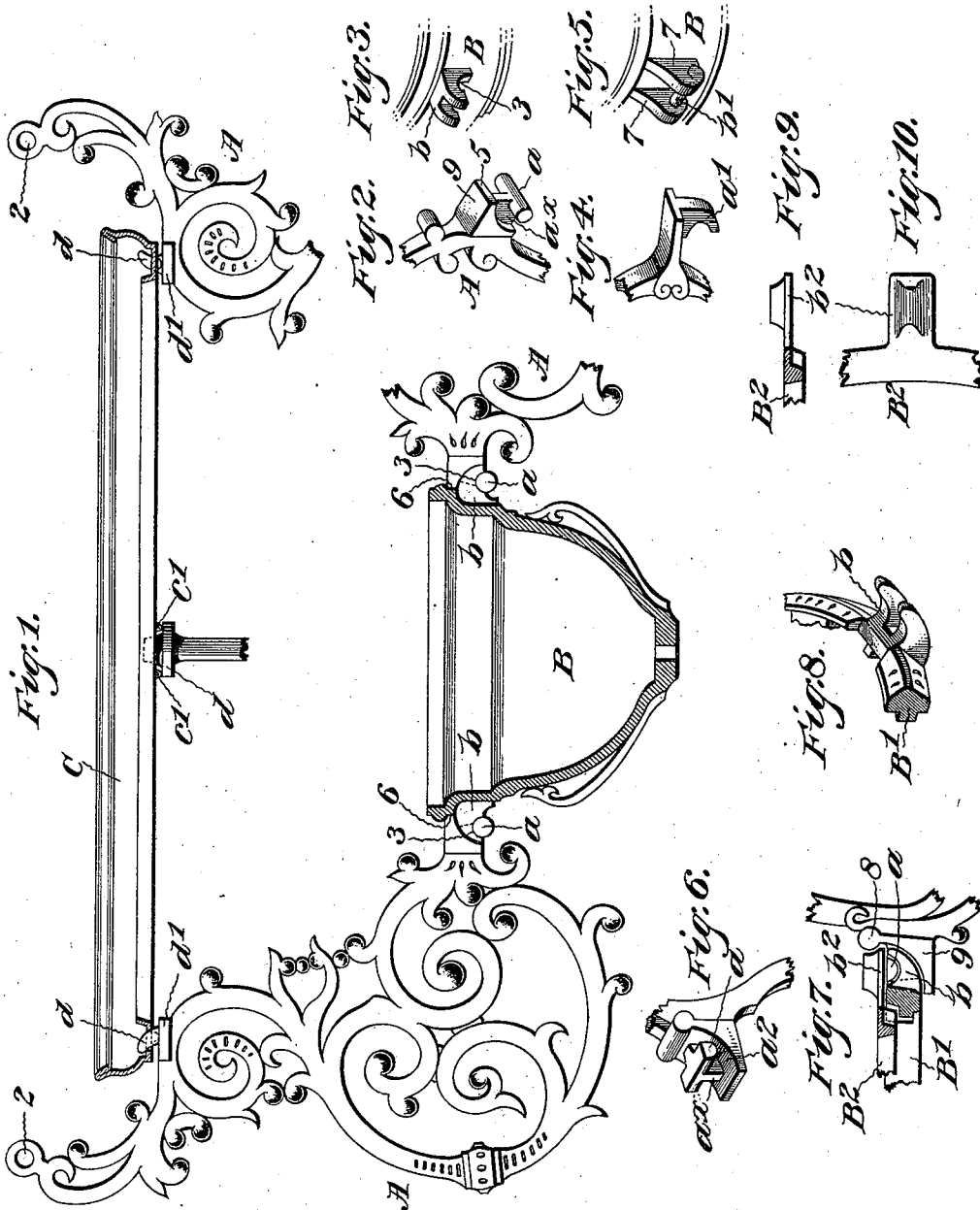


(No Model.)

A. ZEMPLINER.  
SUSPENDED LAMP.

No. 574,512.

Patented Jan. 5, 1897.



Witnesses:

C. S. Ober,  
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# UNITED STATES PATENT OFFICE.

ALFRED ZEMPLINER, OF VIENNA, AUSTRIA-HUNGARY.

## SUSPENDED LAMP.

SPECIFICATION forming part of Letters Patent No. 574,512, dated January 5, 1897.

Application filed July 12, 1894. Serial No. 517,360. (No model.) Patented in Austria March 7, 1894, No. 44/309, and in Hungary March 7, 1894, No. 104.

*To all whom it may concern:*

Be it known that I, ALFRED ZEMPLINER, general manager of the firm Brunner & Co., lamp and hardware manufacturer of Vienna, a subject of the Emperor of Austria-Hungary, residing at Vienna, in the province of Lower Austria, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Suspended Lamps, (for which I have obtained Letters Patent in Austria, No. 44/309, dated March 7, 1894, and in Hungary, No. 104, dated March 7, 1894;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to suspension-lamps and counterweight drop-lights, and has for its object to simplify the construction and facilitate the assembling or dismembering of the elements that support the lamp without impairing their strength or rigidity, as will now be fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional elevation of so much of a lamp-support as will be necessary to illustrate my invention; and Figs. 2 to 10 are detail views thereof, illustrating the means for detachably connecting the several parts, as well as modifications in the construction of such means.

Similar letters and numerals of reference indicate like parts wherever such may occur in the figures of drawings above described.

The devices for supporting the lamp consist, as shown, of a lamp socket or holder B and supporting-arms A, provided with eyes 2 for the suspension-chains, and of a shade-ring C. One of the essential features of my invention consists in detachably connecting said parts in such manner as to avoid the use of rivets, screws, or screw bolts and nuts, or similar fastening devices without impairing either the strength of the parts or their rigidity when assembled. This I accomplish by means of hinge joints or connections of such a con-

struction that the elements which constitute the joint can be readily connected together and as readily disconnected, while their construction may be variously modified without departing from the nature of my invention.

Referring now to Figs. 1 to 3, inclusive, it will be seen that the lamp socket or holder B is provided with a pair of downwardly-curved hook-shaped hinge-knuckles *b* for each supporting-arm A, while the latter are each provided with a hinge-pintle *a*, that is substantially T-shaped, the pintle *a* seating in the concave recess 3 of the hook-shaped hinge-knuckle, while the web *a*<sup>x</sup> of the pintle fits snugly between the two hooks of the knuckle. In order to prevent rotary motion of the knuckle *b* on the pintle *a* in a direction toward the supporting-arm A, the web *a*<sup>x</sup> of the pintle is formed on the under side of a bracket 9, the sides of which are of the same curvature as the hooks of the knuckle, while the outer face 5 of the upper portion of said bracket has bearing on a corresponding seat 6, formed on the lamp-holder B. It is obvious that when the said holder B is connected with the supporting-arms A and that when said arms are suspended from the supporting-chains a perfectly rigid joint is formed between the arms and the holder, and that the security of the joint between said parts will increase in proportion to the weight of the lamp-holder B.

In Figs. 4 and 5 I have shown the above arrangement reversed, the hinge-knuckle being formed on the supporting-arm A on the under side of an abutment, a single hooked knuckle *a'* being used, while the hinge-pintle *b'* is secured to or formed on bracket-arms 7 on the holder.

In Figs. 6, 7, and 8 the position of the hook-knuckle *b*, formed on ring-holder B', is reversed relatively to its position shown in Figs. 1 to 3, the hinge-pintle *a* on the supporting-arm A being correspondingly reversed, and in order to prevent said arm from turning toward the ring-holder I employ a locking-ring B<sup>2</sup>, (see also Figs. 9 and 10,) that has radial locking-lugs *b*<sup>2</sup>, that abut against a head 8, formed on the upper edge of the hinge-pintle bracket 9, as more clearly shown

in Fig. 7. This construction is more particularly designed for use with lamps devoid of a shade or globe, but when the latter is used I employ a shade-ring C, Fig. 1, that is also detachably connected with the supporting-arms and serves as a means of interconnecting said arms at a point above the lamp-holder B. To this end the arms are provided with a hook-shaped lug *d*, projecting vertically from a flat base *d'*, while the ring C is provided with slots for the reception of said lugs, and on its under side with a stud or teat *c'* on opposite sides of said slot that have bearing on the flat base or table when the lugs are in engagement with the ring, and serve to tighten the connection.

In order to connect the ring C to the supporting-arms A, it is necessary to bend the said arms inwardly or toward the ring, the arms being more or less elastic, so that the hooked lugs may enter their respective slots, and when the arms are allowed to spring back to their normal position the studs *c'* limit the movement of the ring toward the flat base *d'*, while the hooks bear upon the inner face of said ring and clamp it tightly in position.

It will be readily seen that by means of the described construction of the devices a perfectly rigid structure is obtained without the use of screws, or bolts and nuts, or rivets and the like, and that there is no possibility of the parts becoming disconnected accidentally in view of the fact that the weight of the lamp and its holder acts to lock the jointed or pivoted portions together. It is obvious that the greater the weight of said lamp and holder the greater will be the rigidity at the points of connection, while the pivotally or hinge jointed parts may be disconnected in a moment's time, preferably by first relieving the holder of all strain or weight, tilting the arms A outwardly to raise the hinge-joint thereof, when the holder B can be readily removed. The same may be said of the ring C, while in the construction shown in Figs. 6 to 10 it is only necessary to revolve the ring B<sup>2</sup> to move the locking-arms *b*<sup>2</sup> from above the hinge-joint, and then turn or tilt the arms A inwardly to disengage the hinge-pintle *a* from the hook-knuckle *b*.

Of course it is not absolutely necessary to interconnect the bracket-arms at a point above their connection with the lamp-holder B, and this is especially the case in counter-weight drop-lights in which the suspension-chains converge to the canopy and are connected with a counter weight, which latter then holds the arms A against outward movement, but I prefer to use an interlocking device to guard against any possible accidental outward displacement of the arms A, and

consequently against all danger of their becoming disconnected from the lamp-holder.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

1. In suspension-lamps, the combination with a lamp-holder, of supporting-arms adapted for connection with a suspension device, a pivotal connection between the arms and the holder, and an abutment adapted to limit the rotation of the arms in an upward direction, for the purpose set forth.

2. In suspension-lamps, the combination with a lamp-holder, of supporting-arms therefor adapted for connection with a suspension device, a separable interlocking pivotal connection between the arms and holders, and means for limiting the rotation of the arms in an upward direction, for the purpose set forth.

3. In suspension-lamps, a lamp-holder, supporting-arms adapted for connection with a suspension device, an interlocking pivotal connection between the arms and the holder, and an abutment adapted to limit the rotation of the arms in an upward direction, in combination with a shade-holder detachably connected with the supporting-arms above the lamp-support, for the purpose set forth.

4. In suspension-lamps, a lamp-holder, supporting-arms adapted for connection with a suspension device, a separable pivotal connection between the arms and holder, and an abutment adapted to limit the rotation of the arms, in an upward direction on their pivots, in combination with a shade-holder and a separable interlocking joint connecting said shade-holder with the supporting-arms, for the purpose set forth.

5. In suspension-lamps, a lamp-holder, more or less elastic supporting-arms adapted for connection with a suspension device, a separable pivotal connection between the arms and the holder, and an abutment adapted to limit the rotation of the arms in an upward direction on their pivots, said arms provided with a hook-shaped lug, as *d*, projecting from a horizontal base *d'*, in combination with a shade-holder provided with slots for the reception of the aforesaid lugs, and on its under side with a stud *c'* on opposite sides of said slots, said studs adapted to bear on the horizontal base *d'* of the lugs *d*, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED ZEMPLINER.

Witnesses:

HARRY BELMONT,  
JOSEF ZEHETM.