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W. S. WATERS

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LIGHTING FIXTURE

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2 Sheets-Sheet 1

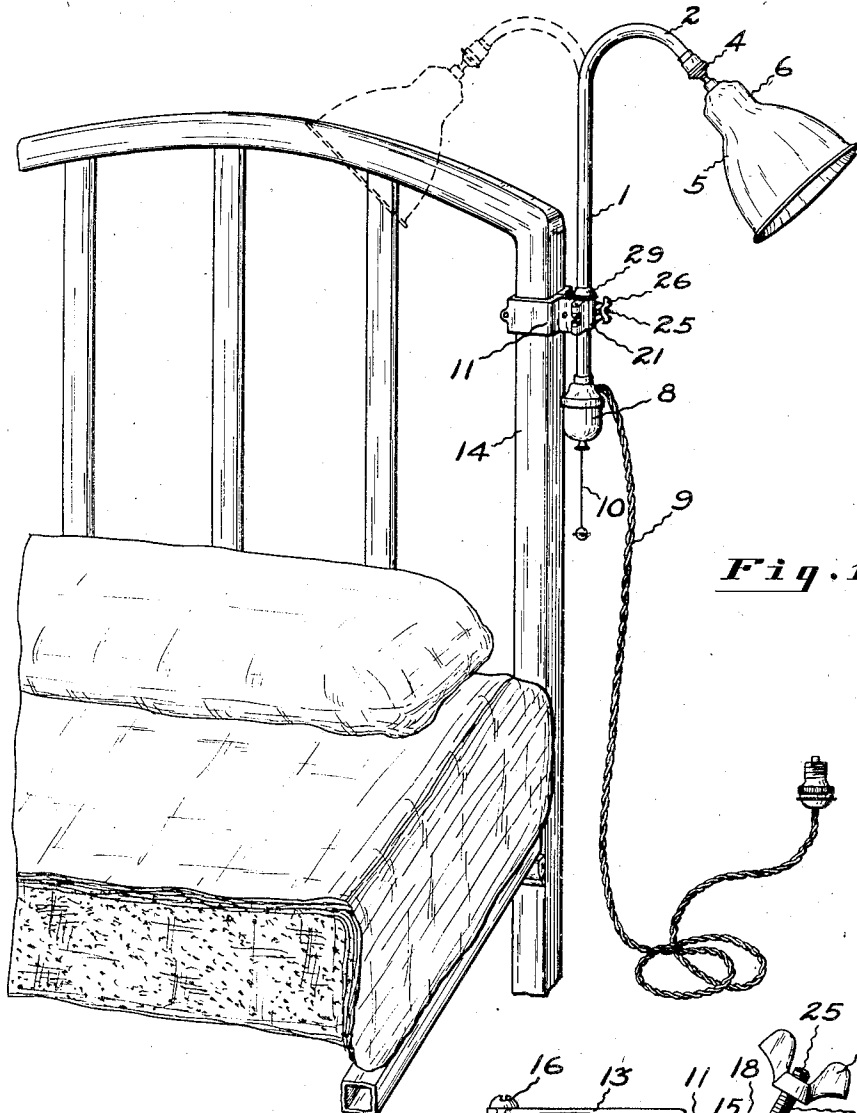


**Fig. 1.**

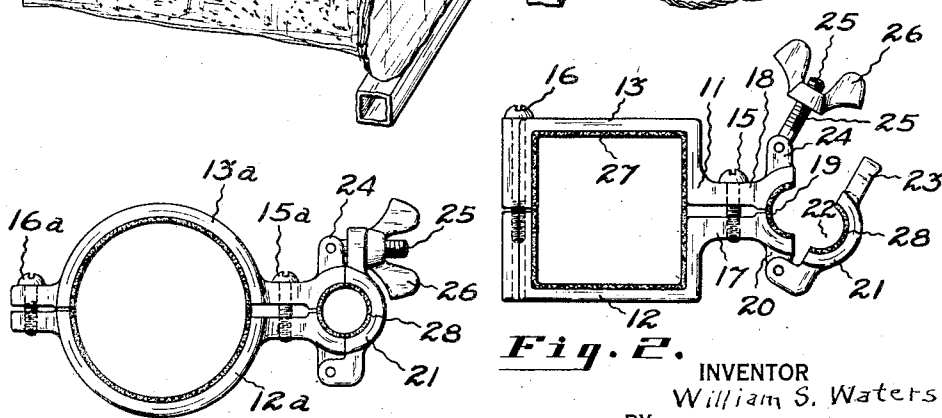


**Fig. 2.**

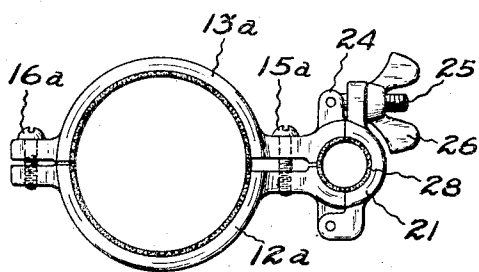


**Fig. 3.**

INVENTOR  
William S. Waters  
BY  
Evans & McCoy  
ATTORNEY

May 26, 1931.

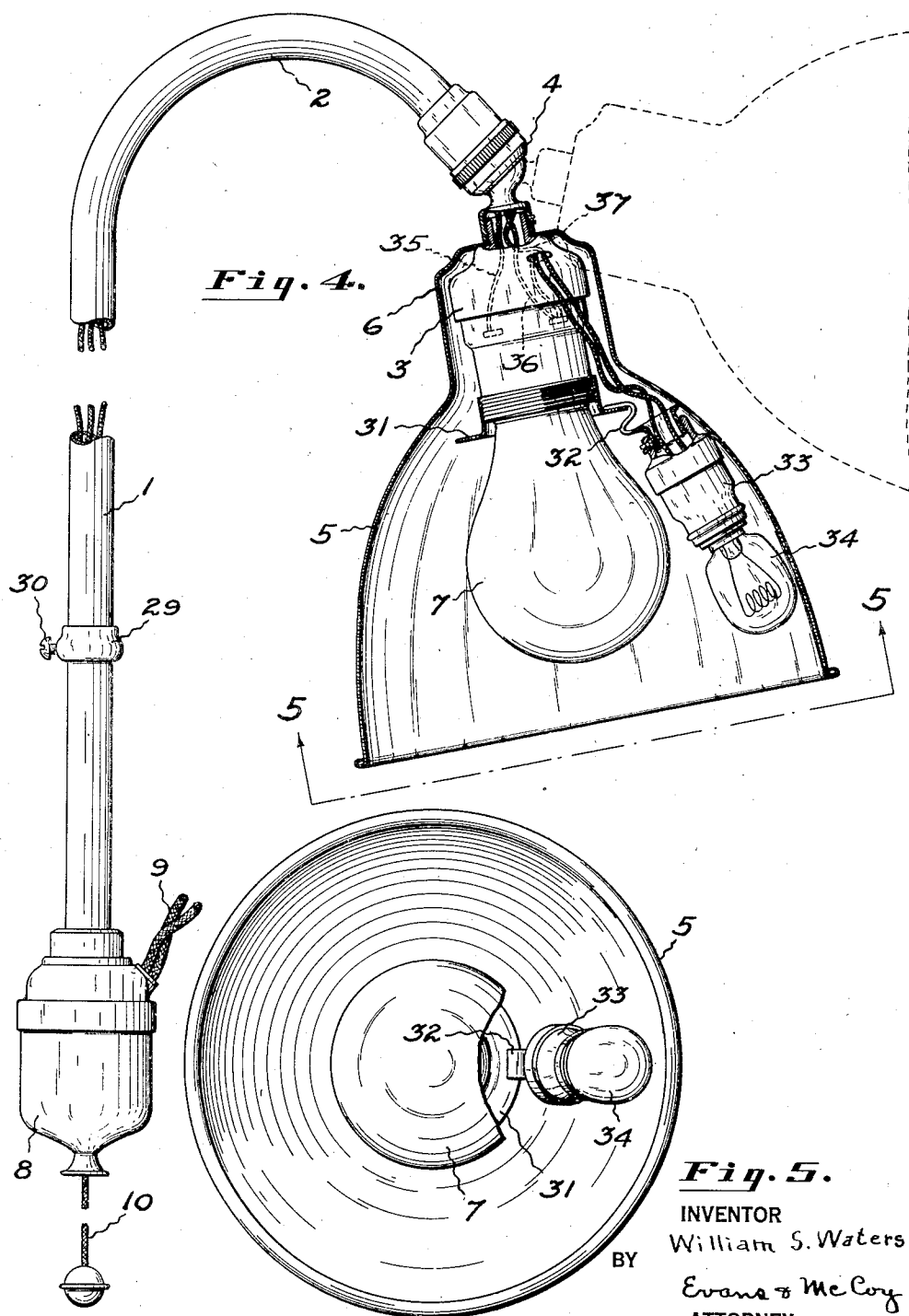
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## UNITED STATES PATENT OFFICE

WILLIAM S. WATERS, OF LAKEWOOD, OHIO

## LIGHTING FIXTURE

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This invention relates to electric lamp fixtures and more particularly to a fixture adapted for attachment to the head of a bed and particularly useful in hospitals and sick rooms to provide a lamp which can be conveniently used for reading and which may be positioned to shield the patient from the direct rays of the lamp.

This invention has for its object to provide a portable extension cord lamp carrying a reflector, together with supporting and attaching means by which the lamp may be secured to the head of a bed in such a manner as not to interfere with adjustments of the spring and mattress and in such a manner that the lamp may be adjusted to different heights convenient for the patient in reading when lying down or sitting on the bed, the lamp being so mounted that it may easily and quickly adjusted to positions such that the light is directed toward or away from the bed, as desired.

A further object is to provide a bed attached fixture in which the lamp controlling switch is so positioned that it may be conveniently reached from the level of the bed.

An additional object is to provide an adjustable mounting for the lamp which permits easy adjustment to any desired position by persons in feeble physical condition such as hospital patients and invalids without necessitating raising their arms very much above the level of the bed.

A further object is to provide a fixture in which the lamp is carried by an elongated supporting member which may be adjustably and releasably held in a clamp attached to a bed post and which, when detached from the clamp, serves as a convenient handle by which the lamp may be held in the hand, the clamping means being so constructed that it may be readily opened to permit removal of the lamp so that a nurse assisting a physician in attending to a patient, may hold the lamp to direct the light as may be desired.

A further object is to provide a clamp which can be quickly and easily attached to a bed post and which can be quickly and

easily adjusted to grip or release the lamp carrying member.

A further object is to provide a clamp which has secure frictional engagement with the bed post and lamp carrying member, but which will not mar either the bed post or the lamp carrying member.

A further object is to provide a lamp having a reflector for directing the light within a limited range and comprising a main bulb and a small auxiliary bulb side by side within the reflector so that either a bright or a dim light may be provided.

With the above and other objects in view, the invention may be said to comprise the lamp fixture as illustrated in the accompanying drawings hereinafter described and particularly set forth in the appended claims, together with such variations and modifications thereof as will be apparent to one skilled in the art to which the invention appertains.

Reference should be had to the accompanying drawings forming a part of the specification in which:

Figure 1 is a perspective view showing the lamp attached to the head of a bed.

Fig. 2 is a top plan view of an attaching clamp designed for attachment to a square bed post.

Fig. 3 is a top plan view of a similar clamp designed for attachment to a round bed post.

Fig. 4 is a side elevation of the lamp and lamp carrying member detached.

Fig. 5 is a bottom plan view of the lamp.

In the fixture of the present invention, the lamp is supported upon an elongated tubular member 1, the major portion of which is straight and the upper end portion 2 of which is curved laterally and downwardly. A lamp socket 3 is attached to the downwardly inclined outer end of the curved portion 2 by means of a ball and socket connection 4 which permits universal adjustment of the lamp socket. An opaque reflector 5 has a restricted upper end portion 6 supporting the reflector on the lamp socket 3, the body portion of the reflector flaring downwardly and being of a length to pro-

ject below the lower end of a lamp bulb 7 in the socket 3.

In order to direct the rays of the lamp within a limited range, the interior surface of the reflector is preferably of a substantially parabolic form. At the lower end thereof, the tubular lamp carrying member 1 has attached thereto a switch casing 8 to which an extension cord 9 extends, the casing 8 being provided with a suitable switch which is operated by a depending pull cord 10.

The elongated straight portion of the tubular member 1 may be adjustably mounted in upright position on the head of a bed by means of a suitable clamp 11, the clamp being designed to permit the adjustment of the lamp carrying member 1 endwise in a vertical direction or angularly about its vertical axis. The clamp 11 may be formed for attachment to a square bed post, as shown in Fig. 2, or to a round bed post, as shown in Fig. 3.

As shown in Fig. 2, the clamp comprises two separable sections 12 and 13 formed to embrace a bed post 14, as shown in Fig. 1. The sections 12 and 13 have portions on opposite sides of the post adjustably connected by means of screws 15 and 16. In Fig. 3, of the drawings, the clamp is identical with the clamp shown in Fig. 2 except that sections 12a and 13a, held together by the screws 15a and 16a are formed to embrace a round bed post. Sections 12 and 13 have lateral extensions 17 and 18 on one side which are held together by the screws 15 and which are formed at their outer ends to provide a semi-cylindrical recess 19 of a diameter to receive the cylindrical supporting member 1. The extension 17 has a laterally projecting lug 20 at its outer end to which is pivoted a clamping jaw 21 which has a semi-cylindrical recess 22 which lies opposite the recess 19 when the jaw 21 is in clamping position. At the free end thereof, the pivoted jaw 21 is provided with a bolt receiving notch 23. The lateral extension 18 of the section 13 of the clamp has a laterally projecting lug 24 at its outer end to which is pivoted a bolt 25 which is adapted to swing into and out of the notch 23 of the clamping jaw 21, the bolt 25 carrying a wing nut 26 which is adapted to be tightened against the jaw 21 to exert clamping pressure thereon.

In order to insure effective frictional clamping engagement between the clamp 11 and the bed post and between the clamp and lamp carrying member 1, the post receiving recesses of the sections 12 and 13 are provided with a felt lining 27 and the tube receiving recesses 19 and 22 are provided with a felt lining 28. The felt linings insure an effective frictional grip on the bed post and

on the lamp supporting member and at the same time, prevent marring of either.

The tubular lamp supporting member 1 is secured in the clamp by opening the pivoted jaw 21 and inserting the tubular member in the recess 19, swinging the pivoted jaw 21 to closed position and the bolt 25 into the notch 23 thereof, whereupon the nut 26 is tightened to apply the necessary amount of pressure upon the tubular member to hold it in adjusted position. By slightly loosening the nut 26, the lamp supporting member 1 may be moved endwise in the clamp to adjust the lamp to the desired height; or the supporting member may be turned to direct the lamp toward the bed or away from the bed. The tubular member 1 is preferably provided with an adjustable collar 29 which is held in adjusted position on the tubular member by means of a set screw 30. The collar 29 may rest upon the top of the clamp and will serve to hold the tubular member against movement in a downward direction when the clamping nut 26 is loosened. The supporting collar 29 is quite advantageous since it permits the clamping jaw 21 to be held loosely so that the tubular lamp supporting member 1 can be rotated in the clamp to any desired position without loosening the nut 26.

An advantageous feature of the present invention is that the mounting thereof on a bed does not in any way interfere with the adjustment of the springs and mattress, since when the lamp is swung outwardly, no part of the fixture projects over the mattress and springs.

The elongated straight lamp supporting member 1 permits the lamp to have a considerable range of vertical adjustment so that the lamp may be quickly and easily positioned at the height most convenient for a person reading in bed, sitting up or lying down, the laterally curved upper end portion of the supporting member bringing the lamp directly over the bed when the lamp is swung inwardly and the ball and socket joint 4 permitting the reflector to be adjusted to the most convenient angle. The pull cord 10 operating the lamp switch being located at the lower end of the lamp supporting member 1, is close to the edge of the bed and near the level of the mattress so it is very conveniently reached by the person lying in bed. The switch casing at the lower end of the tubular member 1 provides a convenient hand grip by which the person lying in the bed may turn the lamp to the desired angle of adjustment.

Another advantageous feature of the present invention is that the lamp may be readily used as a portable lamp, which may be carried to any part of the room and which may be held in any desired position over the bed to furnish light for

examination of a patient or for other purposes, the lamp supporting member 1 being removable laterally from the clamp by loosening the nut 26 and swinging the bolt 5 25 clear of the clamping jaw 21, the rigid member 1 providing a convenient handle or hand grip for carrying the lamp.

It is very desirable in the sick room to provide a faint illumination during the night 10 and at times when the patient is resting and in order to provide such illumination, the fixture of the present invention is provided with an auxiliary bulb of small candle power within the reflector 5, which may be used to 15 provide a light of less intensity than that provided by the main bulb. To provide a support for the auxiliary bulb, the lamp socket 3 is exteriorly threaded adjacent its lower end and secured upon the threaded 20 socket, there is a collar 31 to which is attached a flexible arm 32 which projects downwardly below the lower end of the socket 3 and supports an auxiliary socket 33 in the space between the main bulb 7 and the reflector 5. The socket 33 receives a bulb 34 of a 25 small candle power which lies between the bulb 7 and the reflector 5, both the main bulb 7 and the auxiliary bulb 34 lying entirely within the reflector 5. The socket 33 is preferably so positioned within the reflector 5 that when the lamp is swung away from the bed, the bulb 34 is positioned on the outer side of the bulb 7. In this position of the lamp, the opaque reflector 5 shields 35 the patient on the bed from all direct rays from the lamp and the light is directed downwardly away from the bed. Three wires, 35, 36 and 37 extend from the sockets 3 and 33 through the tubular member 1 to the switch casing 8, the wire 35 being connected to the socket 3, the wire 36 being connected to the socket 33 and the wire 37 being connected to both sockets. The switch controlled by the pull cord 10 is a three-way 45 switch which in one position establishes current through the wires 35 and 36 to light the main bulb. In another position, it establishes current through the wires 36 and 37 to light the auxiliary bulb and in a third 50 position, cuts off the current to both bulbs.

The three positions of the switch are obtained by successive pulls on the cord 10. the first pull lighting the main bulb, the second pull extinguishing the main bulb and 55 lighting the small auxiliary bulb and the third pull extinguishing both bulbs.

It should be noted that in all positions of adjustment of the lamp, the controlling switch remains at the same point close to the 60 level of the mattress at the edge of the bed, where it is in convenient reach of a patient lying in the bed and where it can be reached with a minimum of physical exertion.

Since the reflector is formed to confine 65 the light to a limited range, the small bulb

34 will furnish a dim light reflected away from the bed in such a manner that the patient is in the shadow.

Furthermore, it is to be understood that the particular form of apparatus shown and described, and the particular procedure set 70 forth, are presented for purposes of explanation and illustration and that various modifications of said apparatus and procedure can be made without departing from my invention as defined in the appended claims. 75

What I claim is:

1. In combination with a portable extension cord lamp having a lamp supporting member provided with an elongated straight 80 cylindrical portion and a laterally extending lamp carrying portion at its upper end, and a clamp composed of separable members recessed to receive a bed post between them, releasable fastening means for drawing said 85 members into gripping engagement with the bed post, said clamp having a fixed clamping jaw and a pivoted clamping jaw, said jaws being recessed to receive the straight portion of the lamp supporting member, one 90 of said jaws having a notch at its outer end and the other of said jaws having a bolt pivoted thereto and movable into and out of said notch, said bolt having a nut thereon engageable with the notched jaw to draw the 95 jaws into gripping engagement with the lamp supporting member.

2. In combination with a portable extension cord lamp having a lamp supporting member provided with an elongated straight 100 cylindrical portion and a laterally extending lamp carrying portion at its upper end, and a clamp composed of separable members recessed to receive a bed post between them, releasable fastening means for drawing 105 said members into gripping engagement with the bed post, said clamp having a fixed clamping jaw and a pivoted clamping jaw, said jaws being recessed to receive the straight portion of the lamp supporting 110 member, one of said jaws having a notch at its outer end and the other of said jaws having a bolt pivoted thereto and movable into and out of said notch, said bolt having a nut thereon engageable with the notched 115 jaw to draw the jaws into gripping engagement with the lamp supporting member, the recesses of the separable members and clamping jaws of said clamp each having a pad of cushioning material therein. 120

3. A portable and adjustable bed lamp fixture comprising a tubular lamp supporting member having a straight upright portion and a laterally extending upper end 125 portion, a laterally inclined downwardly facing reflector at the outer end of said laterally extending portion having therein sockets for a main bulb and a bulb of small candle power, means for detachably securing said lamp supporting member in up- 130

right position to a bed post for adjustment bodily in a vertical direction and angularly about a vertical axis, an extension cord leading to the lower end of the lamp supporting member, a switch at the lower end of said lamp supporting member, and wires extending through the tubular supporting member to said sockets.

4. A lighting fixture comprising a reflector having a restricted top portion and a downwardly flaring body portion, a lamp socket in said restricted top portion, a main bulb in said socket, and a socket for a bulb of small candle power in the space between the main bulb and the wall of the reflector.

5. A portable extension cord lamp having a lamp supporting member provided with an elongated straight cylindrical portion and a laterally extending lamp carrying portion at its upper end, a main lamp socket attached to said laterally extending portion, a reflector enclosing said socket, a flexible arm attached to said socket and extending downwardly and laterally from said socket, a small lamp socket carried by the arm at its lower end, and lying between the main bulb and the reflector, said reflector extending below the lower ends of both bulbs.

6. A lighting fixture adapted to be mounted on the post of a bed, comprising a reflector, an incandescent lamp socket mounted concentrically therein, an incandescent lamp of relatively high candlepower adapted to be mounted in said socket, and an auxiliary socket adapted to receive an incandescent lamp of relatively low candlepower mounted within the reflector between the main lamp bulb and the reflector.

7. A lighting fixture comprising a reflector, an incandescent lamp socket supported concentrically therein, a separate supporting bracket attached to the socket and extending to one side thereof, and an auxiliary incandescent lamp socket mounted on said extension and positioned entirely to one side of the main socket, said auxiliary socket being adapted to receive an incandescent lamp of relatively low candle power.

8. A lighting fixture comprising a reflector, an incandescent lamp socket supported concentrically therein, said socket being externally threaded, an internally threaded sleeve screwed upon said socket, a flexible laterally extending arm attached to said sleeve and a supplemental lamp socket carried by said arm.

9. A portable and adjustable bed lamp fixture comprising an elongated tubular lamp supporting member, a laterally inclined downwardly facing reflector having a lamp socket therein carried by said supporting member at its upper end, a switch at the lower end of said tubular member, wires extending from the sockets through the tubular member to said switch, an extension cord leading from said switch, and a clamp having jaws for gripping a bed post and jaws for yieldably gripping the tubular supporting member to support the same in upright position alongside the bed post, said clamp engaging the tubular member above said switch and said tubular member being rotatably and slidably mounted in the clamp for endwise and angular adjustment to vary the height of the lamp and to direct the rays toward or away from the bed.

10. A portable and adjustable bed lamp fixture comprising a tubular lamp supporting member having a straight body portion of cylindrical form and a laterally extending portion at one end, a switch casing adapted to receive an extension cord attached to the opposite end of the tubular member, a lamp socket secured to the outer end of the laterally extending end, the reflector closing said socket, and a clamp having an attaching portion by which it may be secured to a bed post and having releasable means extending laterally from said attaching portion for frictionably and yieldably gripping the straight cylindrical portion of the lamp supporting member above said switch casing to detachably hold the same in upright position alongside the bed post with the switch at its lower end, the straight portion of the lamp supporting member being movable axially and angularly about its axis in said gripping means whereby it may be adjusted bodily in a vertical direction and angularly about the axis of the straight portion in any position of vertical adjustment to position the light at a convenient height or to direct the rays thereof toward or away from the bed.

11. A portable and adjustable bed lamp fixture comprising a tubular lamp supporting member having a straight body portion of cylindrical form and a laterally extending portion at one end, a switch casing adapted to receive an extension cord attached to the opposite end of the tubular member, a lamp socket secured to the outer end of the laterally extending end, a reflector enclosing said socket and a clamp having separable members for frictionally gripping the bed post whereby the clamp may be adjustably secured thereto, clamping jaws for frictionally gripping the straight portion of the lamp supporting member above the switch casing and for yieldably holding the same whereby the lamp supporting member may be shifted vertically or angularly about its axis, one of said jaws being pivoted to the other and movable to a position to permit removal of the lamp supporting member laterally from said clamp, and separate means for applying pressure to the bed post gripping members and clamping jaws.

In testimony whereof I affix my signature.

WILLIAM S. WATERS.