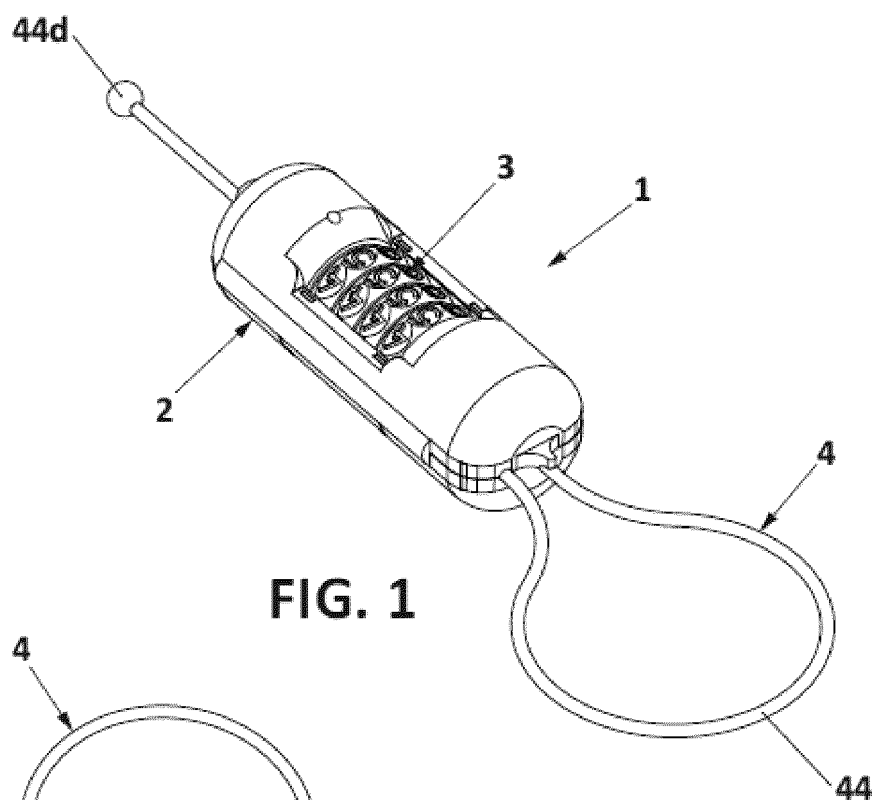
3. The padlock according to claim 1, **characterized in that** the combination mechanism comprises wheels with characters (39) which, when placed in a certain position, determine a password or code, which unblocks a blocking system (40) allowing the sliding of the cable through the casing to increase the length of the loop formed by the cable (4), whereas if the wheels with characters (39) do not determine the password or code, the blocking system (40) prevents the previous sliding of the cable (4), but it does allow the sliding of the cable (4) to reduce the length of the loop.
4. The adjustable padlock according to claim 3, **characterized in that** the combination mechanism (3) comprises: a pin (30) through the inside of which the cable (4) slides, a lever (32) at one end of said pin (30), a first spring (31) at said end, wheels with characters (39) associated with rollers (37) which are traversed by the pin (30), a first type of pushing elements (33b) housed in holes of the rollers (37) and a second spring (34) in contact with a second type of pushing element (33a), and a blocking system associating the cable (4) and the pin (30), such that the blocking system allows or prohibits the sliding of the cable in one or two directions based on the position of the wheels with characters (39).
5. The padlock according to claim 4, **characterized in that** the blocking system comprises displaceable elements that can be displaced with the pin (30) on diametrically opposite sides of the cable (4) to exert pressure on same or not.
6. The padlock according to claim 5, **characterized in that** said elements are serrated wedges or serrated cylinders.
7. The padlock according to claims 5 and 6, **characterized in that** the pin (30) incorporates a housing (40) to house two serrated wedges (41) determined by four side walls with the upper base and lower base thereof being open, with the housing (40) being traversed by the cable (4) thus determining an upper space and a lower space on the inside of the housing in each of which a serrated wedge (41) is introduced.
8. The adjustable padlock according to claim 4, **characterized in that** it comprises an eccentric (38)

associated with the rollers (37) and with a guide disc (36), compressed by springs (35) between the guide disc (36) and the casing (2), such that the rotation of the eccentric (38) pushes the rollers (37) and the guide disc (36), with the latter compressing the springs (35) and releasing the wheels with characters (39) with the displacement of the rollers (37), being able to rotate said wheels with characters (39) after the previous movement to change the password of the padlock while the rollers (37) remain firm in one position as a result of the internal displacement of the pushing elements (33), and to end, the eccentric (38) is rotated again to its initial position, and the guide disc (36) and the rollers (37) are pushed with the force of the springs (35).

9. The adjustable padlock according to claim 7, **characterized in that** the casing (2) comprises a hole for accessing a housing in the eccentric (38) by means of a key.
10. A security receptacle (10), **characterized in that** it comprises a shaped flexible mesh (100), made of a cable or wire of a resistant material, which defines a housing with a access mouth (10a), with at least two areas:
 - a first area which determines the housing of the receptacle, and
 - a second area, located in the opening (10a) of the receptacle (10) and consisting of a thickening of the mesh (100) which determines the mouth per se of the receptacle (10), said mesh (100) further having an internal covering which defines the inside of the housing and an external covering (103) which defines the outside and the appearance of the receptacle.
11. The receptacle according to claim 10, **characterized in that** the internal and external coverings are made of at least one fabric or another flexible material.
12. A security system, **characterized in that** it comprises a receptacle according to any of claims 10 or 11 and a padlock according to any of claims 1 to 9.

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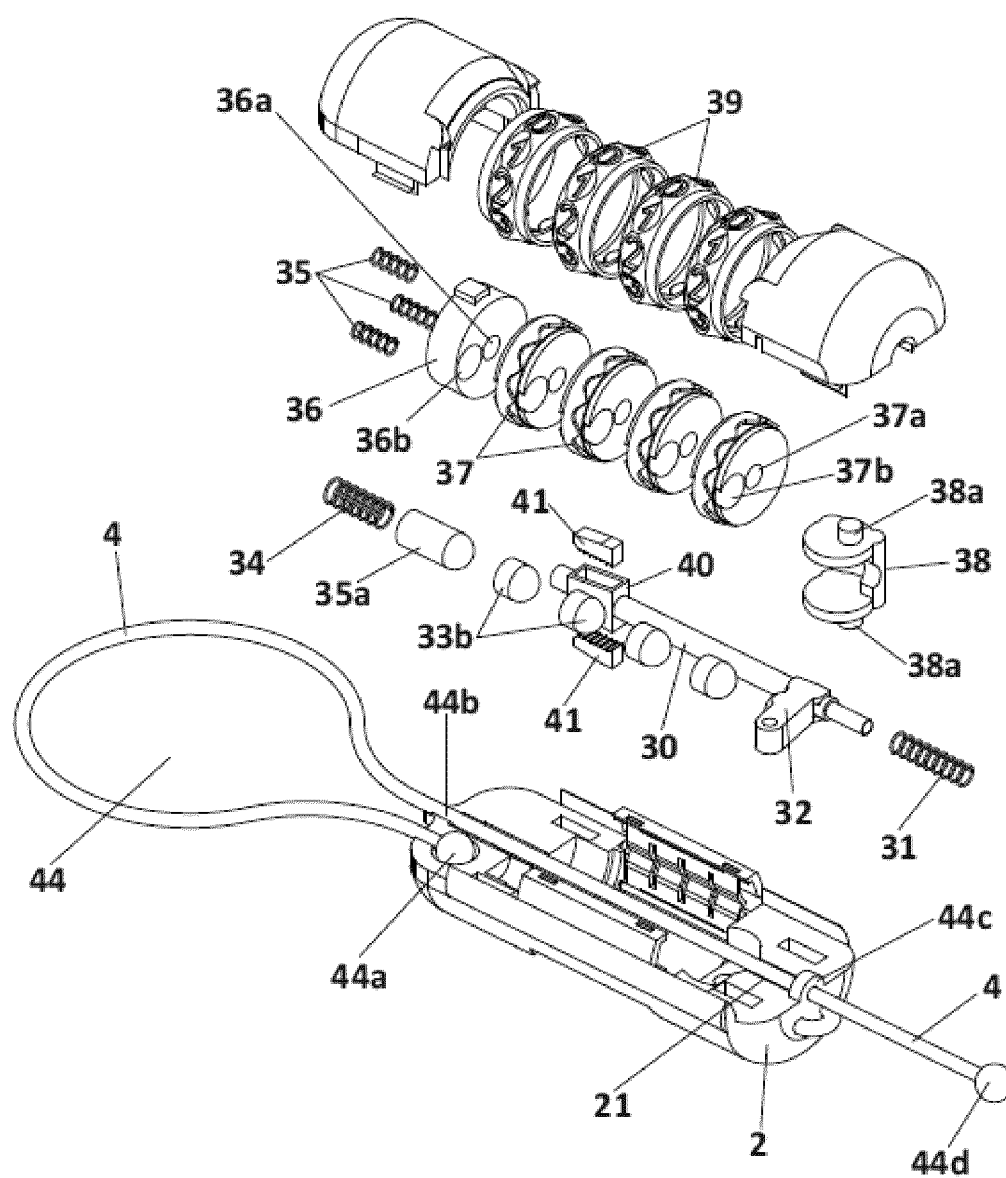


FIG. 3

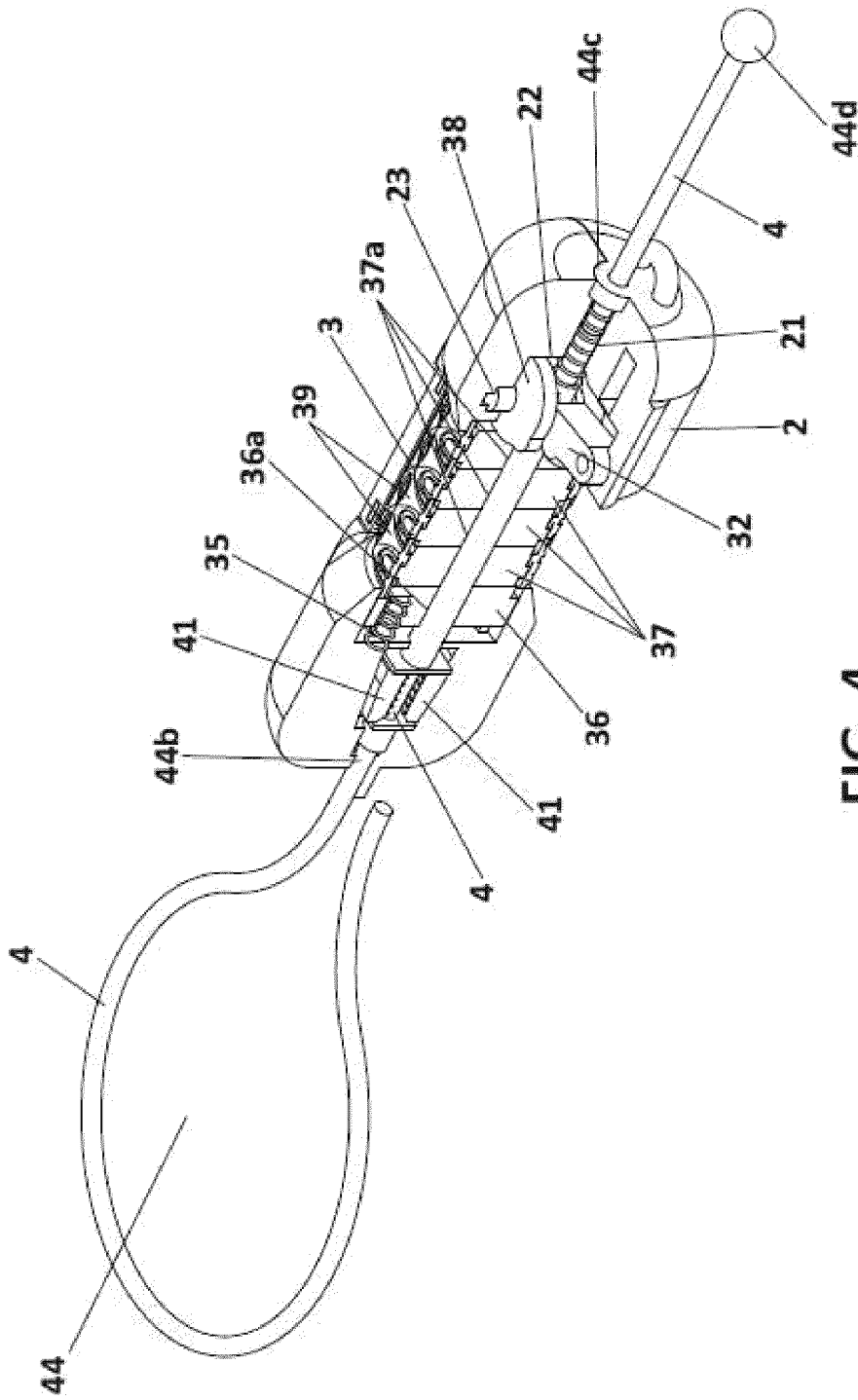


FIG. 4

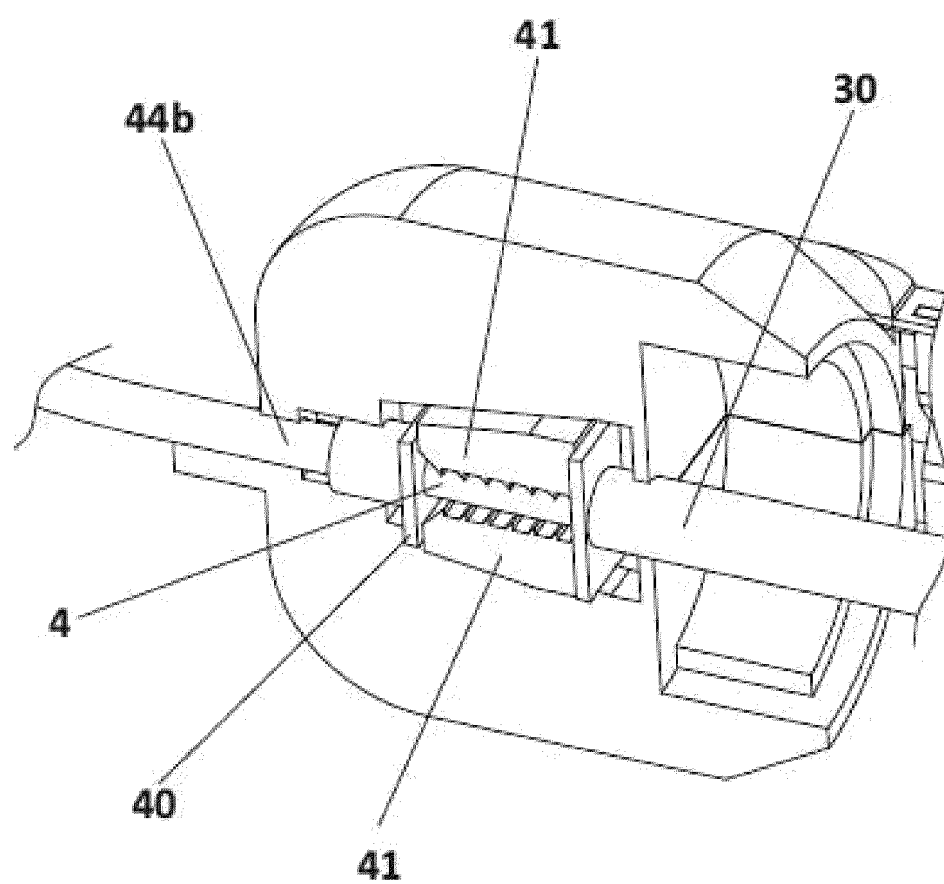


FIG. 5

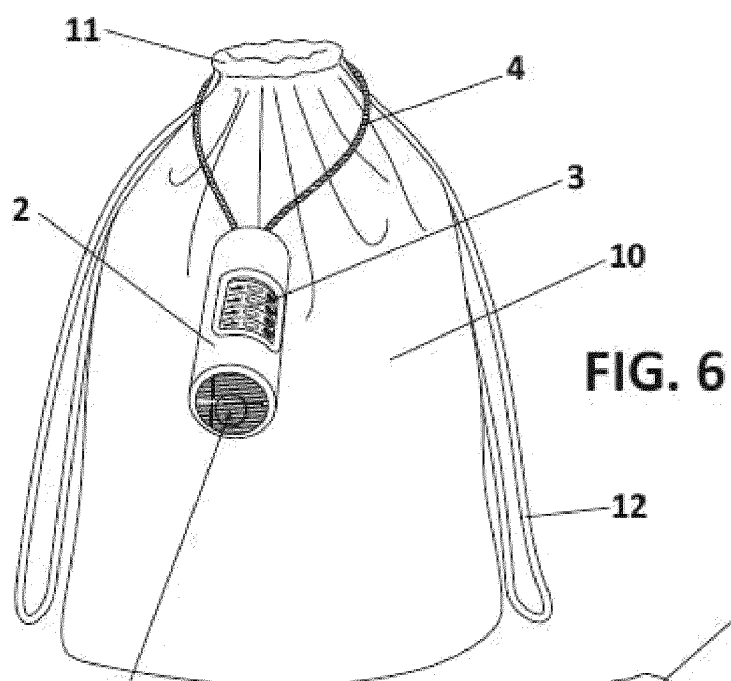


FIG. 6

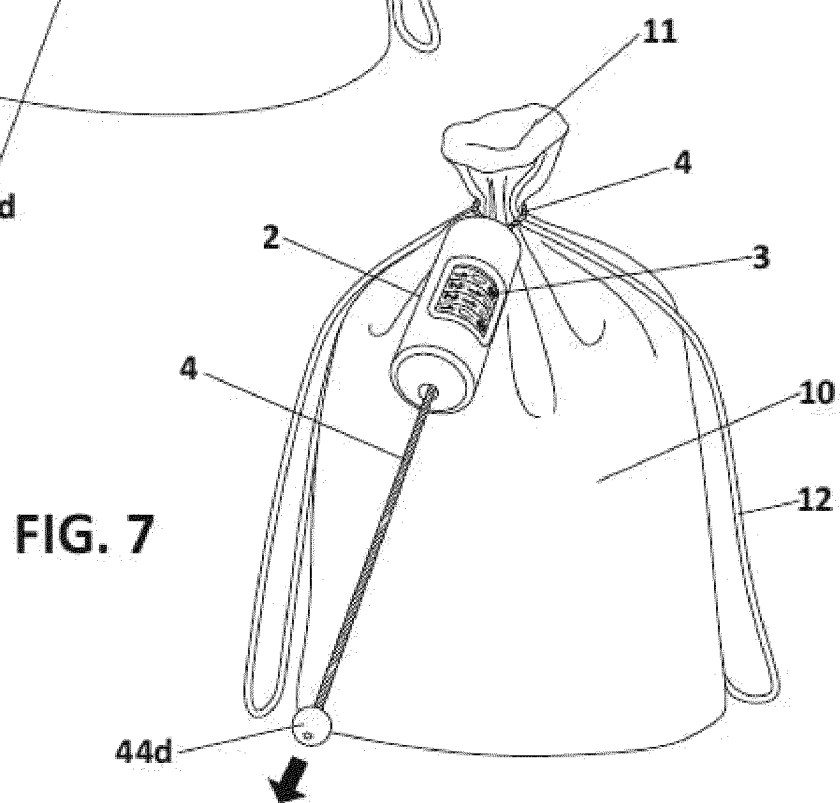


FIG. 7

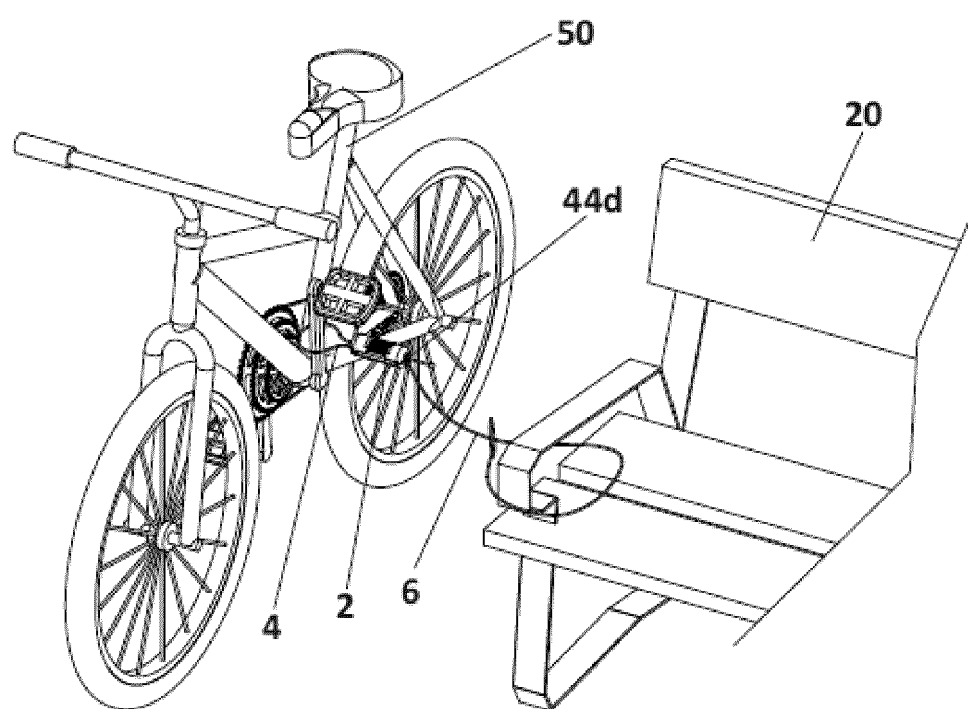


FIG. 8

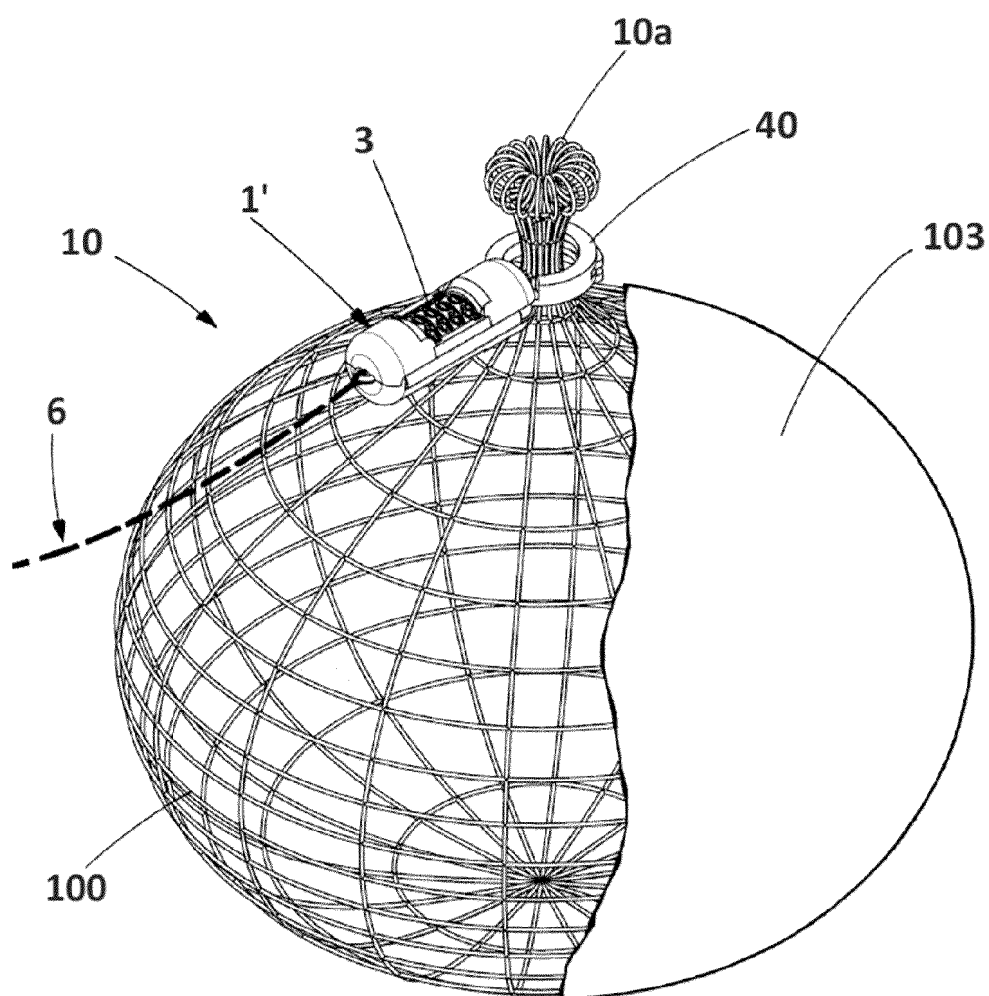


FIG. 9

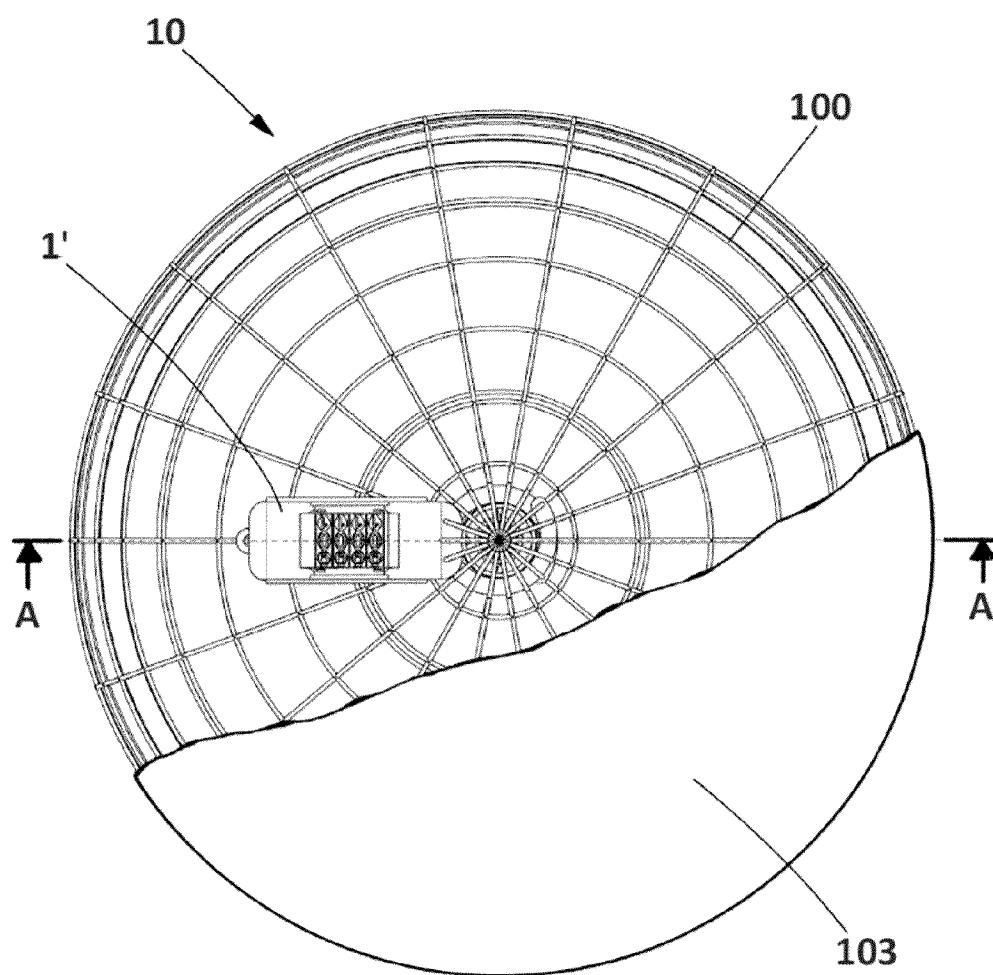


FIG. 10

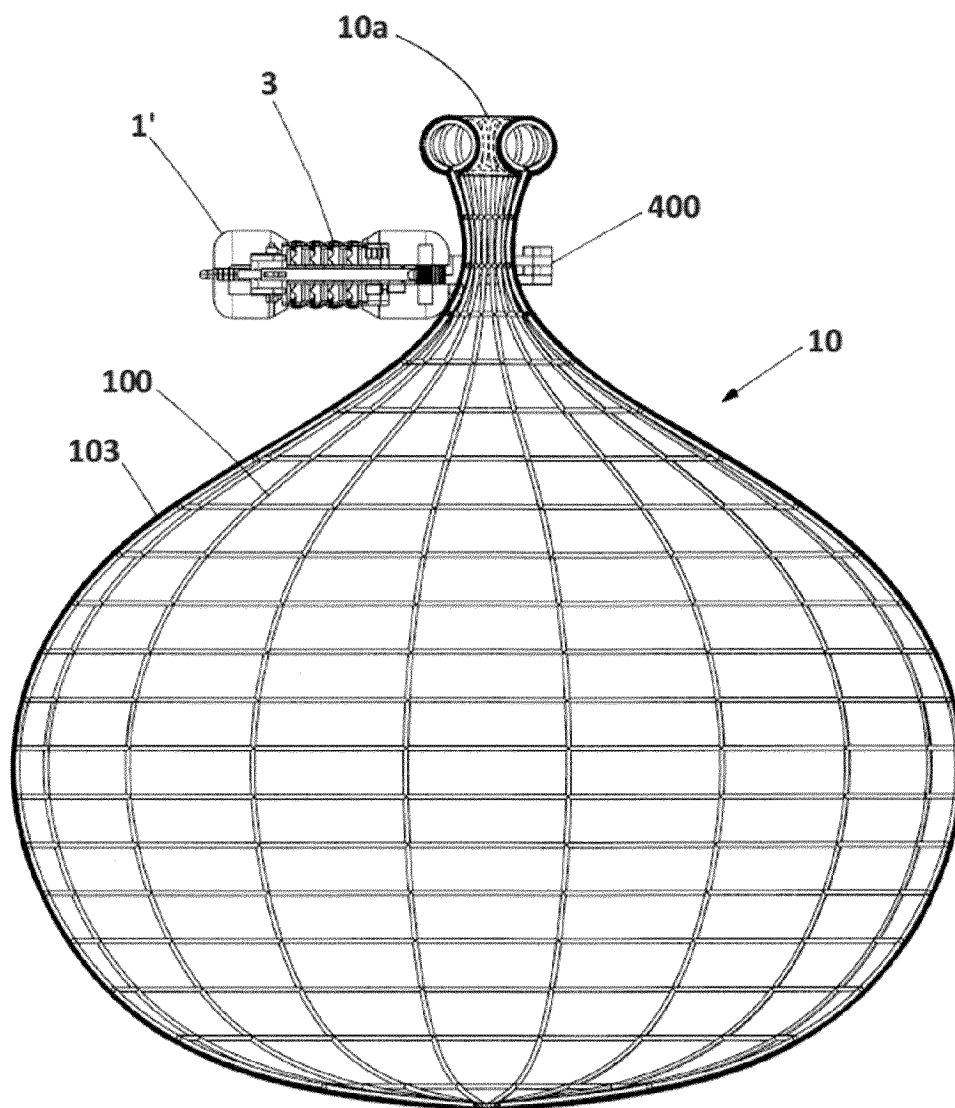


FIG. 11
A-A

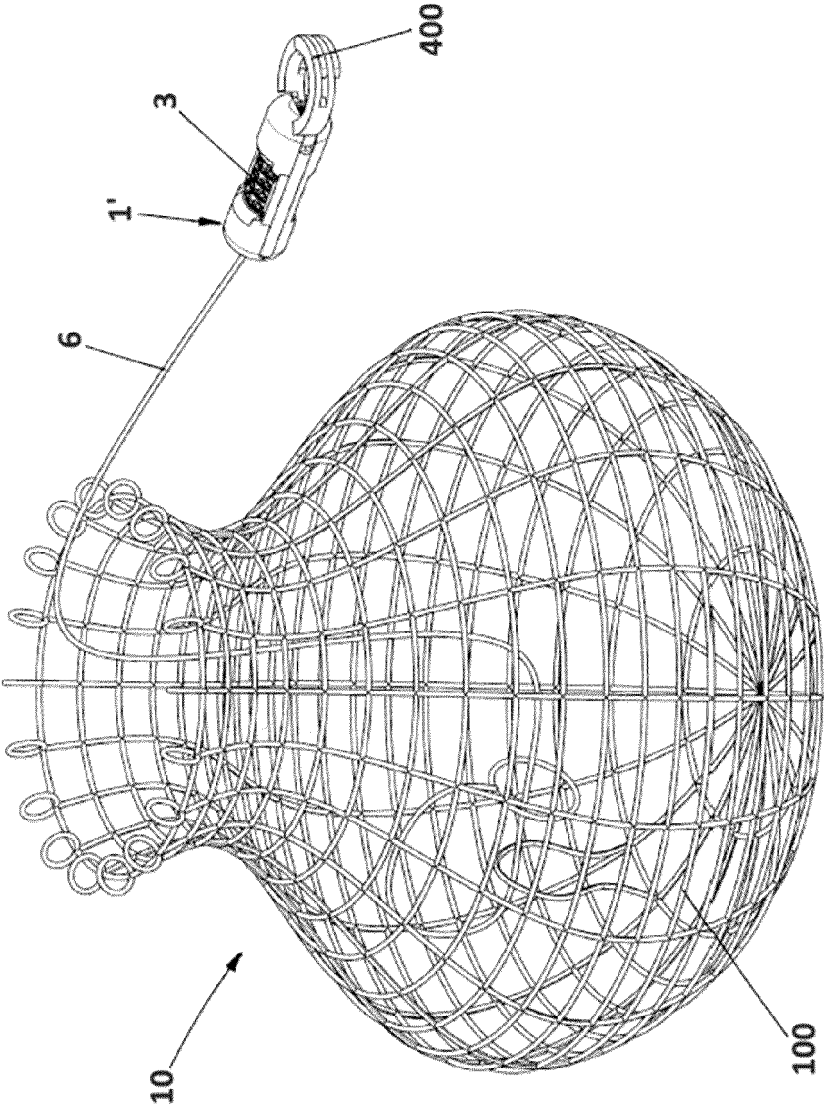


FIG. 12

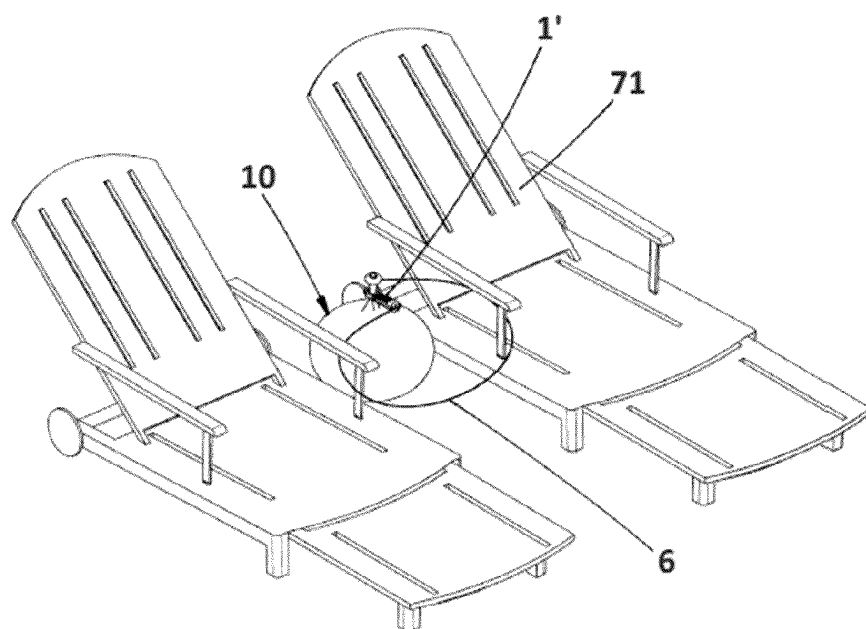


FIG. 13

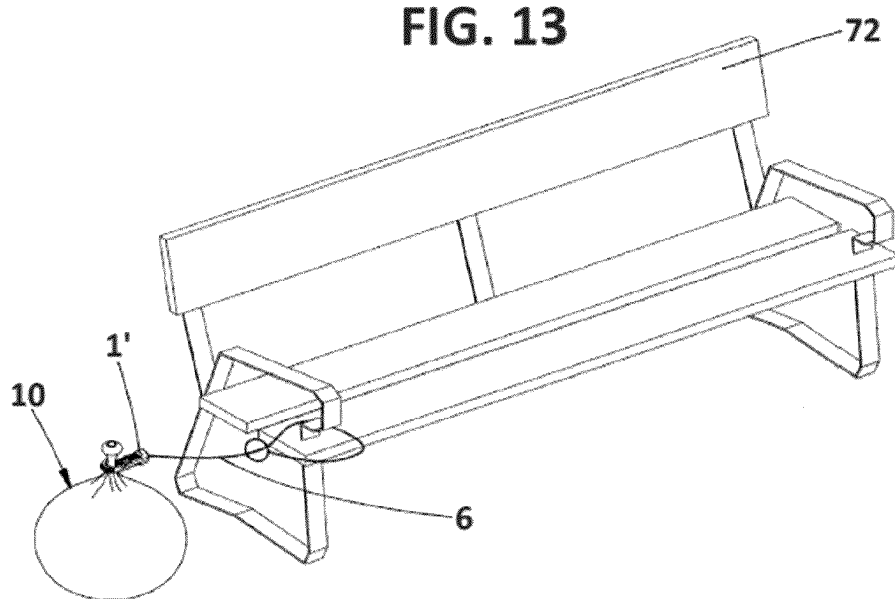


FIG. 14

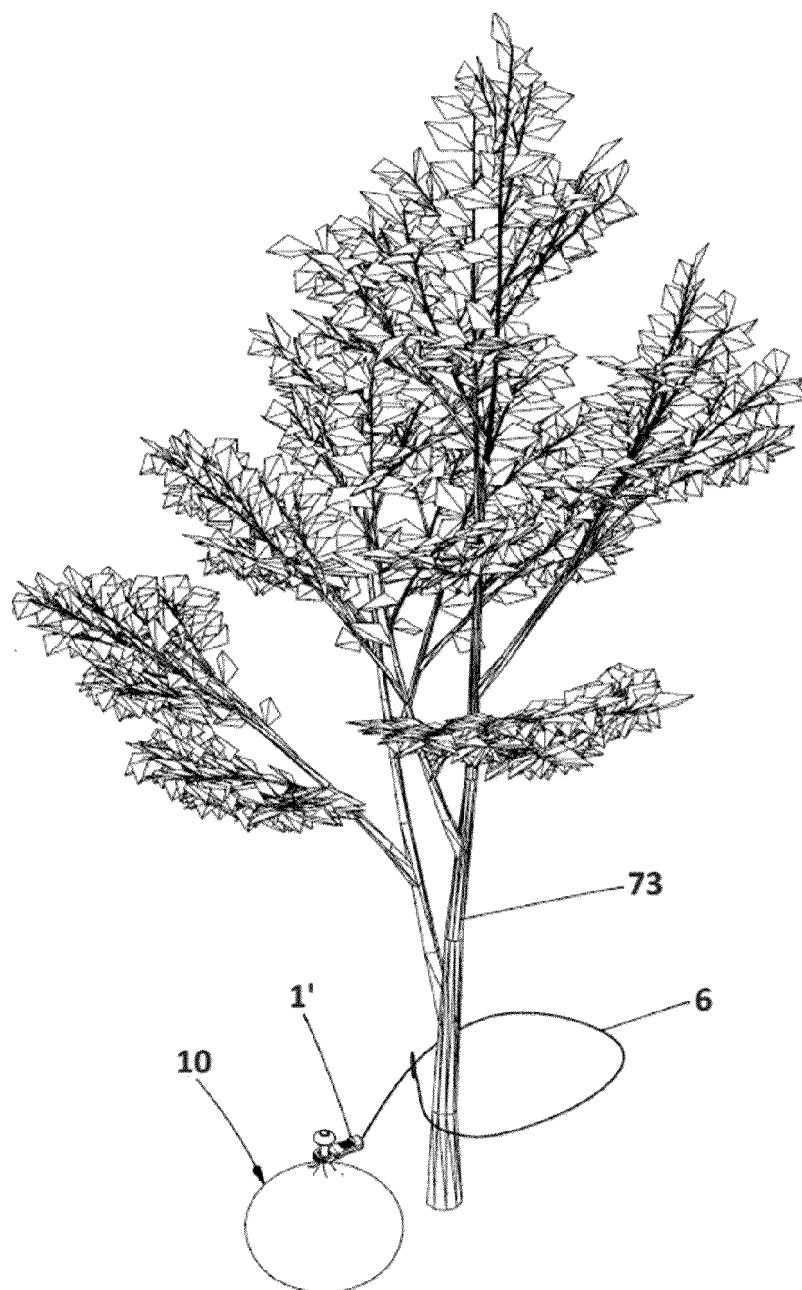


FIG. 15