

(12) INNOVATION PATENT
(19) AUSTRALIAN PATENT OFFICE

(11) Application No. **AU 2020101417 A4**

(54) Title
System For Fastening And/Or Lifting Objects

(51) International Patent Classification(s)
B66C 1/12 (2006.01)

(21) Application No: **2020101417**

(22) Date of Filing: **2020.07.20**

(30) Priority Data

(31) Number
U201931251

(32) Date
2019.07.22

(33) Country
ES

(45) Publication Date: **2020.08.20**

(45) Publication Journal Date: **2020.08.20**

(45) Granted Journal Date: **2020.08.20**

(71) Applicant(s)
Industrias Ponsa, S.A.

(72) Inventor(s)
PONSA BOSCH, Juan

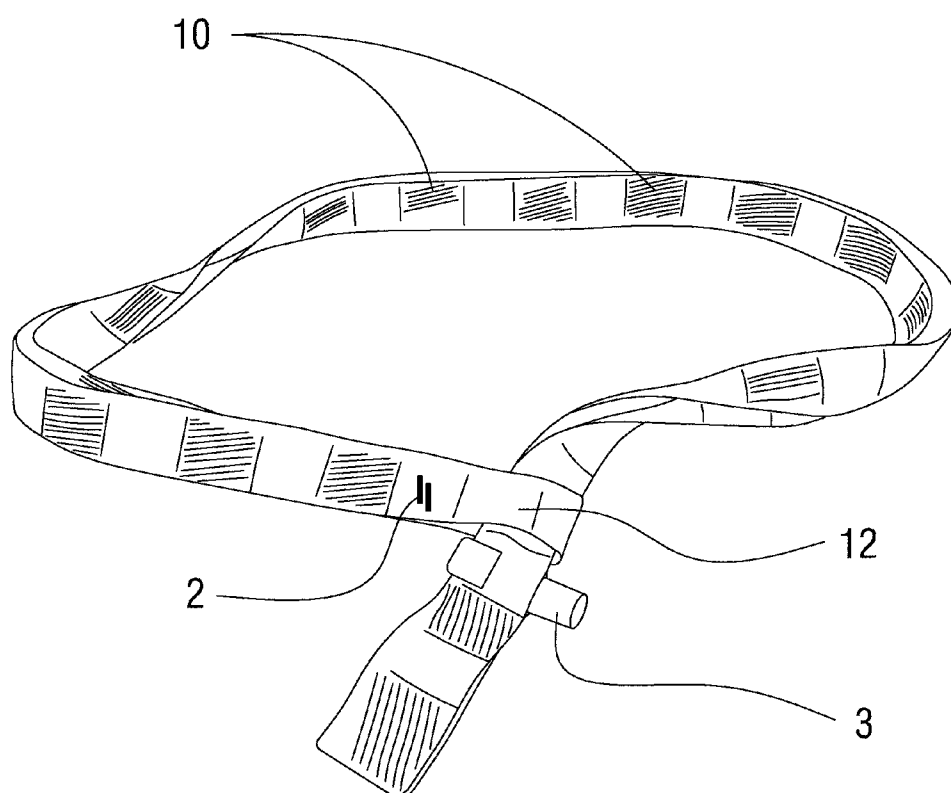
(74) Agent / Attorney
WRAYS PTY LTD, L7 863 Hay St, Perth, WA, 6000, AU

ABSTRACT

System for fastening and/or lifting objects

A system for fastening and/or lifting objects comprising an elongated sling made of a textile material made of woven threads, including a plurality of bridge segments formed by two overlapping laminar segments that define a corresponding transverse through hole, said bridge segments being arranged separately, and that one end of the sling has an eyelet segment, defining a closed loop, and wherein the dimensions of the eyelet are such that it is prepared for the insertion of one portion of the sling in an interlaced condition, and therefore the width of the eyelet segment is substantially the same as the width of the sling itself, further comprising a locking element intended to be inserted through one of the bridge segments.

FIG.3



DESCRIPTION

System for fastening and/or lifting objects

5 OBJECT OF THE INVENTION

The object of the present application is to register a system for fastening objects.

10 More specifically, the invention aims to develop a system for fastening and/or lifting objects comprising an elongated sling made of a textile material composed of woven threads, including a plurality of bridge segments formed by two overlapping laminar segments that define a corresponding transverse through hole.

15 BACKGROUND OF THE INVENTION

The handling of loads that implies the operation of lifting, either by means of crane-type lifting equipment or forklift-type lifting devices, is performed in many applications in the state of the art. In one application, wherein a load of packages or objects with shapes that are more or less uniform or different must be lifted, in addition to placing a sling on the loads, the operator must
20 also use metal straps to stabilise them, for which reason the use of straps is required, as well as a space intended for the storage thereof. Furthermore, the process for strapping or tying the packages or objects also implies a longer preparation time for the operator and an increased risk of injury or accident for the operator or handler.

25 Furthermore, the applicant is currently unaware of an invention that has all the features described in this specification.

DESCRIPTION OF THE INVENTION

30 The present invention has been developed with the aim of providing a system for fastening and/or lifting packages or objects, which is configured as a novelty within the field of application and solves the previously mentioned drawbacks, also providing other additional advantages that will be obvious from the description below.

35 Therefore, the object of the present invention is to provide a system for fastening and/or lifting objects of the type that comprises an elongated sling made of a textile material composed of

woven threads, including a plurality of bridge segments formed by two overlapping laminar segments that define a corresponding transverse through hole, said bridges arranged separately at equal or variable distances, which is characterised in that one end of the sling has an eyelet, defining a closed loop, and wherein the dimensions of the eyelet are such that it is prepared for the insertion of one portion of the sling in an interlaced condition, and therefore the width of the eyelet segment is substantially the same as the width of the sling itself, further comprising a locking element intended to be inserted through one of the bridge segments.

Thanks to these features, a simplified fastening system is obtained which reduces the need to use additional fastening elements, such as straps or ties, in operations for fastening or lifting loads, eliminating the use of metal straps or wires which are commonly used to prevent loads from coming loose when handled by lifting means.

Advantageously, the thickness of each bridge segment is less with respect to the width of the sling, such that a longitudinal region of the sling lacks any bridge segment, which facilitates the insertion of the locking element in the bridge segment, since the area that runs longitudinally along the sling and lacks the bridge segments acts as guide means.

Additionally, in order to facilitate the handling of the sling for the user, the bridge segments are made up of threads with a different chromatic property than the rest of the threads that make up the sling.

The system for fastening articles described therefore represents an innovative structure with structural and constituent features heretofore unknown for its intended purpose, reasons which, along with its usefulness, provide it with sufficient grounds for obtaining the requested exclusivity privilege.

Other features and advantages of the system for fastening or lifting articles object of the present invention will be evident in light of the description of a preferred, but not exclusive, embodiment, which is illustrated by way of a non-limiting example in the drawings which are attached, in which:

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a schematic view of the sling that forms part of the fastening and/or lifting system of the present invention;

Figure 2 is a schematic plan view of the sling of the invention; and
Figure 3 is a view of the system of the invention when in use.

DESCRIPTION OF A PREFERRED EMBODIMENT

5

In light of the aforementioned figures, and in accordance with the adopted numbering, one may observe therein an example of a preferred embodiment of the invention, which comprises the parts and elements indicated and described in detail below.

- 10 The system for fastening and/or lifting objects, articles, packages or similar items comprises an elongated sling (1) made of a textile material composed of woven threads, such as a polyester material or other fibres with a high tenacity (which can include special treatments for repelling dust or dirt), including a plurality of bridge segments (10) formed by two overlapping laminar segments, which define a corresponding through hole (11) arranged transversely with
15 respect to a longitudinal axis (E), said bridge segments (10) being arranged separated at regular intervals. One end of the sling (1) has an eyelet segment (12) formed by backstitches (2), defining a closed loop, and wherein the dimensions of the eyelet (12) are such that it is prepared for the insertion of one portion of the sling (1) in an interlaced condition, for which reason the width of the eyelet segment is substantially equal to the width of the sling itself (1),
20 further comprising a locking element (3) intended to be inserted through one of the bridge segments. This locking element (3) consists of a pin made of any suitable material, such as rigid plastic or metal.

- As seen in figure 1, the thickness of each of the bridge segments (10) is less than the thickness
25 of the sling, such that a longitudinal region (13) (indicated by the dashed lines in figure 2) of the sling (1) lacks any bridge segment (10).

It is possible for the bridge segments (10) to be made up of threads with a different chromatic property than the rest of the threads that make up the elongated sling (1).

30

The details, shapes, dimensions and other accessory elements, used to manufacture the system for fastening objects of the invention, may be suitably substituted for others which do not depart from the scope defined by the claims which are included below.

CLAIMS

1. A system for fastening and/or lifting objects comprising an elongated sling made of a textile material made of woven threads, including a plurality of bridge segments formed by two overlapping laminar segments that define a corresponding transverse through hole, said bridge segments being arranged separately, **characterised** in that one end of the sling has an eyelet segment, defining a closed loop, and wherein the dimensions of the eyelet are such that it is prepared for the insertion of one portion of the sling in an interlaced condition, and therefore the width of the eyelet segment is substantially the same as the width of the sling itself, further comprising a locking element intended to be inserted through one of the bridge segments.
2. The system for fastening and/or lifting objects according to claim 1, characterised in that the thickness of each of the bridge segments is less than the thickness of the sling, such that a longitudinal region of the sling lacks any bridge segment.
3. The system for fastening and/or lifting objects according to any one of the preceding claims, characterised in that the bridge segments are made up of threads with a different chromatic property than the rest of the threads that make up the sling.
4. The system for fastening and/or lifting objects according to claim 1, characterised in that the locking element is a pin.

FIG.1

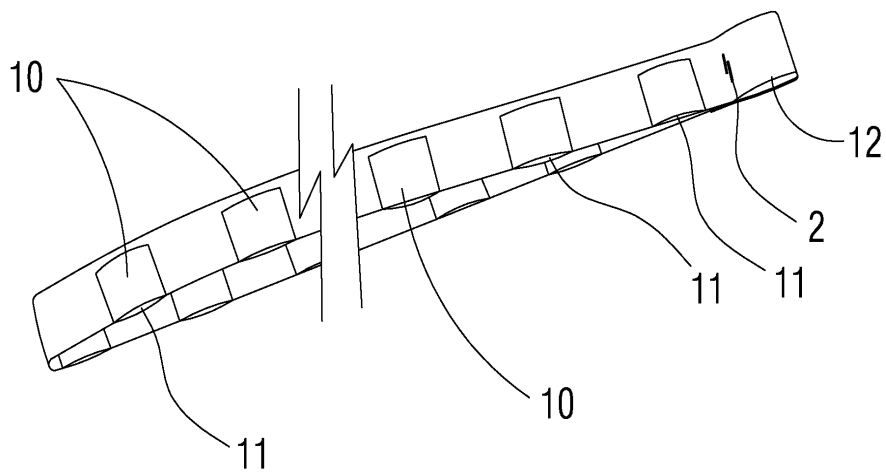


FIG.2

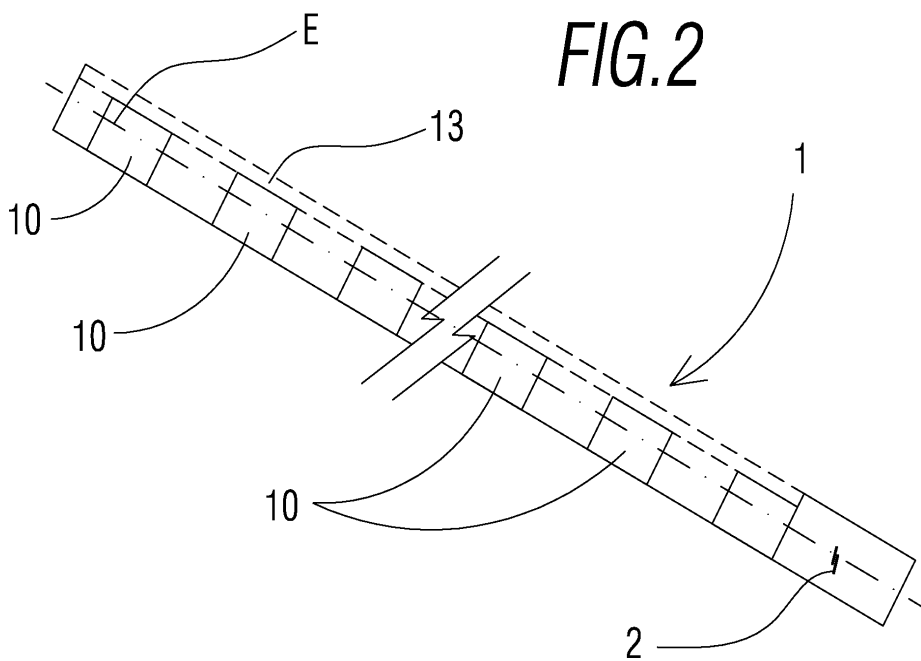


FIG.3

