

No. 777,638.

PATENTED DEC. 13, 1904.

R. J. KELLEY.
LANTERN FRAME.
APPLICATION FILED JAN. 8, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

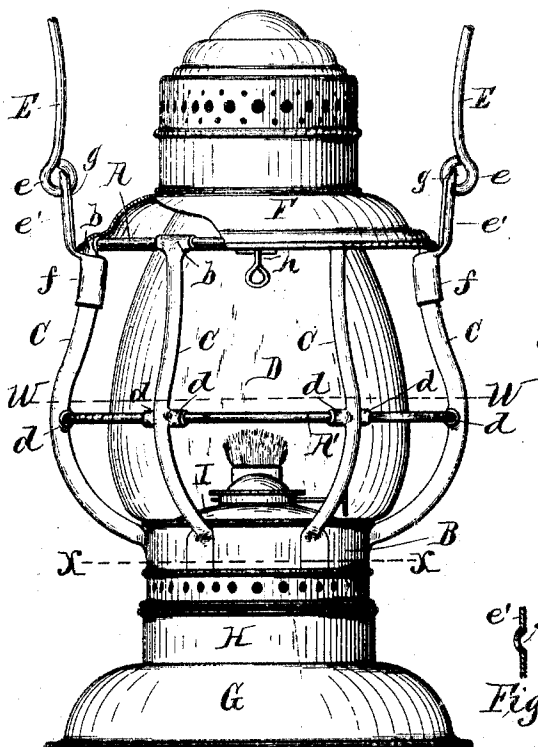


Fig. 1

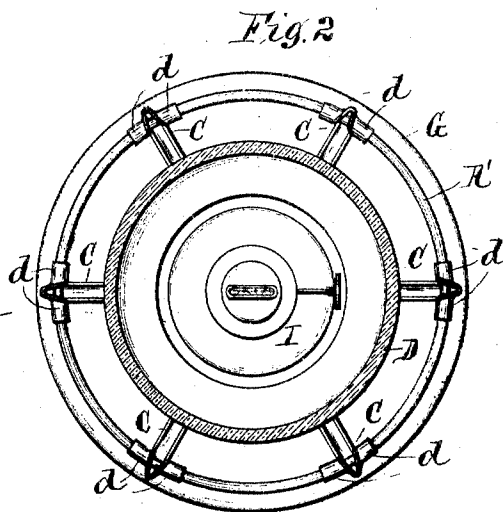


Fig. 2

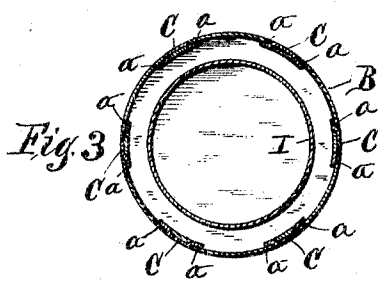


Fig. 3

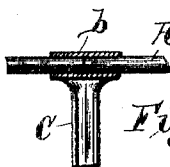


Fig. 5

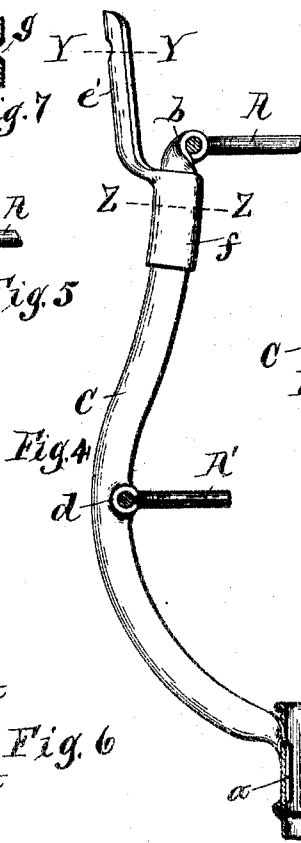


Fig. 4

Fig. 9

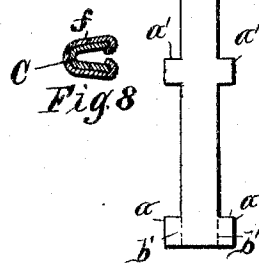


Fig. 8

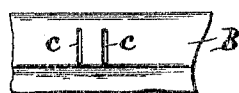


Fig. 10

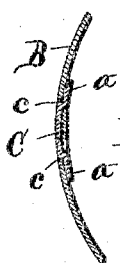


Fig. 6

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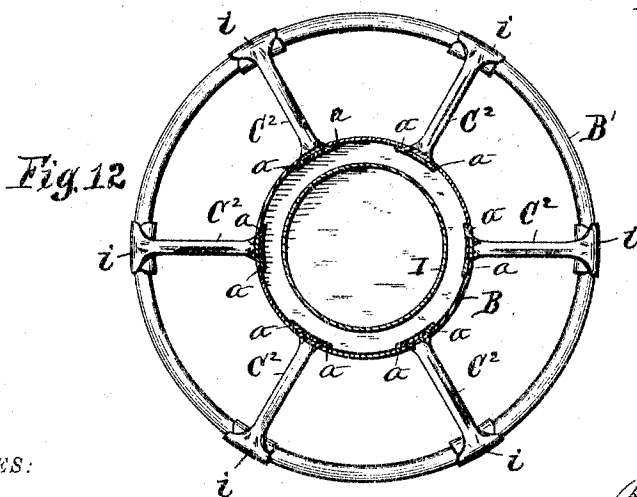
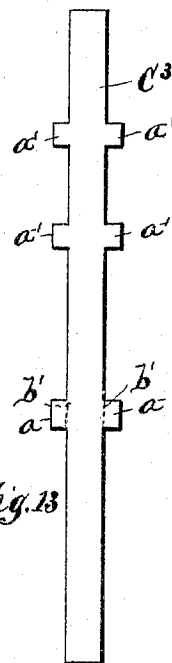
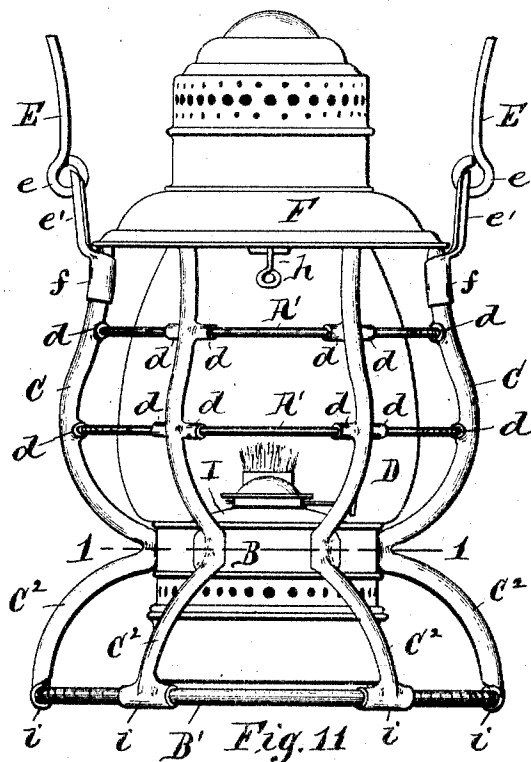
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UNITED STATES PATENT OFFICE.

RICHARD J. KELLEY, OF SYRACUSE, NEW YORK.

LANTERN-FRAME.

SPECIFICATION forming part of Letters Patent No. 777,638, dated December 13, 1904.

Application filed January 8, 1904. Serial No. 188,182. (No model.)

To all whom it may concern:

Be it known that I, RICHARD J. KELLEY, a citizen of the United States, and a resident of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Lantern-Frames, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 This invention relates to lanterns of that class in which the guard-frame is composed of a top horizontally-disposed ring, a lower cylinder, upright stays or bars secured to said ring and cylinder, and a supplemental ring or
15 rings intermediate the top ring and cylinder and secured to said stays.

The main object of the present invention is to produce a lantern-frame in which the component parts can be more readily assembled in the process of constructing the lantern, and thereby cheapen the cost of manufacture.

Another object is to produce a lantern-frame which shall readily permit the removal of any one of the upright stays or bars in case of
25 damage or breakage thereof and the application of a new stay without disturbing the remaining parts of the frame; and, furthermore, the invention has for its object the production of a lantern of the aforesaid class which shall be more simple, rigid, and durable in construction and at the same time present a neater appearance.

To that end the invention consists in the novel arrangement and construction of the component parts of the lantern-frame hereinafter fully described, and set forth in the claims.

In the accompanying drawings, Figure 1 is a side view of a lantern embodying my improvements, a portion of the top being broken away to show the attachment of the stays or bars to the top ring. Figs. 2 and 3 are horizontal sections on lines W W and X X, respectively, in Fig. 1. Fig. 4 is an enlarged detail side view of one of the upright stays, the connecting parts being shown in cross-section. Fig. 5 is an enlarged horizontal sectional view of the upper end portion of one of the stays. Fig. 6 is an enlarged detail sectional view of a portion of the lower cylinder
40 45 50

der and showing more clearly the connection of the stay thereto. Figs. 7 and 8 are transverse sections taken on lines Y Y and Z Z, respectively, in Fig. 4. Fig. 9 is a view of the metallic blank from which the stay is formed. 55 Fig. 10 is a detail side view of a portion of the cylinder, showing the slits for the reception of the ears of the stay. Fig. 11 is a side view of a lantern, illustrating a modification of my invention. Fig. 12 is a horizontal section on line 1 1 in Fig. 11, and Fig. 13 is a view of the sheet-metal blank from which the modified stay is formed. 60

Referring to Sheet 1 of the drawings, A denotes the top ring, and B the lower cylindrical member, of the guard-frame, which parts may be of any suitable and well-known construction. C C are the upright stays or bars, which are of substantially V or U shape in cross-section, as clearly shown in Fig. 8 of the drawings, any suitable number of which may be employed. The stays C are each constructed from a blank C', preferably stamped out of heavy tin and formed on its longitudinal edges with oppositely-disposed enlargements *a a d' d'*. This blank is crimped transversely at its main portion, thereby producing substantially a double stay or bar. The said stays are bowed outward to accommodate the globe D, which is seated upon the cylinder B 80 in the usual and well-known manner. In forming the said stays the upper end of each is bent to form a clip *b* to receive the top ring A and which is subsequently clenched to rigidly embrace the ring in the shape of a sleeve, as clearly shown in Figs. 4 and 5. In striking up the blank C' the enlargements *a a* thereon are bent at right angles from the same and in the same direction on the dotted lines *b' b'*, (indicated in Fig. 9,) and the portion of the blank between said ears is left flat. These enlargements *a a* are inserted into slits *c c*, provided in the cylinder B, and thence bent in opposite directions to clench onto the interior of the cylinder, as clearly shown in Fig. 6. 95 The enlargements *d' d'* of the blank are rolled to produce sleeves *d d*, which receive the guard-ring A', disposed intermediate the top ring and cylinder, and when the stay is placed in proper position the sleeves are fur- 100

ther bent to firmly embrace the ring A'. When the stays are thus fastened to the rings and cylinder, the entire structure is finally dipped into a bath of tin for soldering the joints thereof in the usual and well-known manner. E E represent the usual wire bail or handle, which is pivoted by means of the usual loops *ee* to the ears *e' e'*. These ears are secured to two oppositely-disposed stays C C by means of sleeves *f f*, which are formed integral with the ears and firmly embrace the upper portions of the said stays and are soldered thereto. These sleeves *f f* are formed V-shaped in cross-section and have their longitudinal edge portions clenched onto the corresponding edges of the stay, as clearly shown in Fig. 8 of the drawings. It will be understood that the soldering of these sleeves *f f* may be effected simultaneously with the soldering of the other parts of the frame. Said ears are crimped lengthwise at their central portions to form recesses *g g*, which the inner portions of the aforesaid loops *ee* of the handle enter when the handle is in its raised position to sustain the latter in said position. F represents the lantern-top, which is hinged to the top ring A in any suitable manner and is provided with the usual catch *h*. G denotes the base of the lantern and which is formed with the usual rim H, in which the cylinder B of the frame is secured by any suitable and well-known devices, and I represents the usual oil-pot.

In Sheet 2 of the drawings, illustrating modifications of my invention, the various parts corresponding with like parts shown in Sheet 1 are likewise lettered. Referring to Sheet 2, C² C² denote outwardly and downwardly curved extensions or auxiliary stays which are formed integral with the upright stays C C and are likewise V or U shape in cross-section. Said extensions C² C² project from the rim attachment of the main stays C C and serve as supporting-legs for the lantern and have their lower end portions bent to form sleeves *i i*, which embrace a heavy metallic ring B', which constitutes the base of the lantern. Said sleeves *i i* are similar to the sleeves *bb* at the upper ends of the main stays. The integral stay and extension of the latter-described construction are formed from a sheet-metal blank C³. (Shown in Fig. 13 of the drawings.) This blank is struck up with two pairs of enlargements *a' a'*, whereby additional sleeves *d d* may be produced for the employment of two guard-rings A'. It will be understood that the connections of the extensions C² C² to the base-ring B' are soldered in the manner hereinbefore described. By forming the described stays from a blank which is crimped transversely to produce a V shape in cross-section the said stays are made self-sustaining laterally, and by cutting the blank with enlargements which are contiguous with the edges of the blank prolonged sleeves may

be formed without necessitating slitting into the main portion of the blank, which slitting would weaken the same. It will be observed that by reason of the prolonged sleeves being entirely integral with the stay they are stronger and more rigidly sustained in their position and effectually resist the strain to which the frame is subjected. While I prefer to form the said extensions or auxiliary stays integral with the main stays, at the same time it will be seen that the same may be formed from separate blanks and secured to the cylinder B in the same manner as the main stays are attached.

By constructing the lantern-frame as herein described it will be observed that in assembling the various parts the rings can be arranged with their joints disposed within the clips or sleeves of the stays, as shown in Fig. 5 of the drawings, thus securely uniting the same and at the same time dispensing with the employment of the usual coupling-sleeves, and by so doing greatly improve the appearance of the lantern.

What I claim as my invention is—

1. In a lantern-frame, the upright stays, each of which is self-bracing and constructed from a blank formed intermediate its ends with lateral enlargements projecting from opposite edges of the blank and rolled into form of a sleeve, and the main portions of the blank crimped transversely V-shaped, the stay being arranged with its free edges toward the inner side of the frame, in combination with the guard-ring passing through the sleeve of said stay as set forth.

2. In a lantern-frame, the combination of a top horizontal ring, a lower cylinder provided with vertical slits arranged in pairs, a horizontal guard-ring disposed intermediate the top ring and cylinder, the upright stays, each of which is constructed from a blank and formed at its upper end with a sleeve embracing the top ring, the lower end of the blank being formed with a pair of opposite lateral enlargements which are bent and inserted into a pair of slits of the cylinder and clenched onto the interior of the latter, and formed intermediate its ends with supplemental lateral enlargements projecting from its opposite edges which are rolled into the form of a sleeve rigidly embracing the guard-ring, and the main portion of the blank crimped transversely into V shape, the stay being arranged with its free edges toward the inner side of the frame as set forth and shown.

3. In a lantern-frame, the combination of a horizontal top ring, a lower cylinder formed with slits, a horizontal guard-ring disposed intermediate the top ring and cylinder, a horizontal bottom or base ring, an upright main stay formed from a blank crimped transversely at the center of its width and arranged with its free edges toward the center of the frame, means securing said stay to the top ring and

guard-ring, an auxiliary upright stay integral with the main stay and formed likewise, said stays bent at their junction to enter the aforesaid slits and clenched onto the interior of the cylinder, and means securing the lower end of the auxiliary stay to the bottom or base ring as set forth and shown.

4. In a lantern-frame, the combination of a horizontal top ring, a lower cylinder provided with a pair of vertical slits, a horizontal guard-ring disposed intermediate the top ring and cylinder, a horizontal bottom or base ring, an integrally-formed main stay and auxiliary stay formed from a blank crimped transversely at the center of its width into V shape and arranged with the free edges of the stay toward the inner side of the frame, the main stay formed with a sleeve embracing the top ring and formed on its opposite edges with lateral enlargements rolled into a sleeve embracing the guard-ring, the lower end of the auxiliary stay formed with a sleeve embracing the bottom ring, and the portion at the junction of the two stays formed with enlargements projecting laterally from its opposite edges and bent to enter the respective slits of the cylinder and clenched onto the interior thereof as set forth and shown.

5. In a lantern-frame, the combination with two oppositely-disposed upright stays, each formed from a blank crimped transversely at the center of its width into a V shape, of the handle or bail-ears formed with prolonged sleeves of like shape in cross-section and em-

bracing the upper portions of the respective stays as set forth and shown.

6. In a lantern-frame, the combination with two oppositely-disposed upright stays, of the handle or bail-ears, each formed with a prolonged sleeve embracing the upper portion of a stay and clenched thereto as set forth and shown.

7. In a lantern-frame, the combination with two oppositely-disposed upright stays, each formed from a blank crimped transversely at the center of its width into a V shape, of the handle or bail-ears formed with sleeves embracing the respective stays, said ears being crimped centrally lengthwise to form recesses, the handle formed with loops by which it is pivoted to said ears and which are arranged to enter said recesses to sustain the handle in its erect position as set forth and shown.

8. In a lantern-frame, the combination with two oppositely-disposed upright stays, each formed from a blank crimped transversely at the center of its width into a V shape and arranged with the free edges of the stay toward the inner side of the frame, of the handle or bail-ears, each formed with a sleeve V shape in cross-section and embracing a stay and having its longitudinal edges clenched onto the free edges of the stay as set forth and shown.

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Witnesses:

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