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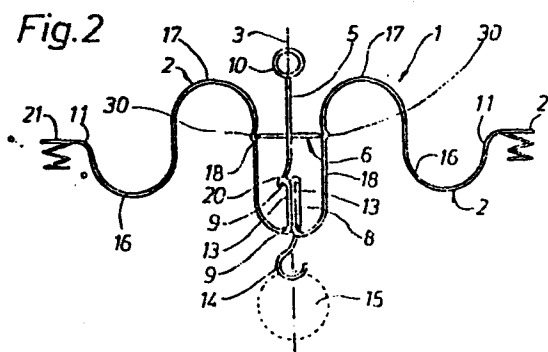
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54 A light fixture preferably for candlelight.

57 A light fixture (1), preferably for candlelights (4), comprises a plurality of arms (2) interconnected about a vertical symmetrical axis (3) and preferably made of metal wire. The arms (2) are pivotably interconnected about the vertical symmetrical axis by means of a separate, rigid, and preferably elongated holder (5). Thus the arms (2) can be locked in predetermined angular positions by means of at least one loose annular locking means (6, 7) when the candelabrum (1) is used, whereas said arms (2) can turn freely about the symmetrical axis (3) and thereby be folded towards one another in such a manner that the light fixture (1) is flattened when the locking means (6, 7) are removed.

In this manner a simple light fixture (1) is provided, the arms of which can be turned in a simple manner about a symmetrical axis after removal of one or more locking means and thereby be folded towards one another in such a manner that the light fixture in an advantageous manner only takes up little room when put away or transported.



Title: A light fixture preferably for candlelight

The invention relates to a light fixture such as a candelabrum preferably for candlelight and comprising a plurality of candlelight arms interconnected
5 about a vertical symmetrical axis and preferably made of metal wire.

German Patent Specification No. 51 41 61 discloses a light fixture of the above type, viz. in the form of a two-armed candelabrum for candlelights
10 whereby the arms of the candelabrum are formed integral with a foot and interconnected symmetrically relative to a vertical axis. The arms of the candelabrum are rigidly interconnected by means of metal wires in such a manner that an unfoldable candelabrum is formed. Consequently, the candelabrum takes
15 up relatively much room when it is to be put away or transported.

Swedish Patent Specification No. 136002 describes also a light fixture of the above type. It is a
20 question of a light fixture comprising two vertical plates provided with candlelight holders and a centrally positioned vertical slot in the uppermost portion of one plate and in the lowermost portion, respectively, of the second plate. By moving the
25 vertical plates of the light fixture away from one another it is possible to transport and put away, respectively, said flattened plates. An essential drawback applies, however, as the flattened candelabrum does not remain as a unit, said candelabrum
30 comprising several removable parts which are easily lost.

The object of the present invention is to provide a light fixture such as a candelabrum of the above type and which apart from one or more locking means comprises no loose parts, and which implies that
5 by removing the locking means the individual candlelight arms of the light fixture can be folded towards one another instead of being secured in predetermined angular positions whereby the light fixture can be flattened when not used.

10 The light fixture according to the invention is characterised in that the candlelight arms are pivotably secured to one another about the vertical symmetrical axis by means of a separate, rigid and preferably elongated holder, and that when the
15 light fixture is used the candlelight arms are lockable in predetermined angular positions by means of at least one removable annular locking means, whereas when said locking means has been removed the candlelight arms can turn freely about
20 the symmetrical axis and thus be folded towards one another in such a manner that the light fixture is flattened.

When the light fixture is to be used, the candlelight arms are turned from the flattened state and
25 into the positions adjacent the predetermined angular positions. Subsequently, one or more locking means are situated in locking engagement with the candlelight arms which are thereby positioned and retained in the predetermined angular positions.
30 Now light sources such as candlelights can be situated in all the candlelight holders of the candlelight arms. After use, i.e. for instance when the

candlelights are burnt down, the candlelight arms can be turned freely about the symmetrical axis upon removal of the locking means and thereby be folded towards one another so as to allow a flattening of the light fixture. When flattened the light fixture requires only little room which is an advantage both with respect to transport and with respect to putting away. Beyond the annular locking means the light fixture is advantageously free of loose parts.

All the parts of the light fixture may in a simple manner be made of metal wire. According to a particularly advantageous embodiment of the light fixture according to the invention the locking means may be situated on a plane perpendicular to the symmetrical axis.

When each candlelight arm of the light fixture comprises a first and a second end part as well as a plurality of intermediary parts, whereby the first end part comprises a substantially vertical, preferably slightly conical, and optionally helically shaped candlelight holder, one of the intermediary parts of each candlelight arm may preferably be elongated and extend substantially parallel to the vertical symmetrical axis, and each candlelight arm may comprise one or more bulges situated between two neighbouring intermediary parts, said bulges engaging the annular locking means, and all the candlelight holders may be situated on at least one plane perpendicular to the symmetrical axis. In this manner a simple embodiment of the individual candlelight arms as well as a good securing thereof

is obtained when they are retained in the predetermined angular positions by the locking means engaging the bulges of the candlelight arms.

Furthermore according to the invention the locking
5 means may be formed by a plurality of curved portions lockingly engaging the bulge of a candlelight arm at their transitions, and the number of transitions may at least correspond to the number of candlelight arms. In this manner the locking means
10 can be very simply manufactured at the same time as the above good retaining of the candlelight arms in the predetermined angular positions is ensured.

Moreover according to the invention the holder may
15 comprise a rectilinear intermediary portion and an annular portion shaped at each end of the intermediary portion and gripping about the elongated intermediary parts of all the candlelight arms, the rectilinear intermediary portion of the holder
20 being of almost the same extent along the symmetrical axis as the elongated intermediary parts of the candlelight arms, whereby a reliable and simple retaining of the candlelight arms about the symmetrical axis is achieved, which implies that the
25 candlelight arms can be easily turned about said axis.

According to the invention the holder may in a particularly simple manner be a tube.

Moreover according to the invention the second end
30 part of each candlelight arm may be formed as a

hook means and engage an associated locking part on a second annular locking means serving as foot for the light fixture, said second annular locking means being of such a great diameter that the light
5 fixture stands reliably firmly on a supporting surface, and whereby the number of associated locking parts at least corresponds to the number of candlelight arms. In this manner the light fixture optionally formed as a candelabrum can be situated
10 on a tabletop or the like base.

In addition according to the invention the second end part of each candlelight arm may comprise a candlelight holder too, and each candlelight arm may comprise two bulges, whereby the manufacturing
15 the light fixture is simple in spite of the number of light sources, as it comprises relatively few parts.

Furthermore according to the invention the candlelight holder of the first end part may be situated
20 on the same horizontal plane as the candlelight holder of the second end part, and all the bulges of the candlelight arms may engage the same annular locking means, whereby all the candlelight holders are situated on the same plane allowing a particularly simple embodiment of the candelabrum.
25

In addition according to the invention the candlelight holder of the first end part may be situated on a different horizontal plane compared to the plane on which the candlelight holder of the second
30 end part is positioned, and the two bulges of each candlelight arm may engage their respective annular

locking means. As a result, the light fixture is shaped as a candelabrum with candlelight holders positioned on several superjacent planes, and the candelabrum is then particularly decorative.

5 Moreover according to the invention the holder may at the uppermost annular portion be upwardly extended and end in a ring or hook for the suspension of the chandelier, whereby the light fixture is shaped as a chandelier suspendable in a particularly simple manner.
10

Furthermore according to the invention the holder may at the lowermost annular portion be downwardly extended and end in a ring or a hook engaging a supporting member such as for instance an iron
15 ball with a foot, whereby the candelabrum for instance can be situated on a table with the foot resting on the tabletop. In this manner the candelabrum can for instance be situated on a table or the iron ball can have a decorative effect through
20 the suspension of the candelabrum. Thus the light fixture may be shaped as a candelabrum with an arbitrary number of candlelight arms comprising candlelight holders on one or two superjacent planes. The candlelight arms and the locking means
25 may advantageously also be made of another material than metal wire such as for instance plastics while employing injection moulding. Furthermore, the candelabrum may be decorated in many different ways in response to the use in question. In addition,
30 the candlelight holders may be shaped in other ways than the above, and on top of each holder for instance a slightly conical ring can be arranged

through which the candlelight is inserted in the candlelight holder. This ring is decorative and it collects the stearin running down the candle when said candle is lit.

5 Finally according to the invention the vertical intermediary portion of the holder may be of almost the same extent along the symmetrical axis as the elongated intermediary parts of the candlelight arms and is of a length corresponding to 5-11,
10 preferably 8-10, especially substantially 9 times the diameter of the annular portions, preferably the uppermost annular portion. This embodiment is particularly advantageous when the light fixture is made of metal wire and intended for candlelight.
15 As the holder is very elongated and narrow it requires relatively little room when the fixture is folded as well as it assists in ensuring a reliable retaining of the candlelight arms in their angular positions when the fixture is used. The retaining
20 is efficient even in case the candlelights are rather heavy.

The invention will be described below with reference to the accompanying drawing, in which

Figure 1 is a top view of a light fixture according
25 to the invention with four candlelight arms,

Figure 2 is a sectional view of the light fixture of Figure 1 taken along the line II-II of Figure 1,

Figure 3 is a top view of a second embodiment of a multi-armed light fixture to be suspended and with

ten candlelight arms positioned on two different planes,

Figure 4 is a sectional view of the embodiment of Figure 3 taken along the line IV-IV of Figure 3, the upper arm, however, being turned into the same plane as the lower arm for the sake of clarity,

Figure 5 is a perspective view of the holder of the fixture of Figure 4,

Figure 6 is a perspective view of a third embodiment of a fixture with six candlelight arms positioned on two different planes,

Figure 7 is a perspective view of a fourth embodiment of a light fixture in the form of a candelabrum to be situated on a permanent base and with six candlelight arms positioned on two different planes,

Figure 8 is a perspective view of a fifth embodiment of a candelabrum according to the invention to be situated on a table or the like and with five candlelight arms positioned on one plane, and

Figure 9 is a perspective view of a tube-shaped holder.

The light fixture 1 of Figure 1 is shaped as a chandelier, but may also be shaped as a candelabrum comprising four candlelight arms 2, an annular locking means 6 as well as a holder 5. The candlelight arms 2 are pivotably interconnected by means of the holder 5 about a vertical symmetrical axis

3. Each candlelight arm 2 comprises a first end part 11, a second end part 12, as well as intermediary parts 13, 16, 17, 18 positioned between said first end part 11 and said second end part 12. The intermediary part 13 is elongated and extends substantially parallel to the vertical symmetrical axis 3, cf. Figure 2. The holder 5 comprises a rectilinear intermediary portion 8 and an annular portion 9 shaped at each end of the intermediary portion 8. The annular portion 9 grips about all the elongated intermediary parts 13 of the candlelight arms 2. The rectilinear portion 8 is of almost the same extent along the symmetrical axis 3 as the elongated intermediary parts 13 of the candlelight arms 2, cf. Figure 5. By this embodiment of the candelabrum 1 the annular locking means 6 is formed by four curved portions 31 continuing into one another at four transitions 32. Each candlelight arm 2 comprises furthermore a bulge 30 between the intermediary parts 17 and 18. The bulges 30 engage the transitions 32 of the annular locking means when the candlelight arms are to be locked in predetermined angular positions when the light fixture 1 is to be used. By the embodiment of Figures 1 and 2 of the light fixture the candlelight arms 2 are locked perpendicular to one another. The locking means 6 is positioned on a plane perpendicular to the symmetrical axis 3.

When the light fixture 1 is to be put away or transported after use, the annular locking means 6 is removed whereafter the candlelight arms 2 turnable about the vertical symmetrical axis 3 are folded towards one another, cf. the arrows A of Figure 1,

in such a manner that the candelabrum 1 is flattened. The flattened state of the holders is indicated by a dotted line in Figure 1. In this manner the light fixture 1 requires very little room when
5 put away or transported. Thus it is easy to transport the light fixture in a flat bag.

By the embodiment of Figures 1 and 2 each candle-light arm 2 comprises a vertical candle holder 21 situated at the first end part 22 of said arm,
10 said holder preferably being slightly conical and optionally helically shaped. In this manner a candle can easily be squeezed into the holder 21. The intermediary parts 16, 17 extend into one another and are by this embodiment shaped in a simple manner
15 like two semicircles. Via the bulge 30 the intermediary part 17 continues into the intermediary part 18 in turn extending parallel to the vertical symmetrical axis 3. Subsequently, the intermediary part 18 extends via a curved portion preferably
20 formed by a quarter-circle into the intermediary part 13 parallel to the symmetrical axis 3. The intermediary part 13 ends in a hook 20 gripping about the uppermost annular portion 9 of the holder
5.

25 By the embodiments of Figures 1, 2, and 3, 4 the upper end of the holder 5 continues into a ring 10 suitable for the suspension of the light fixture in such a manner that said light fixture serves as a chandelier. Furthermore, the lower end of the
30 holder 5 may continue into a hook 14 allowing suspension of for instance a decorative article such as a ball 15 or the like. The hook 14 allows fur-

thermore a suspension of a second chandelier 1 according to the invention and with a ring 10 for the suspension in such a manner that the chandeliers are vertically suspended above one another.

5 Figures 3 and 4 illustrate a second embodiment of the light fixture 1 according to the invention. By this embodiment the candelabrum 1 comprises two annular locking means 6. Each locking means 6 is formed by five curved portions 31 with five transi-
10 tions 32. The light fixture 1 comprises five candlelight arms 2, each arm comprising two candle holders 21, 22. One holder 21 is shaped integral with the first end part 11, and the second holder 22 is shaped integral with the second end part 12. All
15 the candle holders 21 are positioned on the same horizontal plane C positioned vertical above the second horizontal plane B in which all the holders 22 are positioned.

For the sake of clarity Figure 3 only illustrates
20 one of the holders 21 and one of the holders 22, and the right of Figure 4 illustrates only part of a second candlelight arm 2 for the sake of clarity.

Each candlelight arm 2 of the light fixture of Figures 3 and 4 is shaped in the following manner:
25 The holder 21 extends into an intermediary part 16 shaped as a semicircle and continuing into an intermediary part 17 also shaped as a semicircle. The intermediary part 17 extends via a bulge 30 into an intermediary part 18 preferably shaped as a
30 quarter circle and extending into the intermediary part 13 extending parallel to the symmetrical axis

3. The latter intermediary part 13 extends into a second intermediary part 18 continuing via a second bulge 33 into a second intermediary part 17 in turn extending into a second intermediary part 16
5 ending in the second holder 22. The intermediary parts of the embodiment shown situated above the intermediary part 13 of each candlelight arm 2 form an angle of about 36° with the intermediary parts of the candlelight arm 2 below the interme-
10 diary part 13, cf. Figure 3. In this manner the fixture 1 is manufactured in a more simple manner and it comprises advantageously less loose parts than previously before said loose parts are assembled by means of the holder 5.

15 Figure 5 illustrates a portion of the holder 5. This holder 5 may, however, be shaped in several other ways such as for instance like a tube.

Figure 6 illustrates a third embodiment of the light fixture according to the invention, said
20 third embodiment, however, corresponding to the embodiment of Figure 4 concerning the form of the candle light arms 2. This embodiment appears with three candlelight arms provided with holders 21, 22 positioned on two different planes. A ring 35
25 is situated on top of each candle holder 21, 22, said ring upwardly being slightly conical. At this ring 35 each candle 4 is to be inserted when it is to be placed in the holder 21, 22. Beyond the decorative effect the ring 35 can collect the stearin
30 running down the candle 4.

The intermediary parts 16, 17, 18 of the candlelight

arms 2 may be formed in a manner differing from the embodiment of Figure 6 whereby the intermediary parts 18 extend downwards before they continue into the intermediary parts 17 via the bulges. By
5 the embodiment of Figure 7, the light fixture 1 comprises only a lower hook 14 for instance engaging an iron ball 15 in such a manner that the light fixture 1 can be situated on a permanent supporting surface such as a table.

10 Figure 8 illustrates a fifth embodiment of the light fixture 1 according to the invention and with five candlelight arms 2. Each candlelight arm 2 comprises a candle holder 21, all said holders 21 being positioned on the same plane. The interme-
15 diary part 19 of each candlelight arm 2 is situated below the intermediary part 13 of the arm 2 extending parallel to the symmetrical axis 3 and is preferably shaped as a quarter circle of a great radius compared to the radius of the remaining intermediary
20 parts 16, 17, 18. The other end part 12 of the candlelight arm 2 is preferably shaped as a hook means 40 engaging the locking members 41 of a second locking means 7. The locking means 7 is of a rela-
25 tively great diameter, whereby a foot is provided on the light fixture 1 in such a manner that said fixture can stand firmly and reliably on a table. After use of the light fixture 1, both the annular locking means 6 and the annular locking means 7 serving as a foot are removed whereafter the candle-
30 light arms 2 can be folded towards each other in the manner previously described and so that the light fixture 1 can be flattened.

The holder 5 of Figure 9 is shaped as a tube where metal wire lengths in the form of a ring 10 are welded onto one end of said tube and metal wire lengths in the form of a hook 14 are welded onto the other end of said tube.

The embodiments of the drawing of the light fixture are preferably made of metal wire. The entire fixture 1 or portions thereof may, however, be made of other materials such as for instance of plastics by injection moulding. The light fixture 1 can be used for many different purposes. It may for instance be provided with four candlelight arms and thereby be used in connection with or for a Christmas advent garland. The particularly advantageous embodiment of the fixture, i.e. that the arms can be folded towards one another after removal of the locking means, implies that it is easy to transport and for instance to bring along in a rucksack or the like.

The present invention has been described with reference to particular embodiments. Many modifications can, however, be carried out without thereby deviating from the scope of the invention. Thus the candelabrum can be provided with an almost arbitrary number of arms and with holders positioned on one or two different planes. The intermediary parts of the arms may be shaped with many different geometric shapes and the candelabrum may be placed on a table or as a chandelier. As mentioned above the light fixture may be made of many different materials. The important feature is, however, that the arms are maintained so as to be rotatable about a symme-

trical axis and furthermore that they can be retained in predetermined angular positions by means of one or more locking means.

As illustrated in Figures 2 and 5 the holder 5 may be of a length corresponding to 5-11, preferably 8-10, especially substantially 9 times the diameter of the annular portions 9, especially the uppermost portion 9.

The term "candlelight arm" refers both to artificial (electric) light and to candlelight.

Claims.

1. A light fixture such as a candelabrum preferably for candlelight (4) and comprising a plurality of candlelight arms (2) interconnected about a vertical symmetrical axis and preferably made of metal wire, characterised in that the candlelight arms (2) are pivotably secured to one another about the vertical symmetrical axis (3) by means of a separate, rigid and preferably elongated holder (5), and that when the light fixture is used the candlelight arms (2) are lockable in predetermined angular positions by means of at least one removable annular locking means (6, 7), whereas when said locking means (6, 7) has been removed the candlelight arms (2) can turn freely about the symmetrical axis (3) and thus be folded towards one another in such a manner that the light fixture (2) is flattened.

2. A light fixture as claimed in claim 1, characterised in that the locking means (6, 7) is positioned on a plane perpendicular to the symmetrical axis (3).

3. A light fixture as claimed in claim 1 or 2, whereby each candlelight arm (2) comprises a first and a second end part (11, 12) as well as a plurality of intermediary parts (13, 16, 17, 18, 19), and whereby the first end part comprises a substantially vertical, preferably slightly conical, and optionally helically formed light holder (21), characterised in that one of the intermediary parts (13) of each candlelight arm (2) is preferably

elongated and extends substantially parallel to the vertical symmetrical axis (3), that each candlelight arm (2) comprises one or more bulges (30, 33) situated between two neighbouring intermediary parts (17, 18), said bulges (30, 33) engaging the
5 annular locking means (6, 7), and that all the candlelight holders (21, 22) are situated on at least one plane perpendicular to the symmetrical axis (3) (Fig. 2).

10 4. A light fixture as claimed in one or more of the preceding claims 1 to 3, characterised in that the locking means (6) is formed by a plurality of curved portions (31) lockingly engaging the bulge (30, 33) of a candlelight arm (2) at their transi-
15 tions (32), and that the number of transitions (32) at least corresponds to the number of candlelight arms (2).

5. A light fixture as claimed in one or more of the preceding claims 1 to 4, characterised in that
20 the holder (5) comprises a rectilinear intermediary portion (8) and an annular portion (9) shaped at each end of the intermediary portion and gripping about the elongated intermediary parts (13) of all the candlelight arms (2), the rectilinear interme-
25 diary portion (8) of the holder being of almost the same extent along the symmetrical axis (3) as the elongated intermediary parts (13) of the candlelight arms (2).

6. A light fixture as claimed in one or more of
30 the preceding claims 1 to 4, characterised in that the holder (5) is a tube.

7. A light fixture as claimed in one or more of the preceding claims 1 to 6, characterised in that the second end part (12) of each candlelight arm (2) is formed as a hook means (40) and engages an associated locking part (41) on a second annular locking means (7) serving as foot for the light fixture, said second annular locking means (7) being of such a great diameter that the light fixture stands reliably firmly on a supporting surface, and whereby the number of associated locking parts (41) at least corresponds to the number of candlelight arms (2) (Fig. 8).

8. A light fixture as claimed in one or more of the preceding claims 1 to 6, characterised in that the second end part (12) of each candlelight arm (2) comprises a candlelight holder (22) too, and that each candlelight arm (2) comprises two bulges (30, 33).

9. A light fixture as claimed in one or more of the preceding claims 1 to 6 and 8, characterised in that it applies to all the candlelight arms (2) that the candlelight holder (21) of the first end part (11) is situated on the same horizontal plane as the candlelight holder (22) of the second end part (12), and that all the bulges (30) of the candlelight arms (2) engage the same annular locking means (6).

10. A light fixture as claimed in one or more of the preceding claims 1 to 6 and 8, characterised in that it applies to all the candlelight arms (2) that the candlelight holder (21) of the first end

part (11) is situated on a different horizontal plane (C) compared to the plane (B) on which the candlelight holder (22) of the second end part (12) is positioned, and that the two bulges (30, 5 33) of each candlelight arm (2) engages their respective annular locking means (6).

11. A light fixture as claimed in one or more of the preceding claims 1 to 6 and 8 to 10 and especially suited as a chandelier, characterised in 10 that that at the uppermost annular portion (9) the holder (5) is upwardly extended and ends in a ring or hook (10) for the suspension of the chandelier (1) (Fig. 6).

12. A light fixture as claimed in one or more of 15 the preceding claims 1 to 6 and 8 to 10, characterised in that at the lowermost annular portion (9) the holder is downwardly extended and ends in a ring or a hook (14) engaging a supporting member such as for instance an iron ball (15) with a foot, 20 whereby the candelabrum (1) for instance can be situated on a table with the foot resting on the tabletop (Fig. 7).

13. A light fixture as claimed in one or more of the preceding claims 1 to 12, characterised in 25 that the vertical intermediary portion (8) of the holder (5) is of almost the same extent along the symmetrical axis (3) as the elongated intermediary parts (13) of the candlelight arms (2) and is of a length corresponding to 5-11, preferably 8-10, 30 especially substantially 9 times the diameter of the annular portions (9), preferably the uppermost

annular portion.

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Fig.1

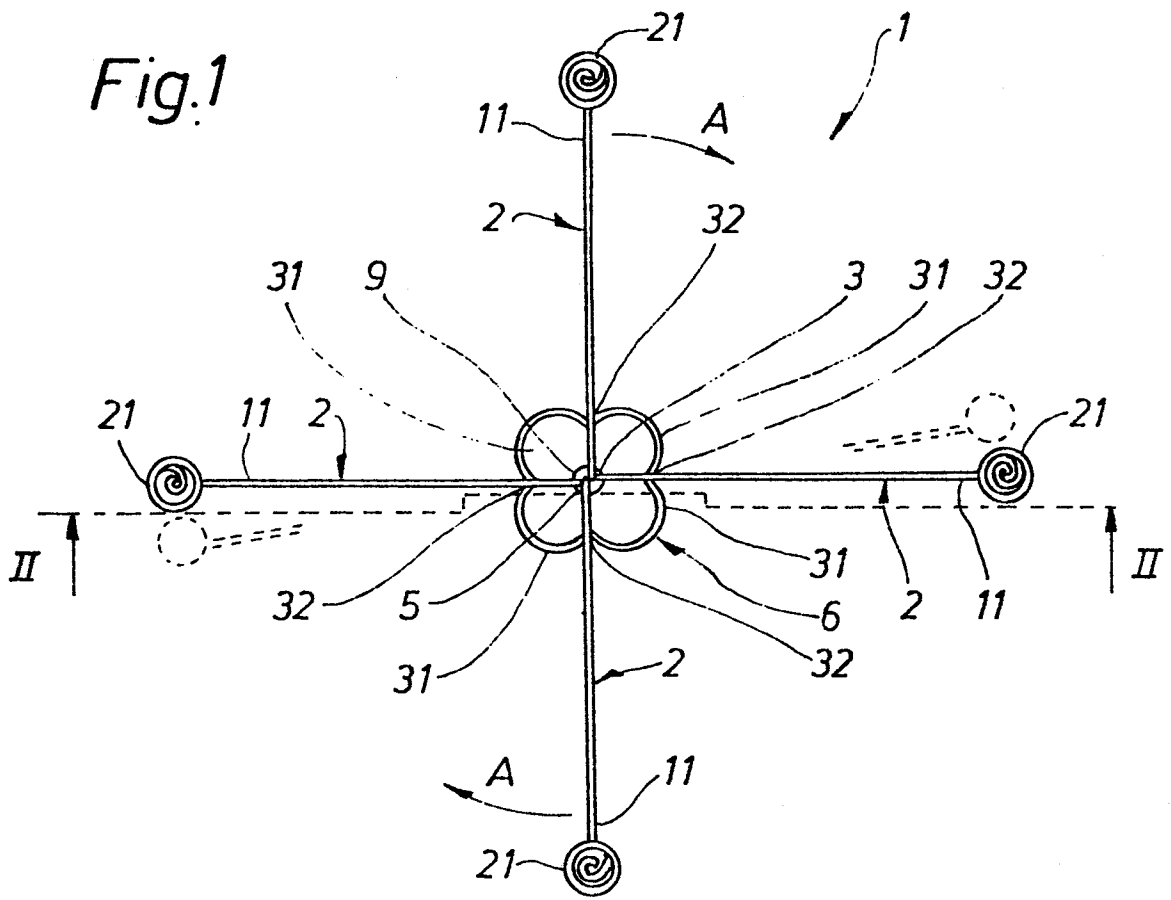
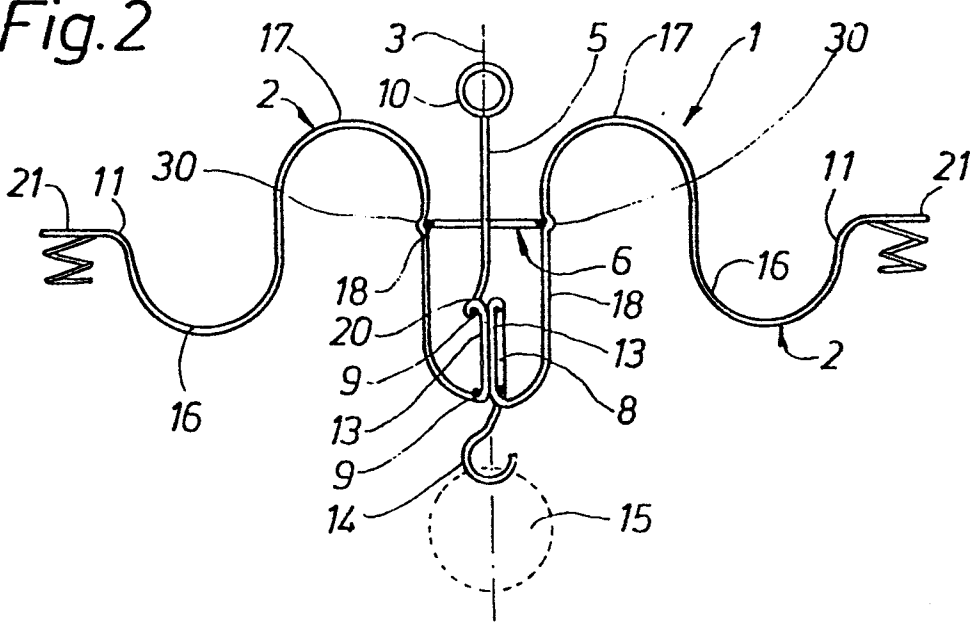


Fig.2



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Fig. 6

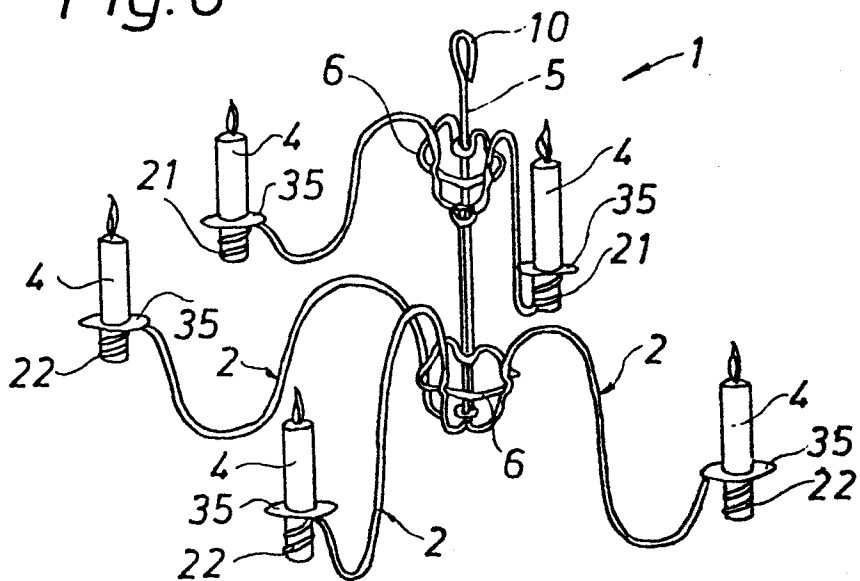
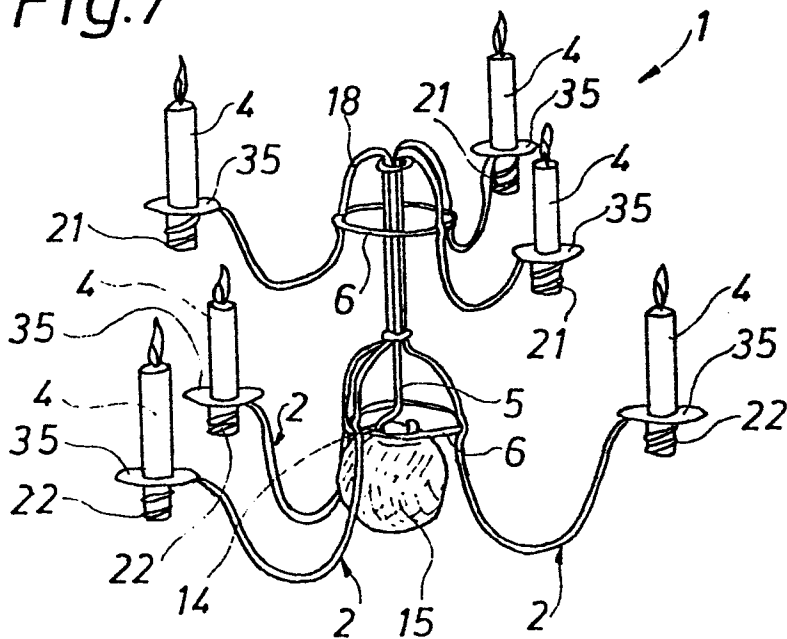


Fig. 7



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Fig. 8

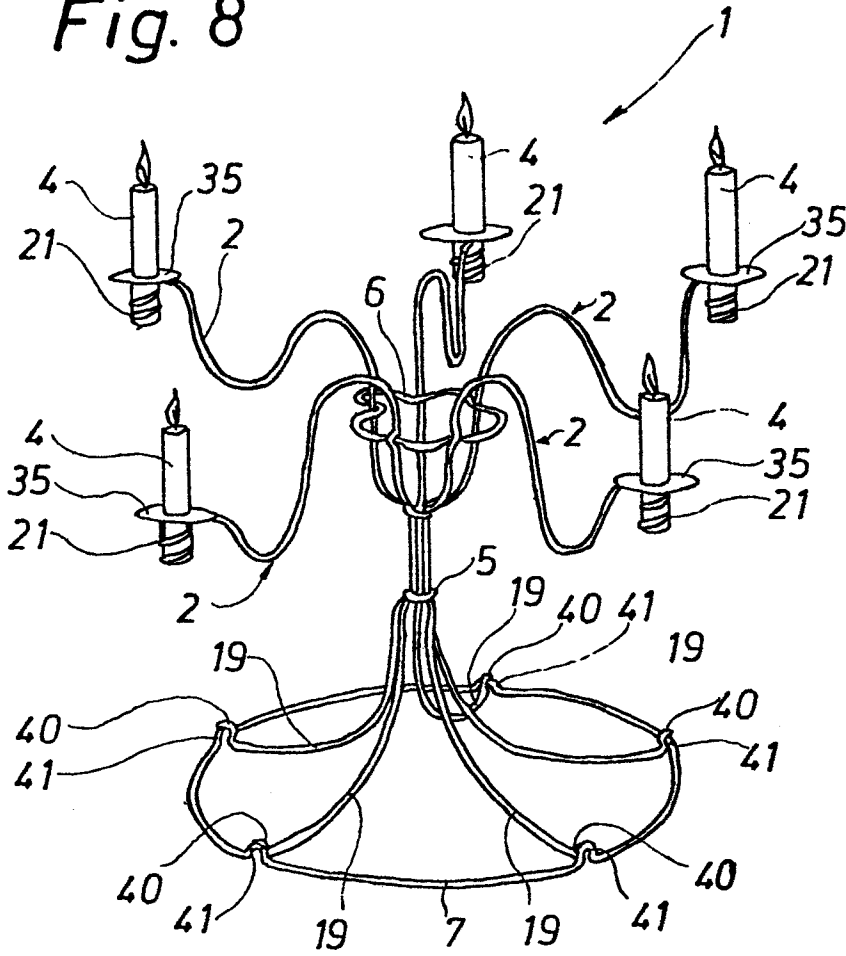


Fig. 9

