(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 3 401 493 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
14.11.2018 Bulletin 2018/46

(51) Int Cl.:
E06B 9/06 *(2006.01)*

(21) Application number: **18386011.3**

(22) Date of filing: **10.05.2018**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
KH MA MD TN

(30) Priority: **10.05.2017 GR 20170100216**

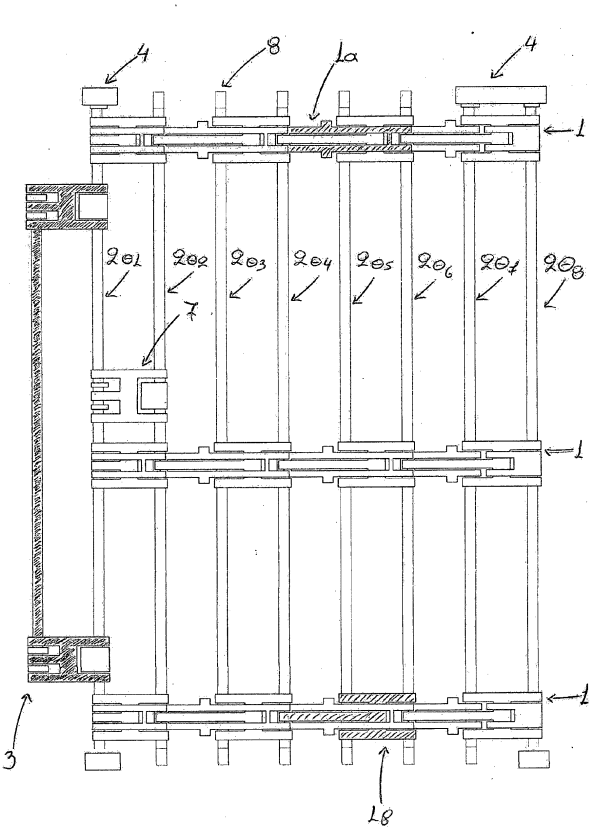
(71) Applicants:
- **Lamprinidis, Varsamis**
  161 22 Kesariani Attikis (GR)
- **Pothitos,, Dimosthenis**
  145 76 Dionisos Attikis (GR)

(72) Inventors:
- **Lamprinidis, Varsamis**
  161 22 Kesariani Attikis (GR)
- **Pothitos,, Dimosthenis**
  145 76 Dionisos Attikis (GR)

(54) RETRACTABLE OPENING SECURITY BARRIER

(57) A retractable security barrier comprising three scissor chains (1) horizontally and tubes (2) vertically, wherein said barrier does not have a fixed frame perpendicularly to the opening and the hinge (3), and said barrier further comprises bases locking bolts (4) screwed into the pre-set and the floor while it can be secured with three mushroom-shaped pins (5) at the front and two pins stainless steel (6) coming out through the last tube (2) at the back side.

Figure 1



EP 3 401 493 A1

Description

[0001] The invention relates to the retractable- opening safety device a three-piece scissor chain, the pipes Φ21, the hinge, the security barrier on the front, the pins mushroom-shaped security barrier, back stands, or with other words optics security barrier, the locking pins of the security barrier, two springs, rope for transmission, the security barrier and finally the external plugs of the tube Φ21.

[0002] The fuses of this type are not known. Perhaps someone could compares it with the folding ironmongers but they are sliding They have such a deviation as objects, as long as they are opened with the slides windows. Of course, both remain windows.

[0003] By using this security - barrier is given you the possibility of course to secure your place, this is the use, but at the same time when you don't need it, it catches the least possible space and the right position in order not to bother.

[0004] It gives you the ability to concentrate in three different positions. It has no frames that are permanently supported by the opening of the house, so when it opens, it does not affect the exterior appearance of the house. It has no guide rail at the end rail, which would most likely cause accident over time. Last and quite important, that as a product it could be packaged in [kits], since its dimensions are adjusted very easy.

[0005] The retractable security barrier is characterized by having three scissor chains (1) [Figure 1] horizontally and tubes Φ21 (2) [Figure 1] vertically, it does not have a fixed frame around the opening and the hinges (3) [Figure 1] enables it to have three places to concentrate when it opens. The locking bases (4) [Figure 1] are screwed into the pre-wall and the floor while securing with three mushroom shaped pins (5) [Figure 5] at the front and with two stainless steel pins Φ 16 (6) [Figure 11] that come out of the last Φ21 tube at the back.

[0006] The security barrier(7) [Figure 1] is on the side of the hinges, on the back part.

[0007] The main idea behind this product is to be flexible easy to push it out and while it opens to pick up at the same time so as not to take place.

[0008] The main purpose of this thought was to solve the biggest problem that the sliding retractable barriers have, that they are too vulnerable to oxidation and does not give you the lever geometrically dominates the oxidation [commonplace they stick fast and do not give you hand to be able to open them]. As the scissor of the sliding retractable security barriers is turned 90° from their axis and giving volume, turned into one multiplying that one of its three points gives pace to others hinges and this is called scissor chain (1).

[0009] Because a mesh of things is created, and all of them do a job, the number of drawings, enables us to distinguish them objects [Figure 1 - 2 - 5 - 6 - 11] or look at them as a set that performs a function [Figure 3 - 4] as well as the geometric drawings in horizontal section, [simplified shapes to understand functions on a three-dimensional grid] [Figure 7 - 8 - 9 - 10].

[0010] The scissor chain (1) consists of two pieces, always working on couple but have the ability to cut in the middle, [ieuse one of the two gaps between the two tubes (2)] [Figure 2]. It serves to change dimensions in width. The male (1α) [Figure 1 - 2] and the female (1β) [Figure 1 - 2]

[0011] The piece consists of two hoses for pipe (α) and one socket (β) or axis (γ) accordingly [Figure 2]. These centers are equally abstained and in absolute straight.

[0012] The hinges (3) [Figure 6] in parallel is an independent P, hinge tube (3α) [cf. Figure 6] with two fixed extensions hinge (3β - 3γ) [cf. Figure 6], two hinge bases (3δ - 3ε) [cf. Figure 6], which support the hinge but also all of the barrier on the wall and finally two hinge height adjusters (3ζ - 3η) [cf. Figure 6].

[0013] The pipe (2) is very important in the position (θ1). It is the first tube of the iron, it has fixed hinges height adjusters (3ζ - 3η) on it and the fixed hinge extensions (3β - 3γ) rotate freely.

[0014] Thanks to the hinge the barrier gets the properties:

A)to adjust the barrier upwards.
B)to regulate barrier offset if the opening of the walls makes it possible necessary (if it is wrong).
C)to enable the barrier to fold into or out of the opening or completely open if it bothers. [Figure 7 - 8-9]
D)to adjust the centering of the barrier. It's important for adjustment dimensional widths [Figure 10]

[0015] Something very important, the dimensions of barrier, change every ten points in width by adding one or a half piece of scissor chain (1) and one or two tubes (2) respectively. The hinge (3) regulates the intervals dimensions [centered is the same] [Figure 10]

[0016] **[Logic]** It has the ability to move right and left on the side of the hinge (3) by 7 cm, which means: The barrier has no frames, it has gaps, a good 5cm movement and therefore maximum (3) 5cm and 5cm from the other, maximum adjustment dimension 10cm [Figure 10]

[0017] At the height, it is equally easy to cut the pipes (2) in the dimensions that fits the opening and screw the scissor chains (1) accordingly. After some dimensions in height they can be attached above chains and / or less if the dimensions are defined.

[0018] While the barrier is opening, its hinges (3) give us the right for lateral movement 7cm, 5cm beneficial, two centimeters difference in the useful is the point where the mushroom barrier pin (5) fills in its effect, on the locking base (4) [This at the front barrier, up and down] [Figure 10]

[0019] The corresponding rear locking (4), that is connected to the barrier (7), are two stainless steel pins (6α - 6β) [Figure 11] which go through the last tube (2) and barrier the barrier on the back locking bases (4). [Figure 1]

[0020] There will be a table of dimensions that will de-

termine that of some dimension and beyond it gets extra barrier in the middle.

[0021] The barrier(7) [Figure 11] consists of the barrier base (7α) [see Figure 11], the locking lever (7β) [Figure 11] on the pipes (2) of the barrier which lever (7β) is attached to it two wire ropes (7γ - 7δ) [Figure 11], the wire ropes (7γ - 7δ) with their row pass through the tube (2) and are tied to the two barrier pins (6α - 6β) [up and down], which have a spring behind them (7ε - 7ζ) [Figure 11], and their end is fixed to the pipe (2) [Figure 11].

[0022] Opening the lever (7β) from the base (7α) both wire ropes are pulled (7γ - 7δ) and the pins gather (6α - 6δ). In closing we simply leave the lever (7β), the springs (7ε - 7ζ) are actuated, the pins (6α - 6β) come out and barrier in the striker (4).

[0023] A very important part is the barrier of the barrier (7th), which is mounted on the barrier lever (7β).

[0024] The navel of the barrier (7η) is the one who gives the final command[lock] to the lever (7β) onto the base (7α).

The navel of the barrier (7η), essentially the point that receives its key iron to activate any barrier ,has a decentralized barrel (7θ) [Figure 12] in the center, that rotates and activa tes any barrier.

[0025] If you remove the central fuse, you can rotate the concentrate barrel (7θ) and when the key is out, it stays permanently towards over and makes the final barrier **[the barrier between barrier base (7α) with lever (7β).]** So that you need a key to open it.

Claims

1. The foldable - opening pocket barrier consists of three scissor chains (1) **characterized by** the two sockets for tube (α) and a receptacle (β) or shaft (γ) accordingly. These centers are equally abstained and are in absolute order.

2. The hinge (3) is **characterized by** being an independent II ,hinge tube (3α) with two fixed extensions (3β - 3γ) that gives the right to the barrier works to have three places of concentration.

3. the locking bases (4) are **characterized by** having two sockets for locking pins (5) which in turn they also are **characterized by** the mushroom shape at their end.

4. The barrier (7) is **characterized by** being at the back of the barrier, on the side of the hinges and barrier with two pins on and below.

Figure 1

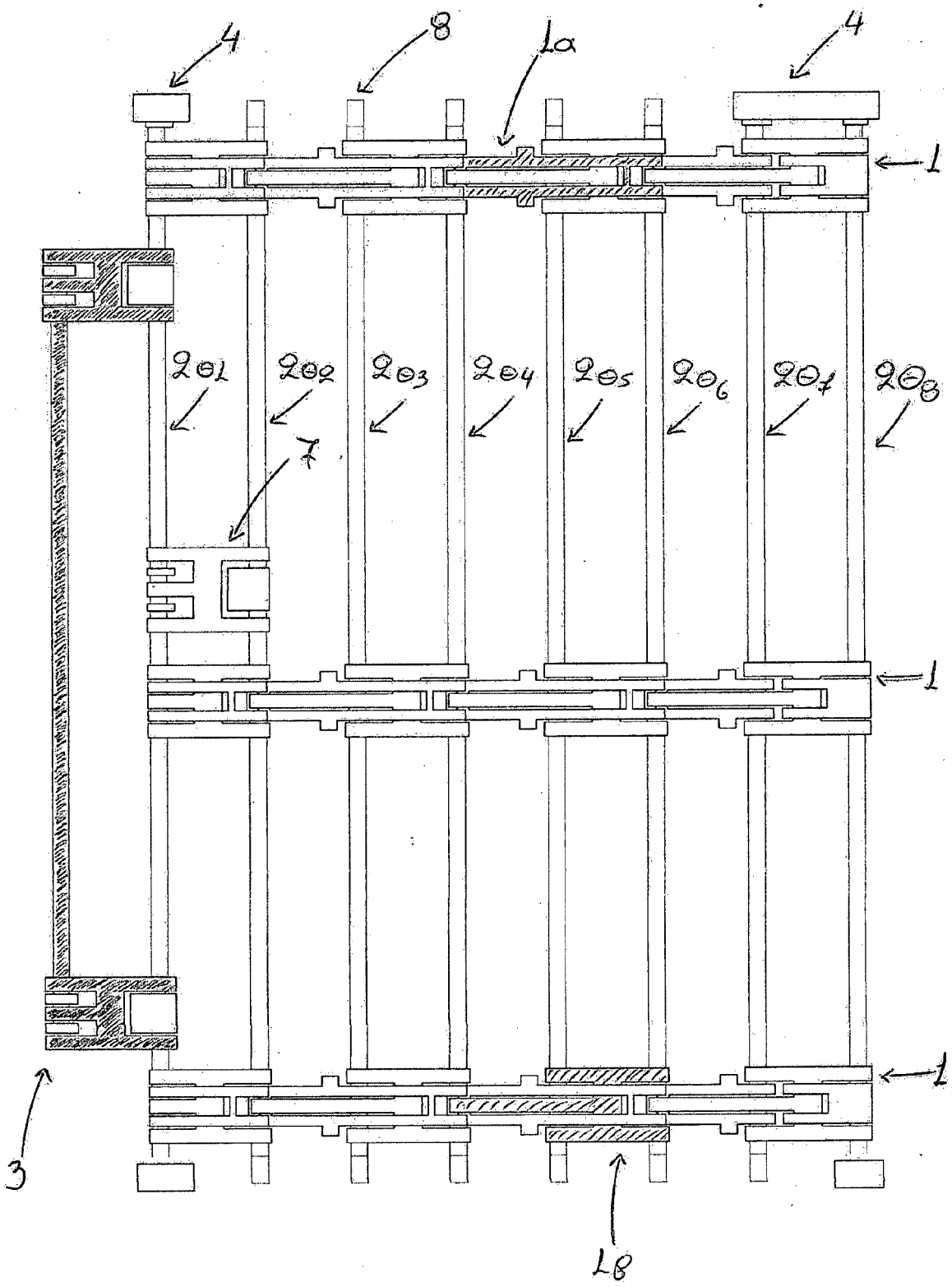


Figure 2

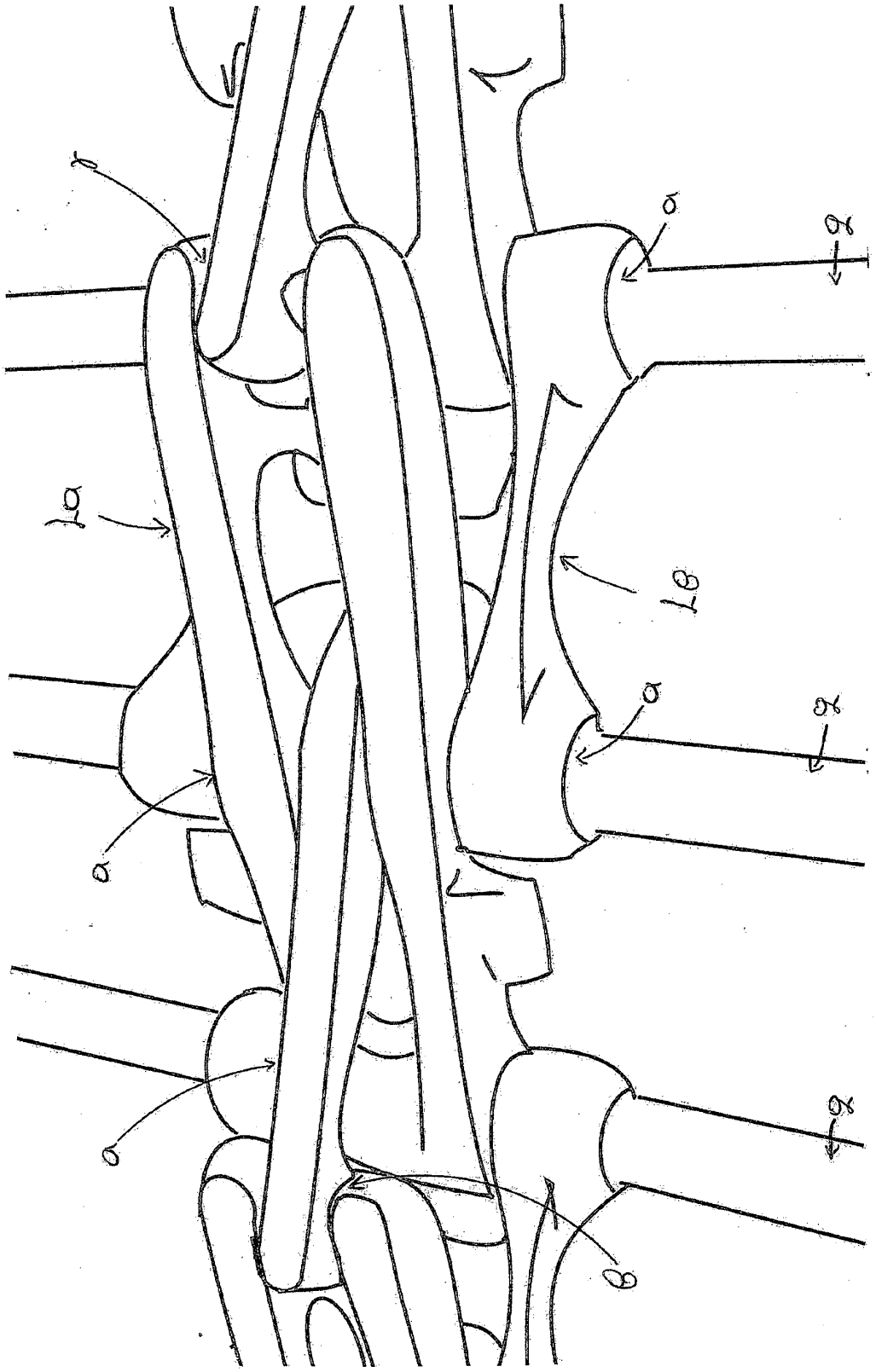


Figure 3

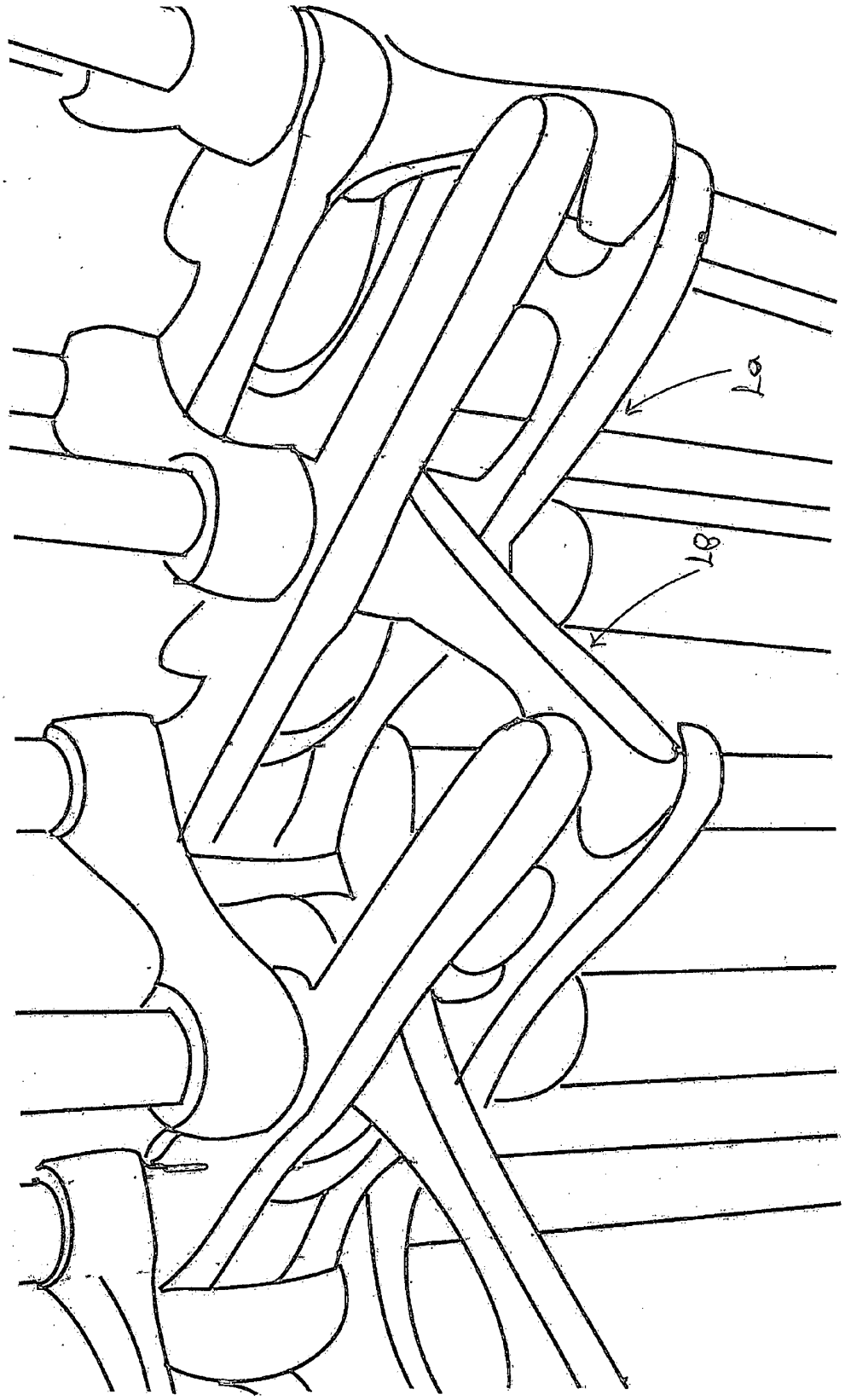


Figure 4

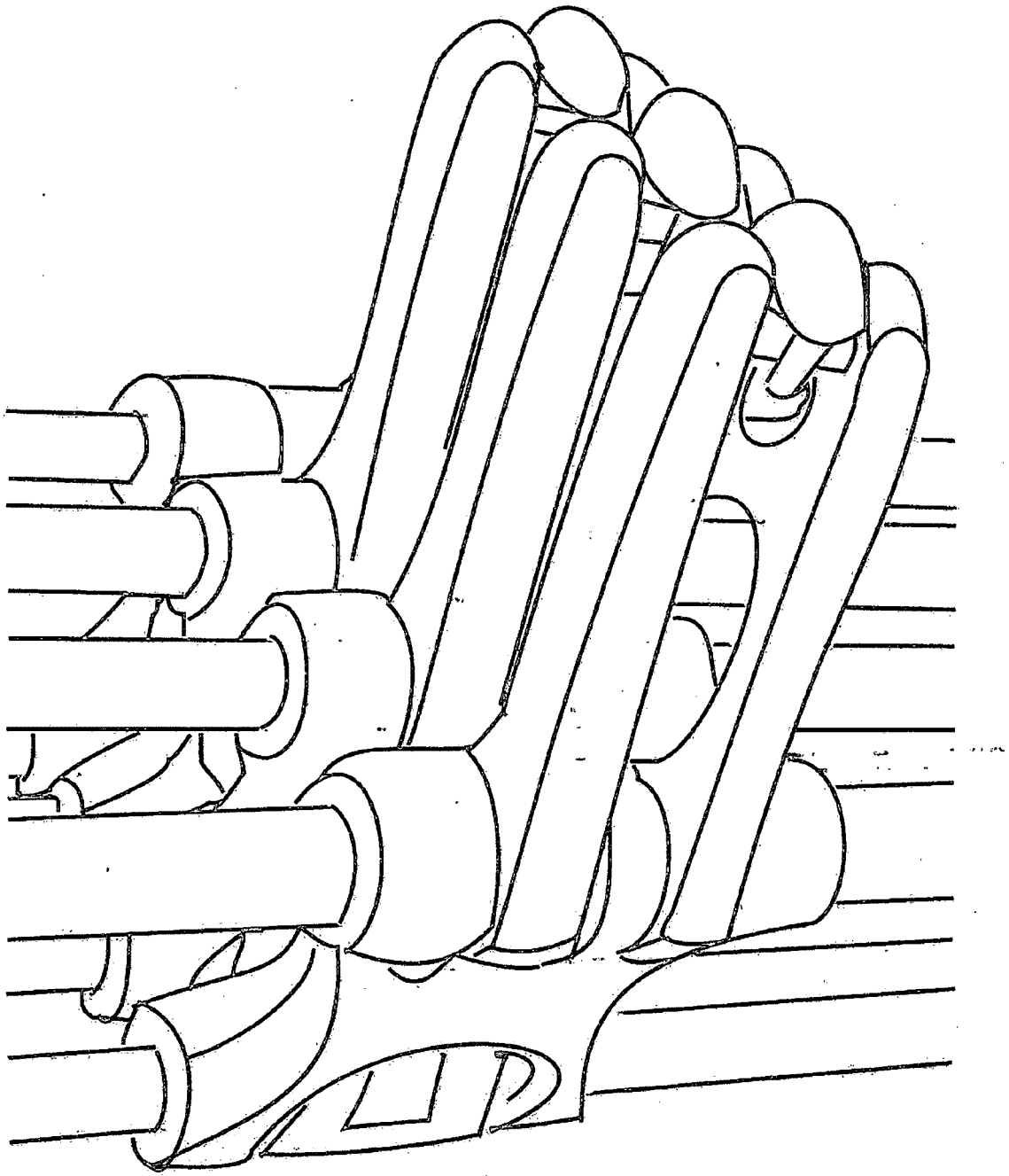


Figure 5

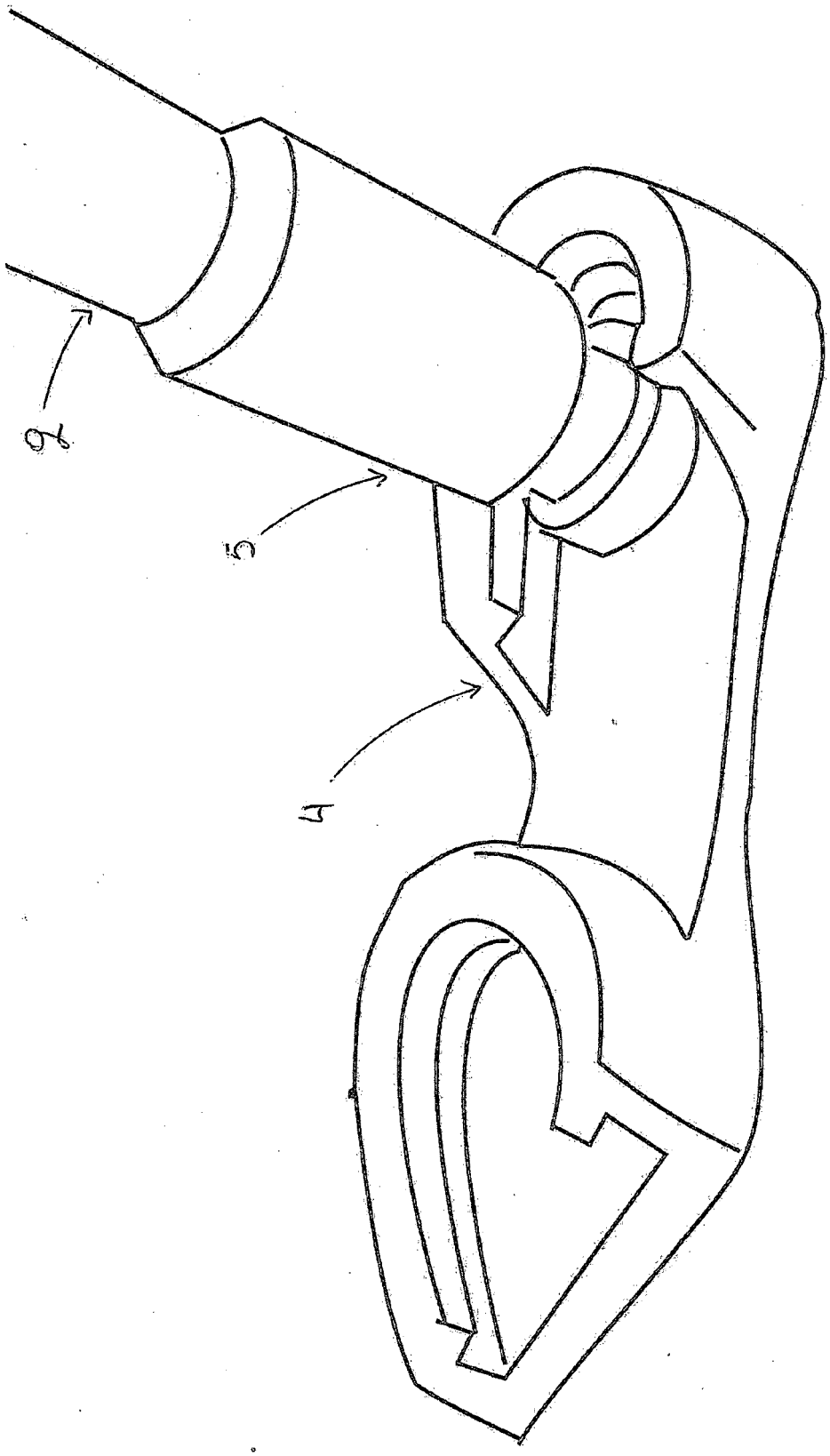


Figure 6

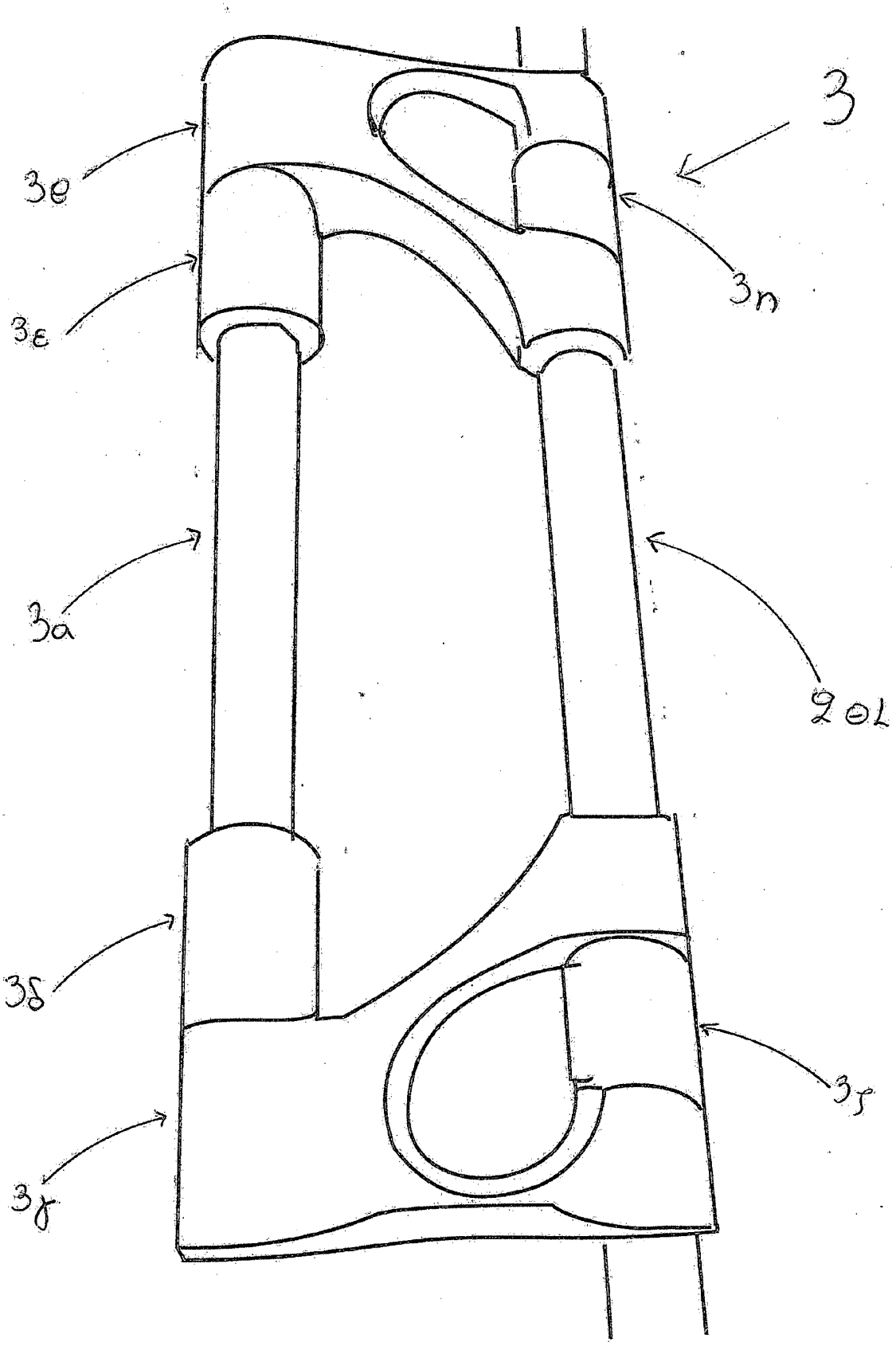


Figure 7

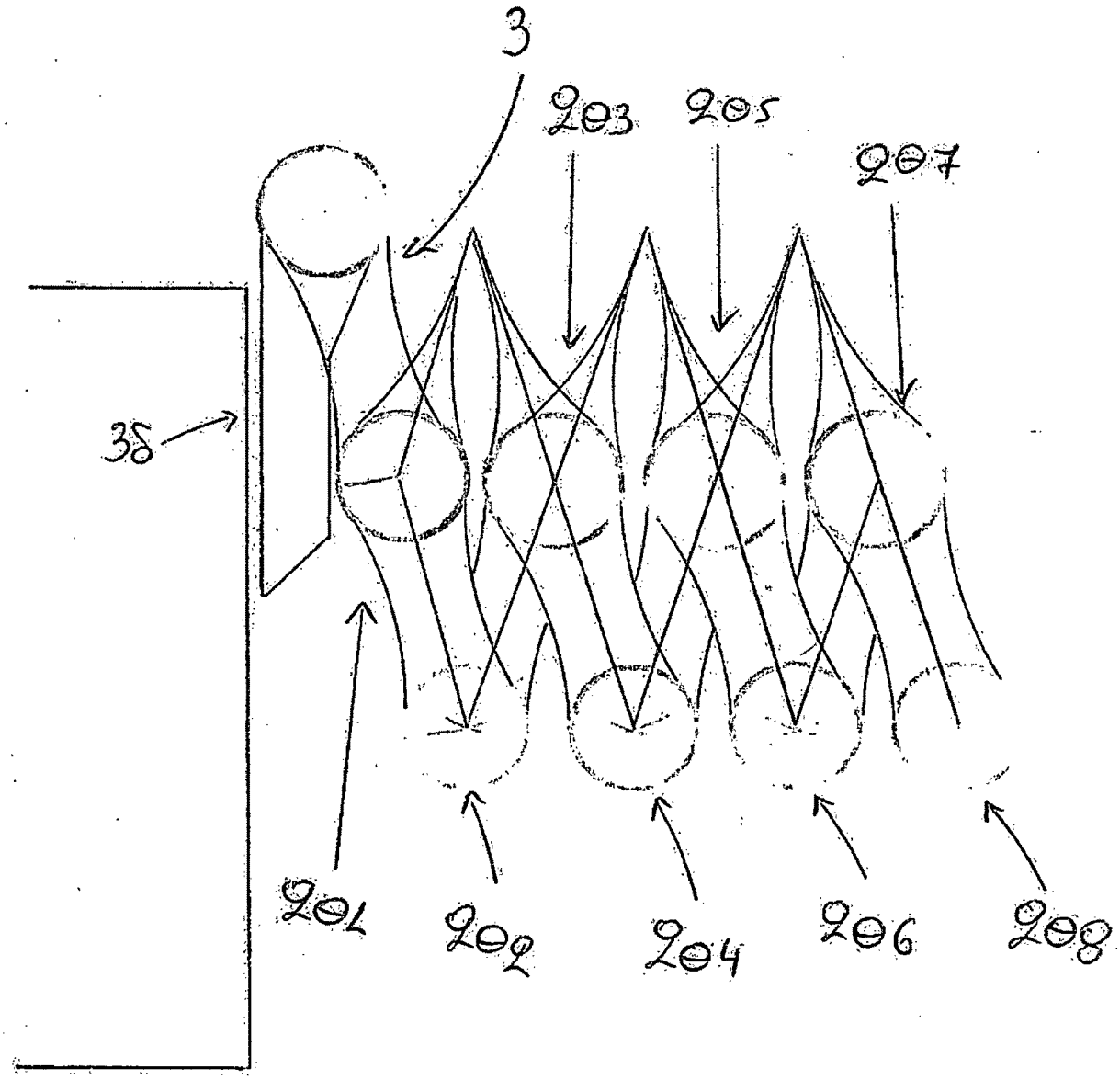


Figure 8

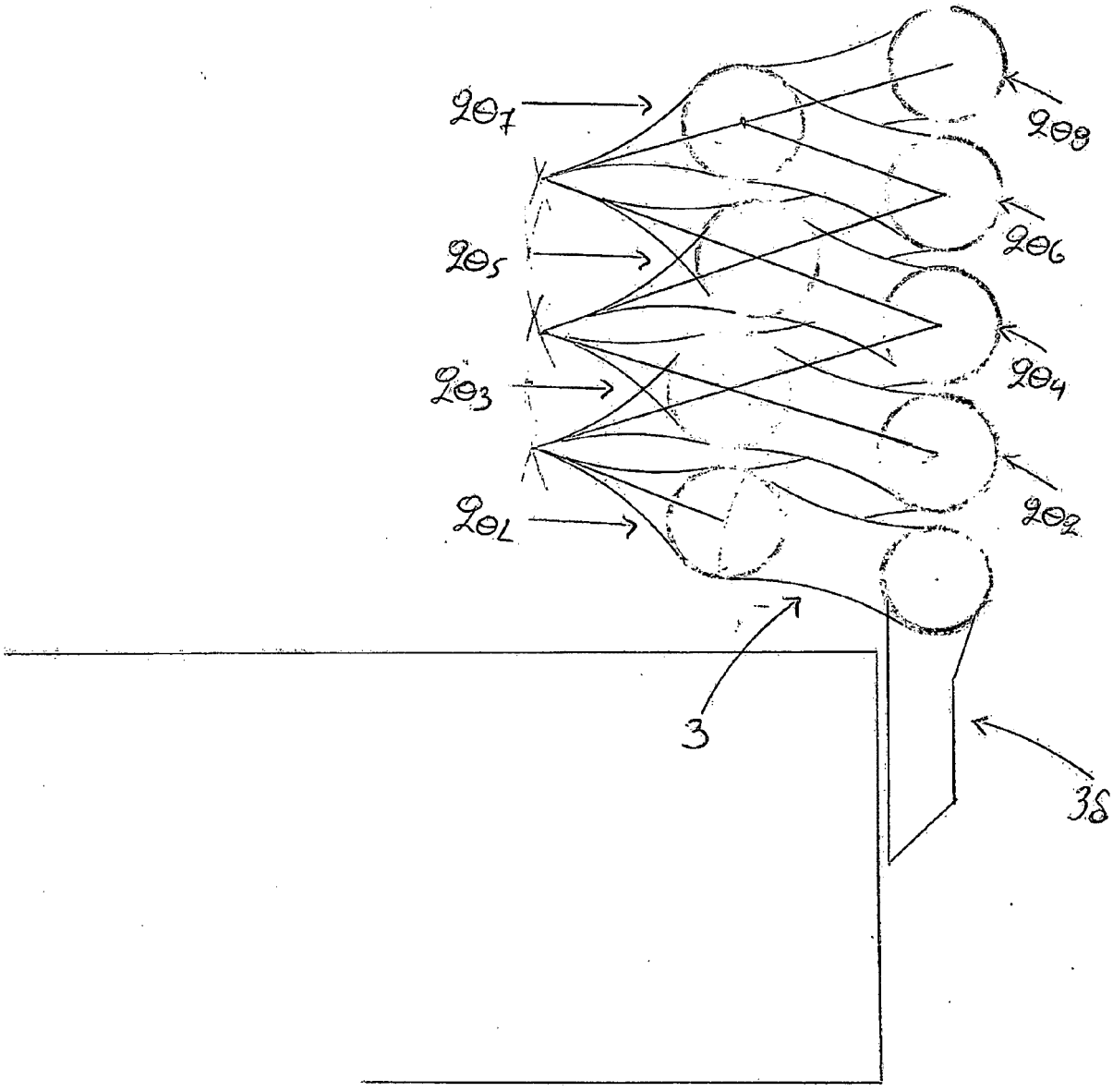


Figure 9

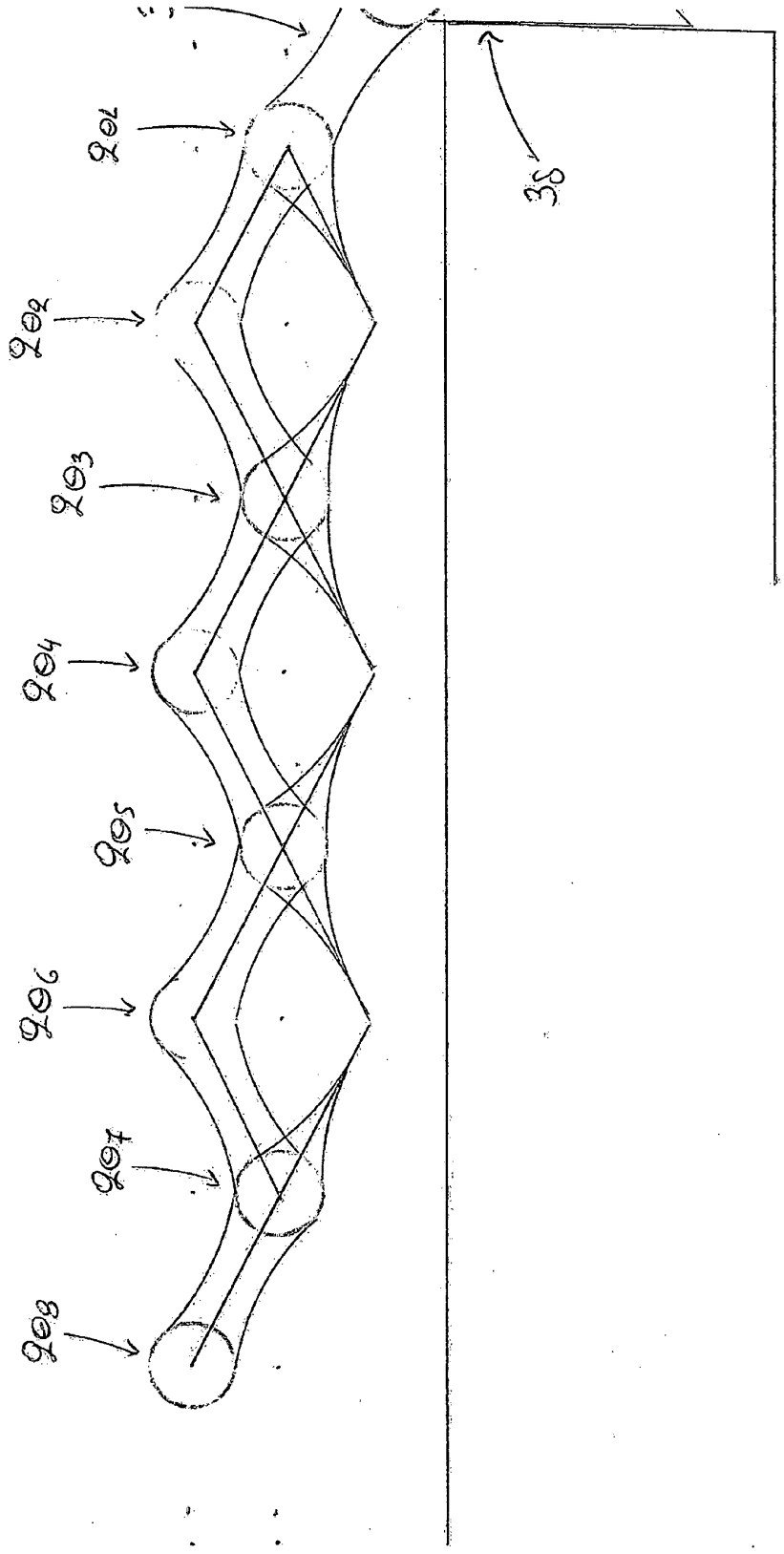


Figure 10

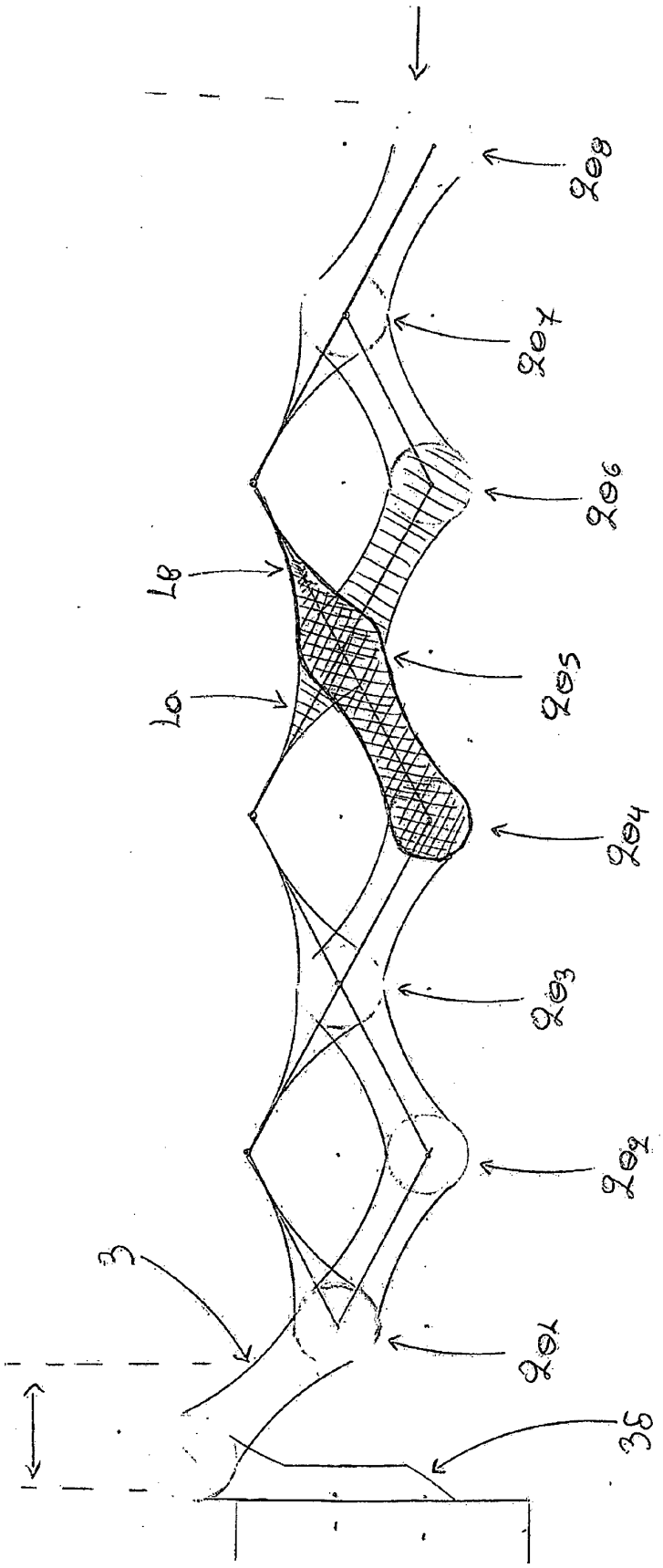
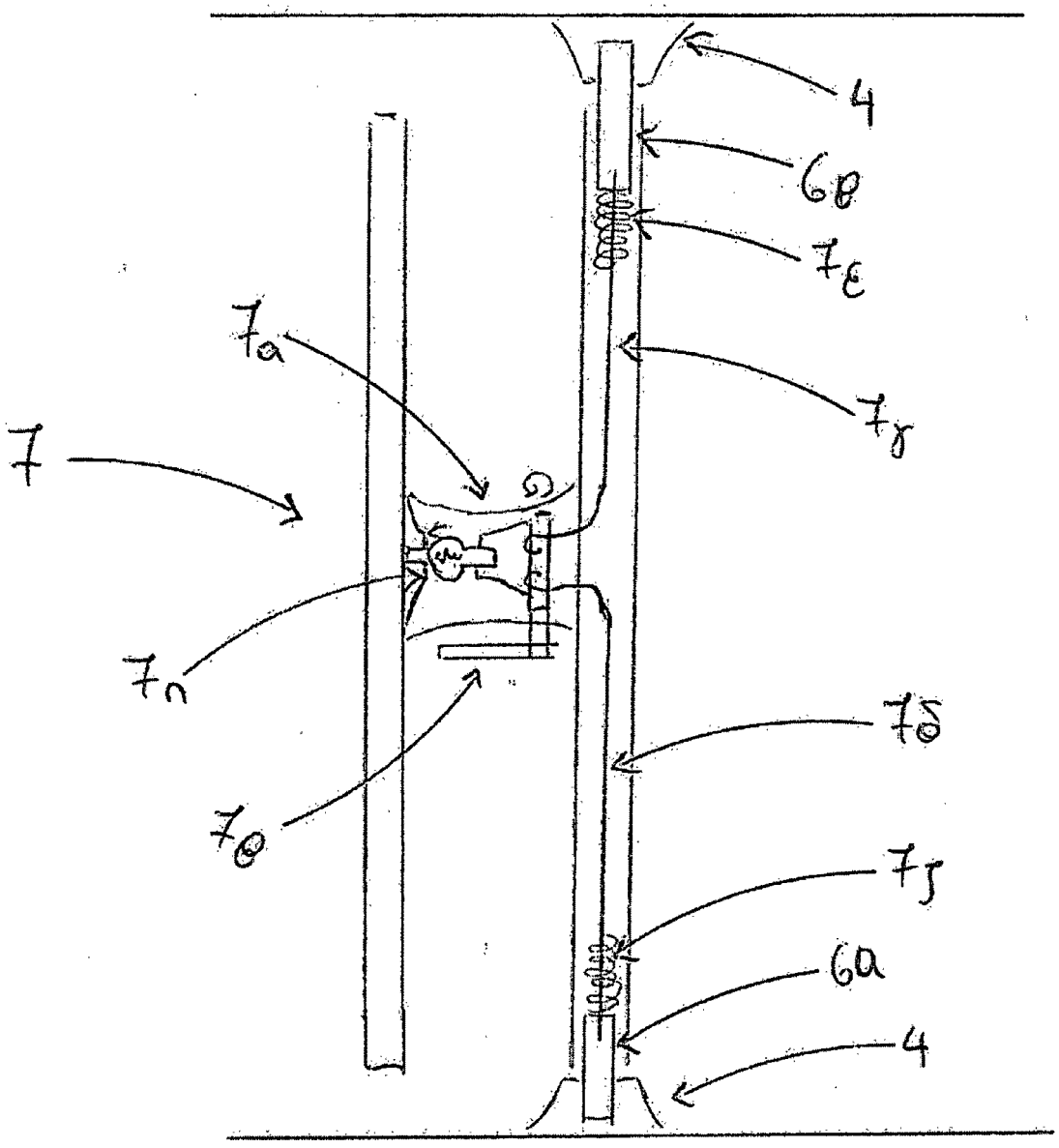


Figure 11



Europäisches Patentamt
European Patent Office
Office européen des brevets

EUROPEAN SEARCH REPORT

Application Number
EP 18 38 6011

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	GB 581 560 A (FRANCIS EDWARD GRIGGS; CHARLES RANDELL PAGE) 17 October 1946 (1946-10-17)	1,3,4	INV. E06B9/06
A	* page 2, line 79 - page 3, line 47; figure 1 *	2	

X	WO 2006/022522 A1 (YI NA HYONG [KR]) 2 March 2006 (2006-03-02)	4	
A	* abstract * * paragraph [0027]; figures 1,2,6 *	1-3	

TECHNICAL FIELDS SEARCHED (IPC)

E06B
B66B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	24 September 2018	Koulo, Anicet

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 18 38 6011

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24-09-2018

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 581560 A	17-10-1946	NONE	
WO 2006022522 A1	02-03-2006	CN 101048568 A	03-10-2007
		KR 20060018587 A	02-03-2006
		US 2007245631 A1	25-10-2007
		WO 2006022522 A1	02-03-2006

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82