No. 797,872. PATENTED AUG. 22, 1905.

W. H. SPENCER.

LAMP FIXTURE.

APPLICATION FILED MAY 23, 1904.

3 SHEETS—SHEET 1.

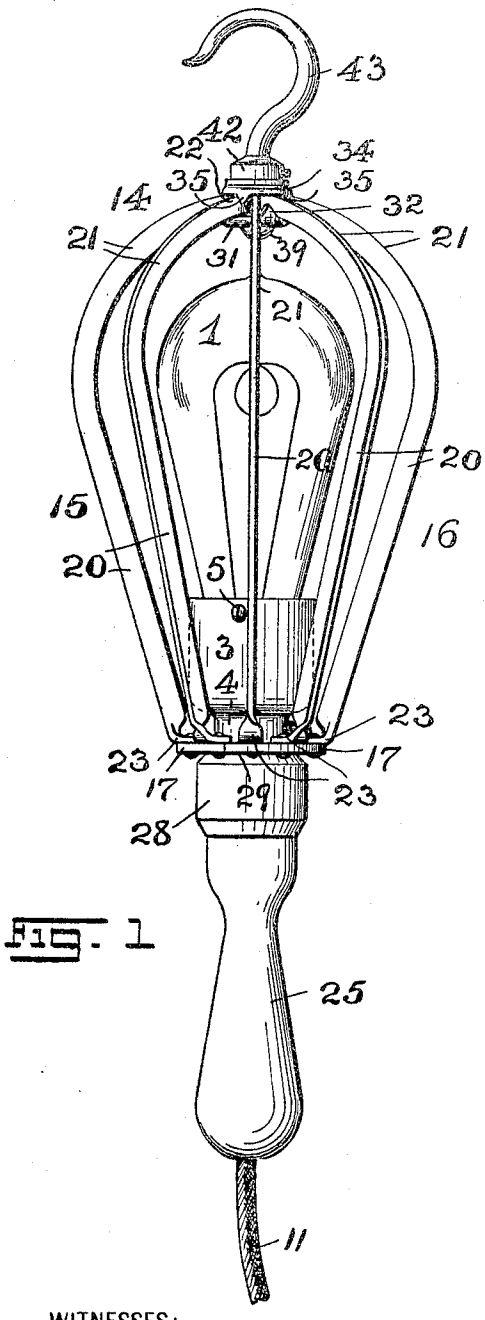


Fig. 1

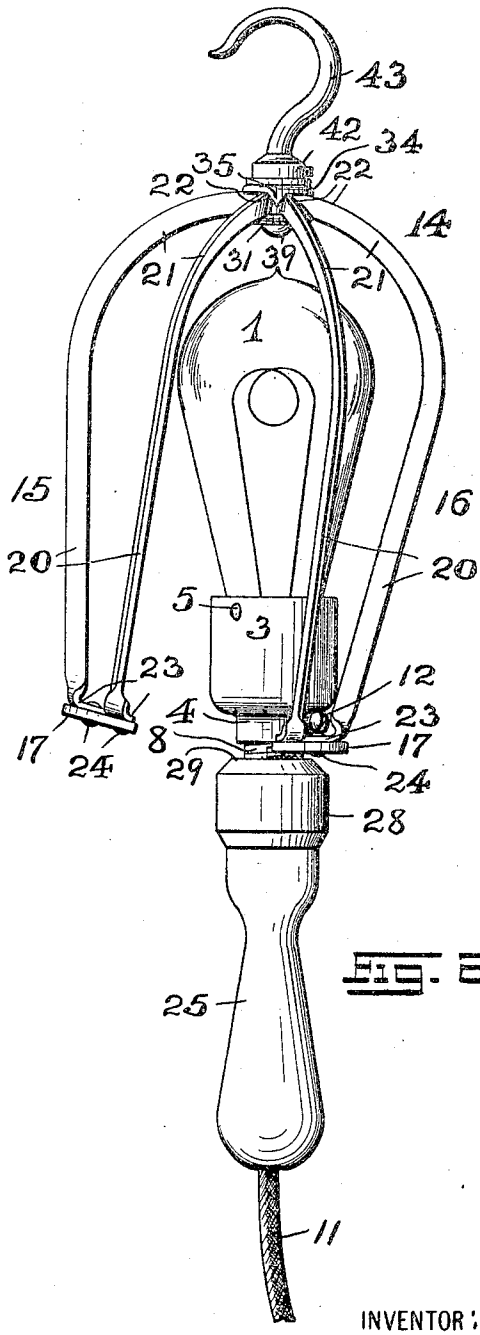


Fig. 2

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INVENTOR:

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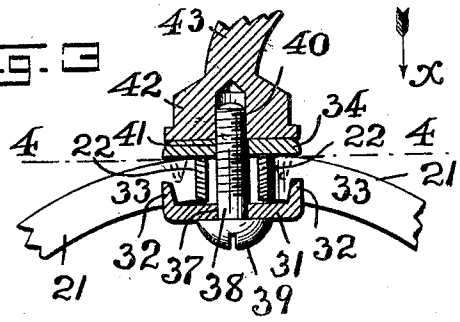
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3 SHEETS—SHEET 2.

Fig. 3



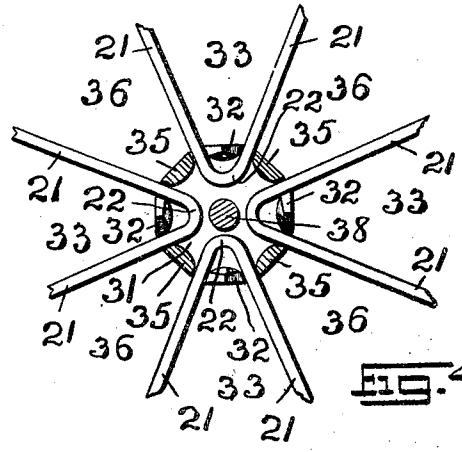


Fig. 4

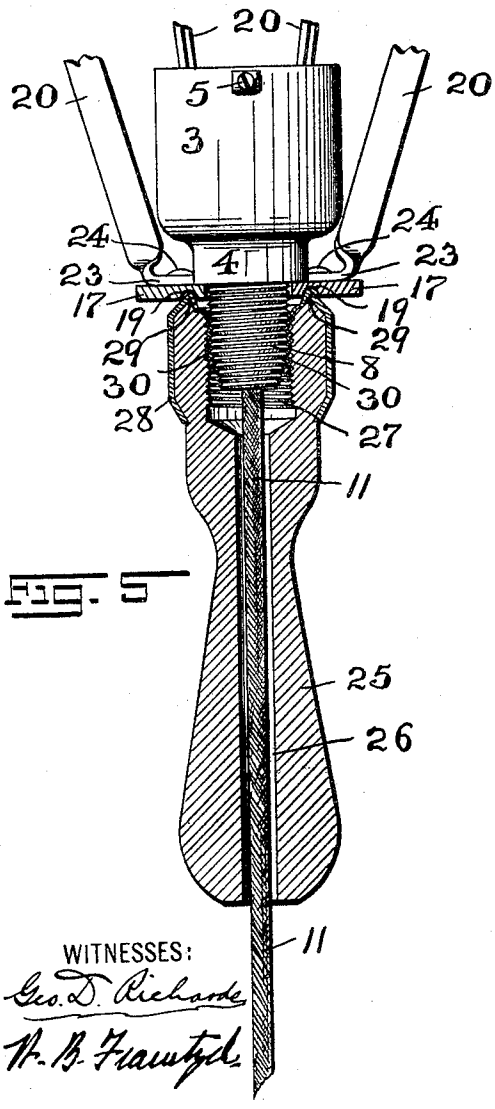


Fig. 5

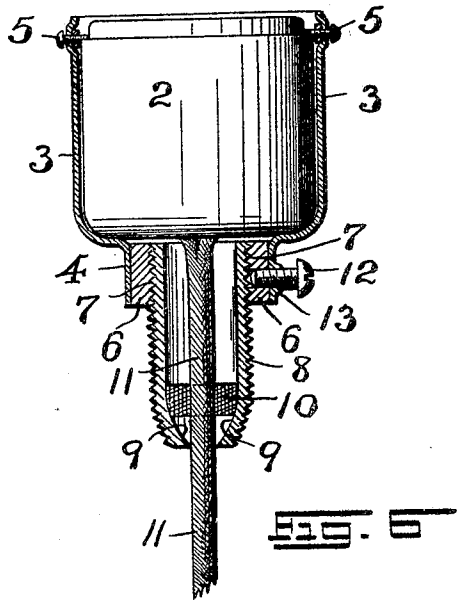


Fig. 6

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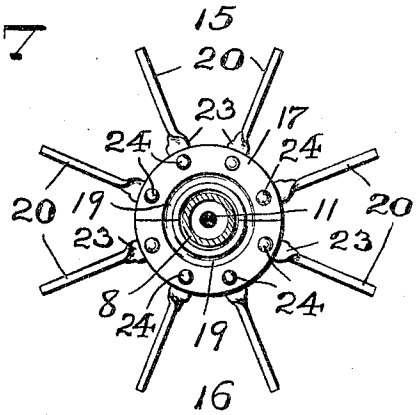
W. H. SPENCER.

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3 SHEETS—SHEET 3.

Fig. 7



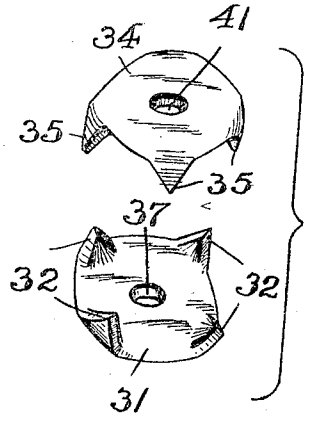


Fig. 8

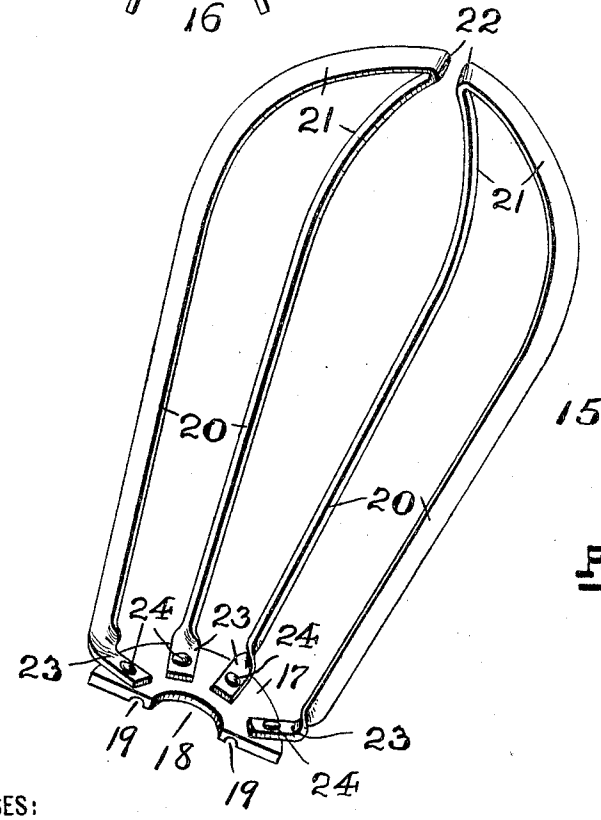


Fig. 9

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UNITED STATES PATENT OFFICE.

WILLIAM H. SPENCER, OF BROOKLYN, NEW YORK, ASSIGNOR TO GEORGE FRINK SPENCER, OF NEWARK, NEW JERSEY.

LAMP-FIXTURE.

No. 797,572. Specification of Letters Patent. Patented Aug. 22, 1905.

Application filed May 23, 1904. Serial No. 209,182.

To all whom it may concern:

Be it known that I, WILLIAM H. SPENCER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Lamp-Fixtures; 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 numerals of reference marked thereon, which form a part of this specification.

This invention has reference generally to improvements in lamp-fixtures; and the invention relates more particularly to a novel lamp-fixture which is adapted more especially for electric lamps and is in the nature of a guard or protector for the lamp bulb or globe, the same comprising in connection with the lamp proper and a handle separably and detachably connected with the lamp-receiving means a cage of separable sections or members which surround and protect the lamp bulb or globe and are capable of being rigidly arranged at their opposite end portions in fixed positions.

My invention has for its principal object to provide a safety guard or protector of the character hereinafter more particularly set forth which is to be used with electric and other lamps and which is especially adapted for use with portable incandescent electric lamps.

A further object of this invention is to provide a cheap and simply-constructed safety-guard for electric and other lamps comprising separable guard or cage sections, a suspension device, and a handle, all provided with suitable means for rigidly connecting the opposite end portions of the various guard or cage sections and providing a fixed guard or cage, in the center of which the lamp bulb or globe is arranged.

Other objects of this invention are the production of a device of the character hereinabove set forth comprising separable guard or cage sections or members which can be easily manipulated for securing them about a lamp bulb or globe and which can be quickly detached from their protecting relation with the bulb or globe.

The invention consists, primarily, in the novel construction of safety guard or protector for electric and other lamps to be hereinafter more fully described; and, furthermore, this invention consists in the arrangements and combinations of the devices and parts, as well as in the details of the construction of the same, all of which will be hereinafter more fully described in the following specification, and then finally embodied in the clauses of the claim.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a front or face view of a portable incandescent elecric lamp and a safety-guard in position, the guard being made according to the principles of my invention. Fig. 2 is a similar view of the parts represented in said Fig. 1, but said view illustrating the detachable and separable arrangement of the guard-sections with the lamp members. Fig. 3 is a detail vertical sectional representation of the upper portion of the guard-sections and a connecting means for operatively connecting the said parts of the guard-sections with a suspension device; and Fig. 4 is a horizontal section of the parts represented in said Fig. 3, said section being taken on line 4 4 in said Fig. 3 looking in the direction of the arrow *x*. Fig. 5 is a front view of a lamp-socket-receiving means or device and a vertical sectional representation of a handle and the lower end portions of the separable guard-sections of the guard affixed in its detachable relation with the said lamp-socket-receiving means. Fig. 6 is a transverse vertical section of the said lamp-socket-receiving means and a screw-threaded nipple employed therewith, said nipple having a reduced end portion for the retention of a holding means connected with the electric cables within the said nipple for removing all possible strain from the more delicate parts within the lamp-socket in said receiving means, said lamp-socket in the view being represented in elevation. Fig. 7 is a bottom view of the lamp-guard with the handle removed and the screw-nipple being represented in horizontal section. Fig. 8 is collective perspective view of a pair of holding disks or plates employed with the upper end portions of the guard sections or members, and Fig. 9 is a similar view of one of the said guard sections or members in its detached position.

Similar characters of reference are em-

ployed in the above-described views to indicate corresponding parts.

Referring now to the said drawings, the reference character 1 indicates the glass bulb or globe of an ordinary incandescent electric lamp, and 2 in Fig. 6 is the usual porcelain socket into which the lamp is screwed. The socket 2 is incased in a metal receiving-cup 3 or other lamp-socket-receiving means which is preferably provided with a reduced neck portion 4 in its bottom and is usually held in place by means of screws 5 in the manner illustrated. Within the bore of the said neck 4 is a ring 6, provided with an internal screw-thread 7 for the reception of a screw-threaded nipple or tube 8. The lower end portion of this nipple or tube 8 is reduced substantially as illustrated, so as to provide the inner curved surface 9, against which may be made to rest a roll of insulating-tape 10 or other holding means arranged upon the electric cables 11 that any force due to the downward pull upon the said cables will be taken up by the said supporting means 10 and the curved surface 9 of the nipple or tube 8 and will be entirely removed from the delicate contact-making parts contained in the porcelain socket, as will be clearly understood. A set-screw 12, arranged in a reinforced portion 13 in the neck 4 of the lamp-socket-receiving means or cup 3 and extending through a screw-hole in the ring 6, so as to have its end brought against a portion of the nipple or tube 8, may also be employed, if desired, for more securely retaining these various parts in their operative positions, as will be clearly evident from an inspection of said Fig. 6.

Coming now to the safety-guard proper, the same is indicated by the reference character 14, and it comprises a number of separable guard or cage sections, the guard represented in the accompanying drawings, as will be seen from an inspection of Figs. 1, 2, and 7, having two guard or cage sections 15 and 16.

Referring now more particularly to Fig. 9 of the drawings, it will be seen that each guard or cage section 15 and 16 comprises a semicircular plate or disk 17, having a semicircular opening or cut-away part 18 and provided in its lower or under surface with a groove or channel 19, preferably made concentric with the marginal edge of the open or cut-away part 18. The cage proper consists of peculiarly-shaped bars 20, which are made with inwardly-curved parts 21 and centrally-disposed bent portions 22, which form the curved connecting members, as illustrated. The lower end portions of the said bars 20 are bent into right-angled foot-pieces 23, which are made with perforations and are secured to the semicircular disk or plate 17 by means of rivets or screws 24. Of course it will be understood that any other means and method of connecting the lower end portions of said bars 20 to the said disks or plates 17 may be employed. When the safety guard or cage is to be arranged about the bulb or globe 1, the two semicircular plates or disks 17 are arranged against the under surface of the neck 4 and the ring 6 with their open or cut-away parts 18 fitted upon opposite sides of the screw nipple or tube 8, as clearly illustrated in Figs. 5 and 7 of the drawings, with the various bars 20 extending in upward directions and surrounding the bulb 1, their bent portions 21 extending above the upper portion of the said bulb and the connecting members 32 being located in close juxtaposition, in the manner illustrated in Figs. 1, 2, and 4 of the drawings. That the said plates or disks 17 are securely held against the lower and under surface of the neck 4 and the ring 6, a handle 25 of wood or other suitable insulating material, usually provided with a duct 26 and a screw-socket 27, through which the cables 11 extend, as shown, is screwed upon the projecting end portion of the screw nipple or tube 8, the upper end of the said handle 25 being provided with a suitably-constructed shell 28 of metal, having an annular projection 29, which is fitted into the annular grooves or channels 19 of the two assembled plates or disks 17 and brought in firm holding engagement therewith, when the handle is tightly screwed home upon the said nipple or tube 8.

From an inspection of Fig. 5 it will be seen that the shell 28 is made with an inwardly-extending tubular part 30, which is also made with screw-threads, so as to be snugly fitted upon the screw-threads of the screw-socket 27 of the handle 25, whereby the said shell is tightly held in place, and the threaded tubular part 30 of the shell 28 prevents the wearing out of the screw-threaded portions with the unscrewing and screwing into position of the handle 25 and its shell 28 against the plates or disks 17. That the upper and closely-located connecting members 22 of the bars 20 of the guard or cage sections or members 15 and 16 may be maintained rigidly in their relative positions (indicated in Figs. 1 and 4 of the drawings) I have arranged against the lower edges of the said connecting members 22 a plate or disk 31, having upwardly-extending holding lugs or projections 32, made to extend into the spaces 33 between the members 22 and the parts 21 of the bars 20, and upon the upper edges of the said connecting members 22 I have placed a second plate or disk 34, having downwardly-extending holding lugs or projections 35, which extend into other spaces 36, formed between the members 22 and the parts 21 of the bars 20. The said plate or disk 31 is made with a central hole 37, into and through which is passed a screw 38, with its head 39 against the lower surface of the said plate or disk 31 and its screw portion 40 extending through a central hole 41 in the upper disk or plate 34

and screwed into the receiving portion of a suitably-shaped nut or other holding device 42, substantially as illustrated in Fig. 3 of the drawings. Thus by tightening up the said nut upon the screw or bolt 38 the plates or disks 31 and 34 will be securely bound against and upon the opposite sides or edges of the connecting members 22 and the portions 21 of the bars 20, with the holding lugs or projections 32 and 35 of the respective disks or plates 31 and 34 in firm holding engagement with the side faces of the respective portions 21, as clearly represented in said Fig. 4, to retain the parts in rigid relation and against any lateral or oscillatory movements as long as the parts are held in their tightly-screwed-up positions. The said nut or holding device 42 is preferably made with a means of suspension, usually in the form of a supporting-hook 43, for suspending the lamp, when not carried about by means of the handle 25, from a nail or other part or device.

When it becomes necessary to remove the safety guard or cage for the replacing of a burned-out lamp with a new lamp or for other purposes, all that is necessary is to slightly unscrew the handle 25, so as to remove the annular projection 29 from within the grooves or channels 19 of the semicircular plates or disks 17, and also slightly unscrew the nut or other fastening device 42 to relieve the pressure from the holding plates or disks 31 and 34, whereby the two guard or cage sections 15 and 16 may be made to oscillate upon the projections or extensions 32 of the disk 31 in the manner indicated in Fig. 2 of the drawings, and the guard or cage 14 can then be removed from its position around the bulb 1, the holding relation maintained between the two disks or plates 31 and 34 and the connecting members 22 of the bars 20 preventing the complete separation of the two guard members or sections 15 and 16. In a like manner the guard or cage sections or members 15 and 16 can then be arranged about another lamp-bulb in the manner previously described and retained in fixed relation about the bulb by tightening the handle 25 and the nut or fastening device 42.

Of course I am aware that changes may be made in the arrangements and combinations of the various devices and their parts, as well as in the details of the construction of the same, without departing from the scope of my present invention. Hence I do not limit my invention to the exact arrangements and combinations of the devices and their parts as described in the foregoing specification and as illustrated in the accompanying drawings, nor do I confine myself to the exact details of the construction of the said parts.

Having thus described my invention, what I claim is—

1. A lamp-guard for electric and other lamps consisting of a cage-like device, comprising a series of separable guard members having upper inwardly-extending curved portions and a centrally-disposed connecting member between each pair of such curved portions, a fastening means with which said centrally-disposed connecting members are pivotally and separably connected, comprising a pair of holding-disks and a tightening-screw and nut, upwardly-extending holding-lugs on one of said disks and downwardly-extending lugs on the other disk, said connecting portions embracing said upwardly-extending lugs, lower segmental disks, a lamp-receiving means provided with a screw-nipple, and a handle, said lower disks being jointly held by said handle and the screw-nipple of the lamp-receiving means, and the lower ends of said guard members being connected with said segmental disks, substantially as and for the purposes set forth.

2. A lamp-guard for electric and other lamps, consisting of a cage-like device, comprising separable guard members adapted to be arranged about the lamp, each guard member comprising upwardly-extending bars having curved portions 21 and connecting members 22, and a fastening means connected with said connecting members 22, comprising a pair of holding-disks and a tightening-screw and nut, upwardly-extending holding-lugs on one of said disks, and downwardly-extending holding-lugs on the other disk, said lugs extending between the curved portions 21 of said bars near the connecting members thereof, substantially as and for the purposes set forth.

3. A lamp-guard for electric and other lamps, consisting of a cage-like device, comprising separable guard members adapted to be arranged about the lamp, each guard member comprising upwardly-extending bars having curved portions 21 and connecting members 22, and right-angled end members, semicircular fastening-plates secured to said right-angled members, and a fastening means connected with said connecting members 22, comprising a pair of holding-disks and a tightening-screw and nut, upwardly-extending holding-lugs on one of said disks, and downwardly-extending holding-lugs on the other disk, said lugs extending between the curved portions 21 of said bars near the connecting members 22 thereof, substantially as and for the purposes set forth.

4. In a lamp-fixture, the combination, with a lamp-socket-receiving means, of a handle connected therewith, and a lamp-guard consisting of a cage-like device comprising separable guard members secured at one end to said receiving means by means of said handle, and fastening means at the other end of said guard members for pivotally and separably connecting the said guard members at such other end, comprising a pair of holding-disks and a tightening-screw and nut, up-

wardly-extending holding-lugs on one of said disks, and downwardly-extending holding-lugs on the other disk, substantially as and for the purposes set forth.

5. In a lamp-fixture, the combination, with a lamp-socket-receiving means, of a tubular screw-nipple connected therewith, a handle screwed upon said nipple, and a lamp-guard consisting of a cage-like device comprising separable guard members secured at one end to said receiving means by means of said handle, and fastening means at the other end of said guard members for pivotally and separably connecting the said guard members at such other end, comprising a pair of holding-disks and a tightening-screw and nut, upwardly-extending holding-lugs on one of said disks, and downwardly-extending holding-lugs on the other disk, substantially as and for the purposes set forth.

6. In a lamp-fixture, the combination, with a lamp-socket-receiving means, of a tubular screw-nipple connected therewith, a handle provided with a screw-socket, a shell upon the end of said handle having a screw-threaded member arranged in said screw-socket for attachment of the handle upon said nipple, and a lamp-guard consisting of a cage-like device comprising separable guard members secured at one end to said receiving means by means of said shell, and fastening means at the other end of said guard members for pivotally and separably connecting the said guard members at such other end, comprising a pair of holding-disks and a tightening-screw and nut, upwardly-extending holding-lugs on one of said disks, and downwardly-extending holding-lugs on the other disk, substantially as and for the purposes set forth.

7. In a lamp-fixture, the combination, with a lamp-socket-receiving means, of a tubular screw-nipple connected therewith, a handle provided with a screw-socket, a shell upon the end of said handle, an annular projection on said shell, and a lamp-guard consisting of a cage-like device comprising separable guard members, semicircular fastening-plates connected with the one end of each guard member, each fastening-plate being provided with a channel for the reception therein of the annular projection of said shell, and fastening means at the other end of said guard members for pivotally and separably connecting said guard members at such other end, substantially as and for the purposes set forth.

8. In a lamp-fixture, the combination, with a lamp-socket-receiving means, of a tubular screw-nipple connected therewith, a handle provided with a screw-socket, a shell upon the end of said handle, an annular projection on said shell, and a lamp-guard consisting of a cage-like device comprising separable guard members, semicircular fastening-plates connected with the one end of each guard member, each fastening-plate being provided with a channel for the reception therein of the annular projection of said shell, and fastening means at the other end of said guard members for pivotally and separably connecting said guard members at such other end, comprising a pair of holding-disks and a tightening-screw and nut, substantially as and for the purposes set set forth.

9. In a lamp-fixture, the combination, with a lamp-socket-receiving means, of a tubular screw-nipple connected therewith, a handle provided with a screw-socket, a shell upon the end of said handle, an annular projection on said shell, and a lamp-guard consisting of a cage-like device comprising separable guard members, semicircular fastening-plates connected with the one end of each guard member, each fastening-plate being provided with a channel for the reception therein of the annular projection of said shell, and fastening means at the other end of said guard members for pivotally and separably connecting said guard members at such other end, comprising a pair of holding-disks and a tightening-screw and nut, upwardly-extending holding-lugs on one of said disks, and downwardly-extending holding-lugs on the other disk, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 20th day of May, 1904.

WILLIAM H. SPENCER.

Witnesses:

FREDK. C. FRAENTZEL,

GEO. FRINK SPENCER.