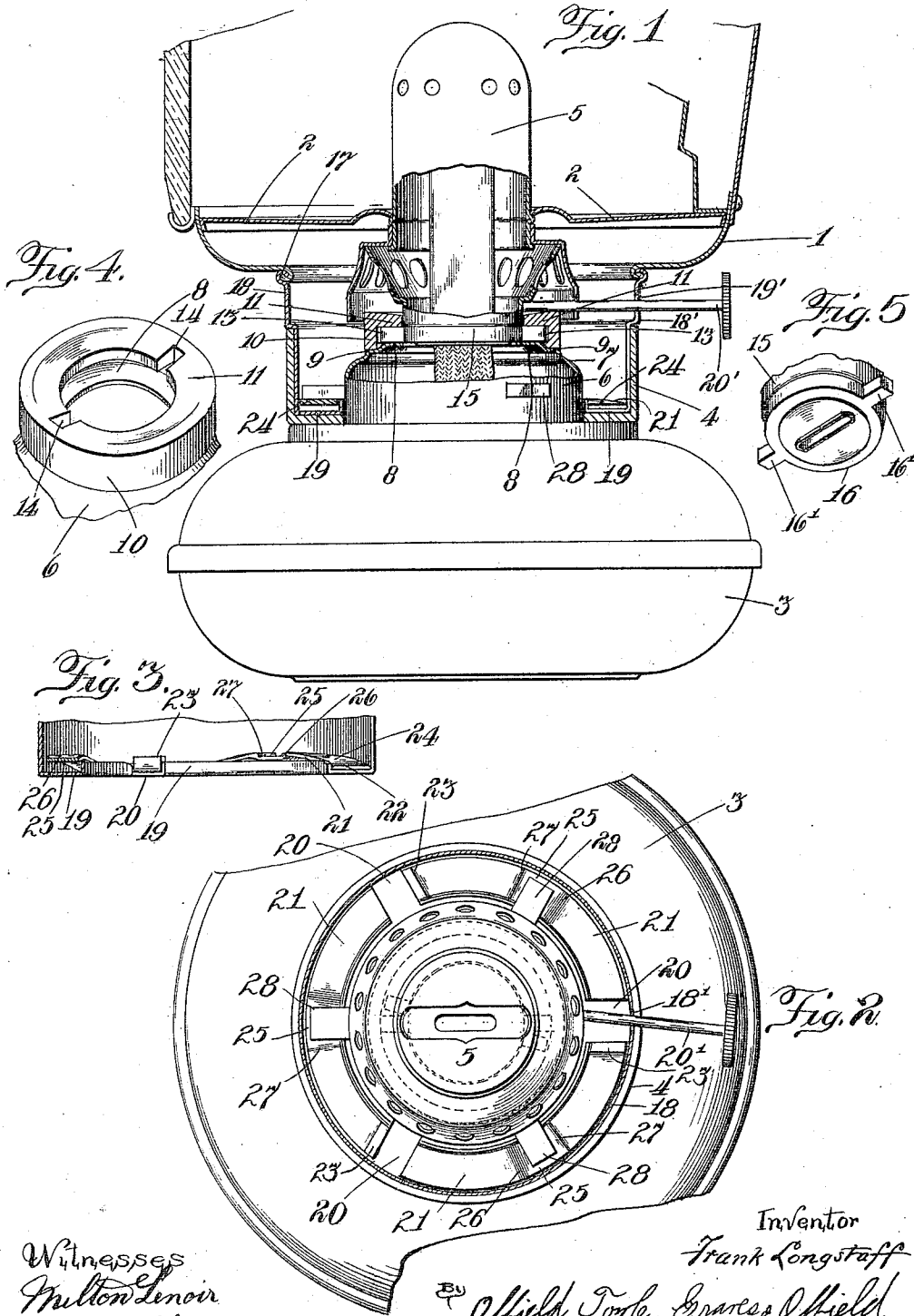


F. LONGSTAFF.
LAMP.
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985,815.

Patented Mar. 7, 1911.



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UNITED STATES PATENT OFFICE.

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LAMP.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK LONGSTAFF, a citizen of the United States, residing at Kenosha, in the county of Kenosha and State of Wisconsin, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

This invention relates to improvements in lamps, and has reference more particularly to a novel construction adapted for use as a side lamp for automobiles and other vehicles.

Among the salient objects of the invention are to provide a construction in which the oil-containing vessel and the hood or lens-box may be readily and positively locked together in such a manner as to prevent rattling and the accumulation of dust, dirt, etc., within the body of the lamp; to provide a construction wherein the waist portion of the lamp body is provided with cooperating lugs and cam-locking segments so arranged that the relative rotation of the oil-pot and hood first automatically drives these parts tightly together and then positively locks them in position; to provide a construction wherein the various parts may be readily dis-assembled for the purpose of cleaning or filling the lamp; to provide in a construction of the character referred to improved means for securing the burner within its holder or socket; to provide a simple and reliable construction of relatively few parts which can be manufactured at very low cost; and, in general, to provide an improved construction of the character referred to.

To these ends the invention consists in the matters hereinafter described and more particularly pointed out in the appended claims.

In the drawings, which represent one practical form in which the invention may be embodied, Figure 1 is a fragmentary vertical sectional view of my improved construction, the oil-pot and part of the wick casing being shown in side elevation. Fig. 2 is a top plan view of Fig. 1, omitting the hood or lens-box, and showing the inner coupling sleeve in cross-section. Fig. 3 is a fragmentary detail view, more particularly illustrating the cam-locking springs and their manner and means of support. Fig. 4 is a perspective view of the upper portion of the burner socket or holder. Fig. 5 is a similar view of the lower end of the

neck of the burner and the locking device carried thereby for detachably connecting the same to the burner socket.

Referring to the drawings, 1 designates the hood or lens-box of the lamp body 2, and 3 the oil-pot. To the upper end of the latter is soldered or otherwise secured an upstanding confining ring or collar 4 concentric with the burner 5 and forming an oil-tight joint with the pot. Upon the pot, within and concentric with the collar 4, is secured the burner socket, comprising a cylindrical member 6 having an inwardly tapered upper portion 7, the upper edge of which is provided with an internal flange 8 surrounded by an annular supporting shoulder 9, upon which latter is soldered or otherwise secured a ring 10 having on its upper edge a pair of segmental internal flanges 11 which, together with the underlying flange 8, form a locking groove or channel 13.

On the lower end of the neck 15 of the burner 5 (Fig. 5) is soldered a ring 16 provided with a pair of opposed lugs or fingers 16' which are adapted to be confined within the locking channel 13 of the burner socket when the burner is in position. In order that these lugs 16' may enter the channel, the flange segments 11 have their opposed ends spaced apart to form entrance slots or notches 14, as more clearly shown in Fig. 4. The burner is locked in position by inserting the lugs 16' through the slots and then turning the burner until the lugs pass out of register with the slots.

Describing now the manner of detachably locking the oil-pot and lamp hood together, to the lower end of the latter is secured, preferably by interlocking flanges as shown at 17, a depending coupling collar 18 which forms the waist of the lamp body, and is adapted to fit closely within the confining ring or collar 4 carried by the oil-pot. The upper and lower portions of this collar are relatively offset, thereby forming a stop-shoulder 18', which seats upon the upper edge of the collar 4; and the coupling collar 18 is also provided with an elongated vertical notch 19', to permit the insertion of the wick stem 20'. On the lower end of the coupling ring 18 is formed a series of internal channel-shaped flange sections 19 spaced apart as shown at 20 to form entrance slots or notches. To one end of each of these flanges

19 is soldered or otherwise secured at one end, as shown at 22, a bow-spring 21 curved edgewise to conform to the shape of the flange-section supporting the same. This spring is so shaped as to present an upper inclined or cam surface 24, a central locking recess 25, and a stop stud 23 at its free end. The entrance end of the recess 25 is beveled as shown at 26, while the opposite end thereof is provided with a vertical stop-shoulder 27 for a purpose hereinafter described. The springs are so mounted that they are normally out of contact with the bases of the flange sections, except at one end where they are secured thereto. Upon the outer side of the lower cylindrical portion 6 of the burner socket are rigidly secured radially extending lugs 28 which are adapted to have locking engagement with the cam springs 21. In order to secure the oil-pot to the hood, the collar 4 is slipped over the coupling sleeve 18 so that the lugs 28 pass through the slots 20. The parts are then turned until the lugs, riding over the cam surfaces 24 of the springs, snap into the locking recesses 25 wherein they are firmly held by the action of the springs. The beveled ends 26 of the recesses 25 permit the lugs to readily enter the latter, while the stops 27 prevent the lugs from passing by the recesses. The studs 23 upon the free ends of the springs serve to prevent the lugs from passing by the entrance and exit slots 20 during the reverse turning movement when the oil-pot is being disconnected.

From the foregoing the manner of coupling and uncoupling the various connected parts, and the facility with which these operations can be performed, will be readily apparent. It will also be observed that the cooperative action between the springs 21 and lugs 28 is such as to tend to draw the hood and oil-pot tightly together and hold them positively against rattling. Modifications of the construction described and shown, in respect to minor details, will readily suggest themselves to those skilled in the art, and hence it is not my intention to limit the invention to the precise structure disclosed, except to the extent clearly indicated in specific claims.

I claim:

1. In a lamp, the combination with an upper body portion provided with a depending coupling sleeve having at its lower end a plurality of internal spaced flange-sections, of a series of cam springs supported by said flange-sections, said springs having locking recesses formed in their upper faces, and a burner socket provided with a plurality of radial lugs adapted to ride over said springs into locking engagement with said recesses.

2. In a lamp, the combination with an upper body portion provided with a depending coupling sleeve having at its lower end a

plurality of internal spaced flange-sections, of a corresponding plurality of cam springs secured at one end to said flange-sections, respectively, but otherwise out of contact therewith, said springs having locking recesses formed in their upper faces, and a burner socket provided with a plurality of radial lugs adapted to enter the spaces between said flange-sections and ride over said springs into locking engagement with the recesses thereof under a relative turning movement between said coupling sleeve and the burner socket.

3. In a lamp, the combination with an upper body portion provided with a depending coupling sleeve having at its lower end a plurality of internal spaced flange-sections, of a corresponding plurality of cam springs secured at one end to one of said flange-sections, respectively, and longitudinally co-extensive therewith, said springs having locking recesses formed in their upper faces and stop-lugs on their free ends, and a burner socket provided with a plurality of radial lugs adapted to enter the spaces between said flange-sections and ride over said springs into locking engagement with the recesses thereof under a relative turning movement between said coupling sleeve and burner socket.

4. In a lamp, the combination with an oil-pot and a superposed confining sleeve mounted thereon, of an upper body portion provided with a depending coupling sleeve adapted to telescope within said confining sleeve, said coupling sleeve having at its lower end a plurality of internal spaced flange-sections, a corresponding plurality of cam springs secured to and above said flange-sections, respectively, said springs having locking recesses formed in their upper faces, and a burner socket provided with a plurality of radial lugs adapted to enter the spaces between said flange-sections and ride over said springs into locking engagement with the recesses thereof under a relative turning movement between said coupling sleeve and burner socket.

5. In a lamp, the combination with separable portions of the lamp structure, of means for detachably connecting the same, comprising a series of cam springs carried by one of said portions and having locking recesses formed in the upper sides thereof, and a corresponding series of lugs carried by the other of said portions adapted to ride over said springs into locking engagement with said recesses, one wall of said recesses being inclined to facilitate entrance of said lugs thereto, and the opposite wall being abrupt to form a stop for said lugs, said recesses and lugs being brought into and out of engagement under a relative turning movement of said separable portions.

6. In a lamp, the combination with sepa-

10 rable portions of the lamp structure, of a
coupling sleeve carried by one of said por-
tions and having at one end a plurality of
integral spaced flange sections, cam mem-
5 bers extending across said flange sections
and carried thereby, said cam members hav-
ing oppositely inclined surfaces, and a series
of radial lugs carried by the other of said
portions and adapted to ride up one incline
10 of the cam members and over on to the other
incline thereof to positively lock said por-
tions together.

15 7. In a lamp, the combination with sepa-
rable portions of the lamp structure, of a
coupling sleeve carried by one of said por-
tions and having at one end a plurality of
spaced flange sections, cam members extend-
ing across the face of said flange sections
and carried thereby, said cam members
20 having a relatively long inclined surface and
a recessed locking portion at the upper end
of said inclined surface, and radially ex-
tending lugs carried by the other of said

portions and adapted to ride over said cam
members into said recesses to positively lock 25
said portions together.

8. In a lamp, the combination with a pair
of separable body portions, of a superposed
confining sleeve member mounted on one of
said portions, a coupling sleeve member 30
mounted on the other of said portions and
adapted to telescope within said confining
sleeve, one of said sleeve members having a
plurality of internal spaced flange sections,
a corresponding plurality of cam springs 35
carried by said flange sections, a plurality of
radial lugs carried by the other of said
sleeve members and adapted to enter the
spaces between said flange sections and ride
over said springs, and means for locking 40
said body portions in their united position.

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