

(No Model.)

F. C. CANNON.
CARRIAGE LAMP.

No. 270,385.

Patented Jan. 9, 1883.

fig. 1

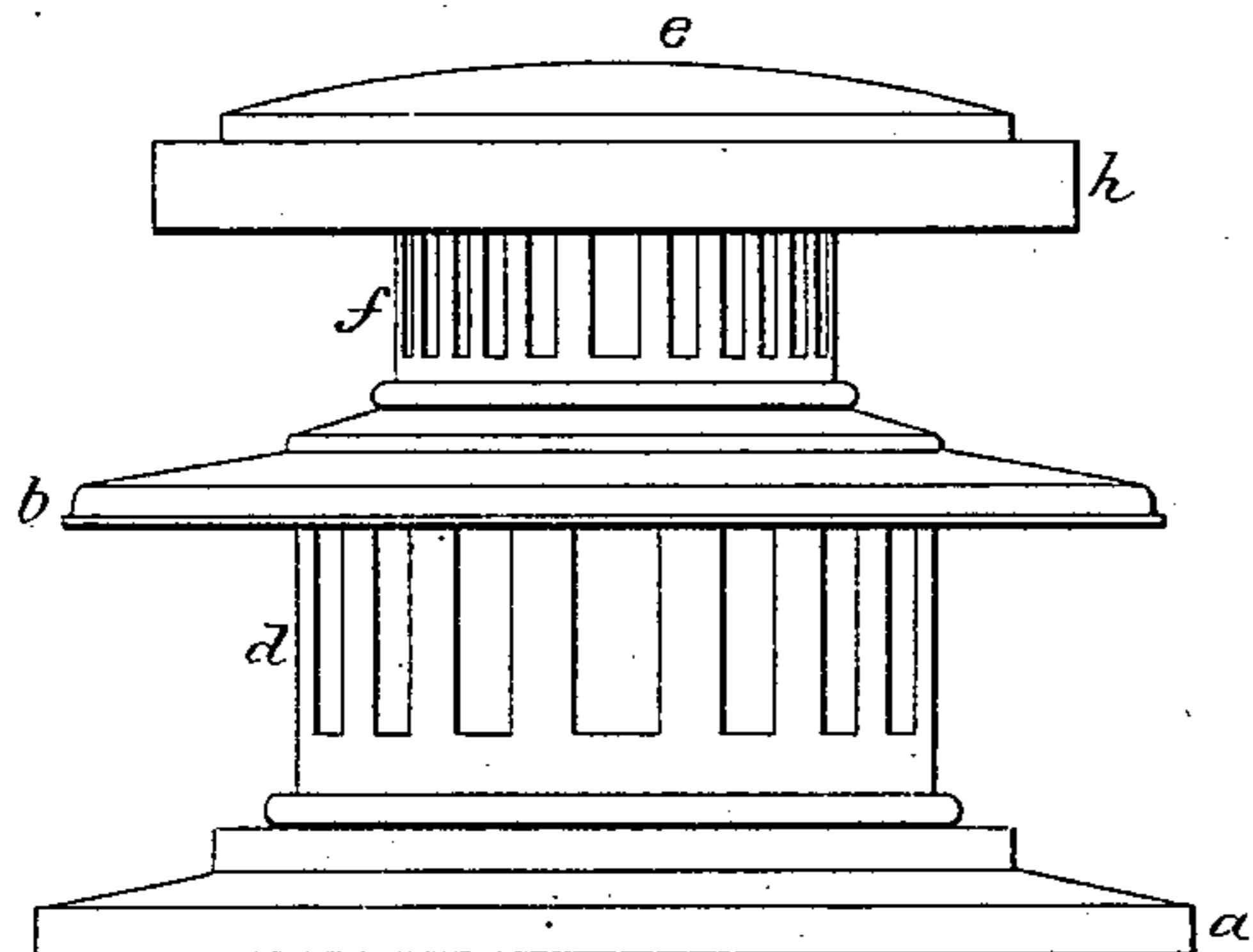


fig. 2

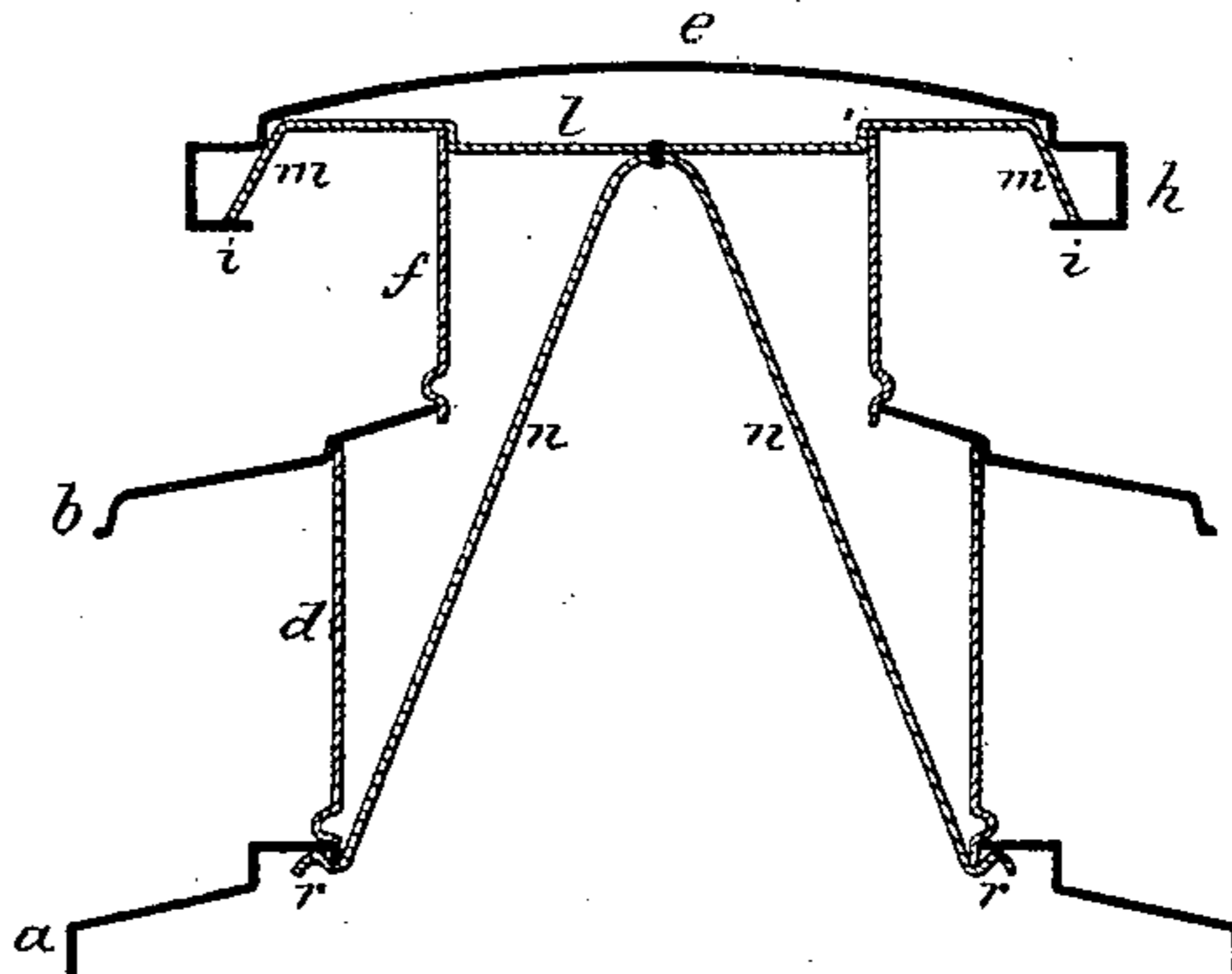


fig. 3

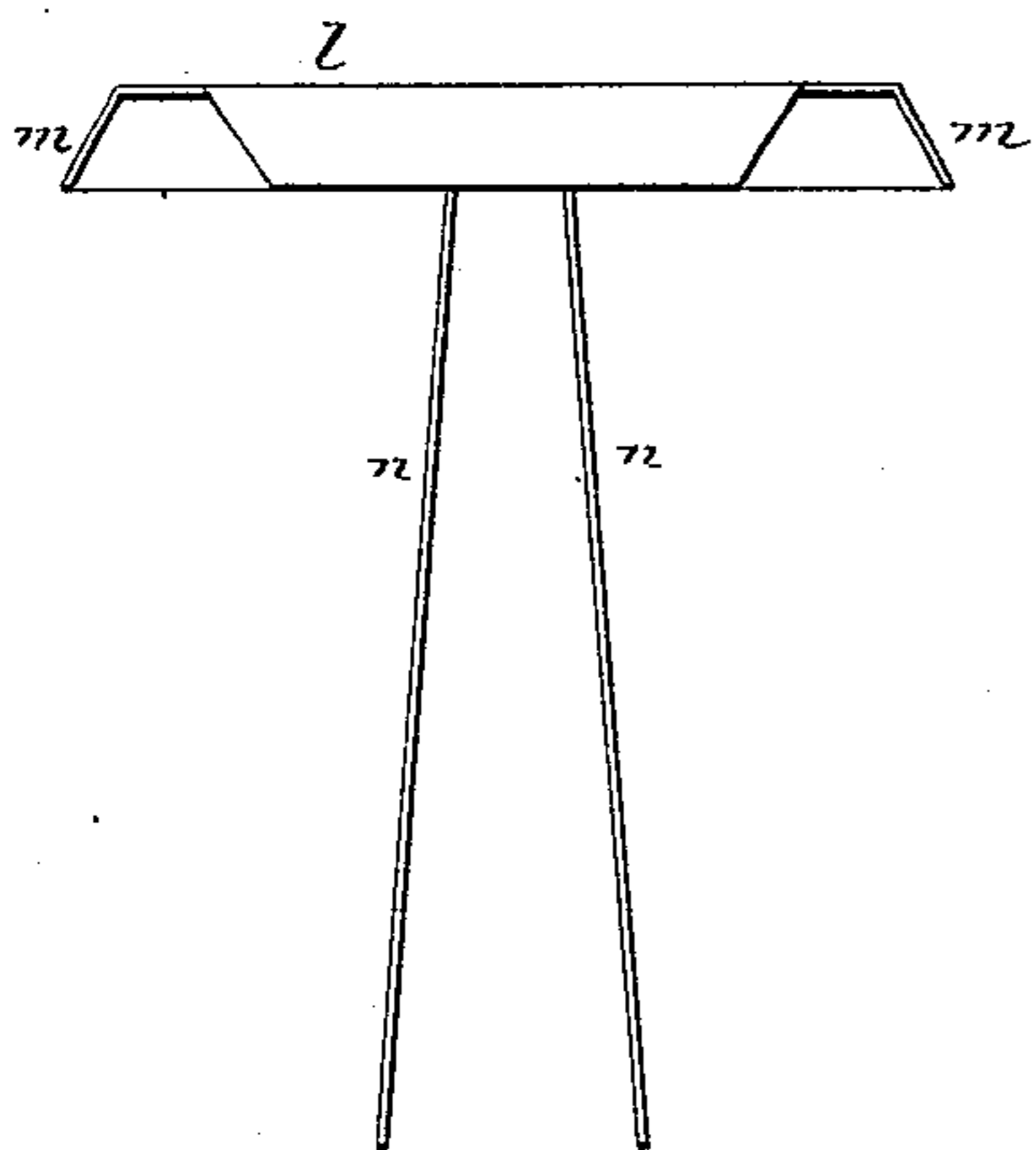


fig. 4

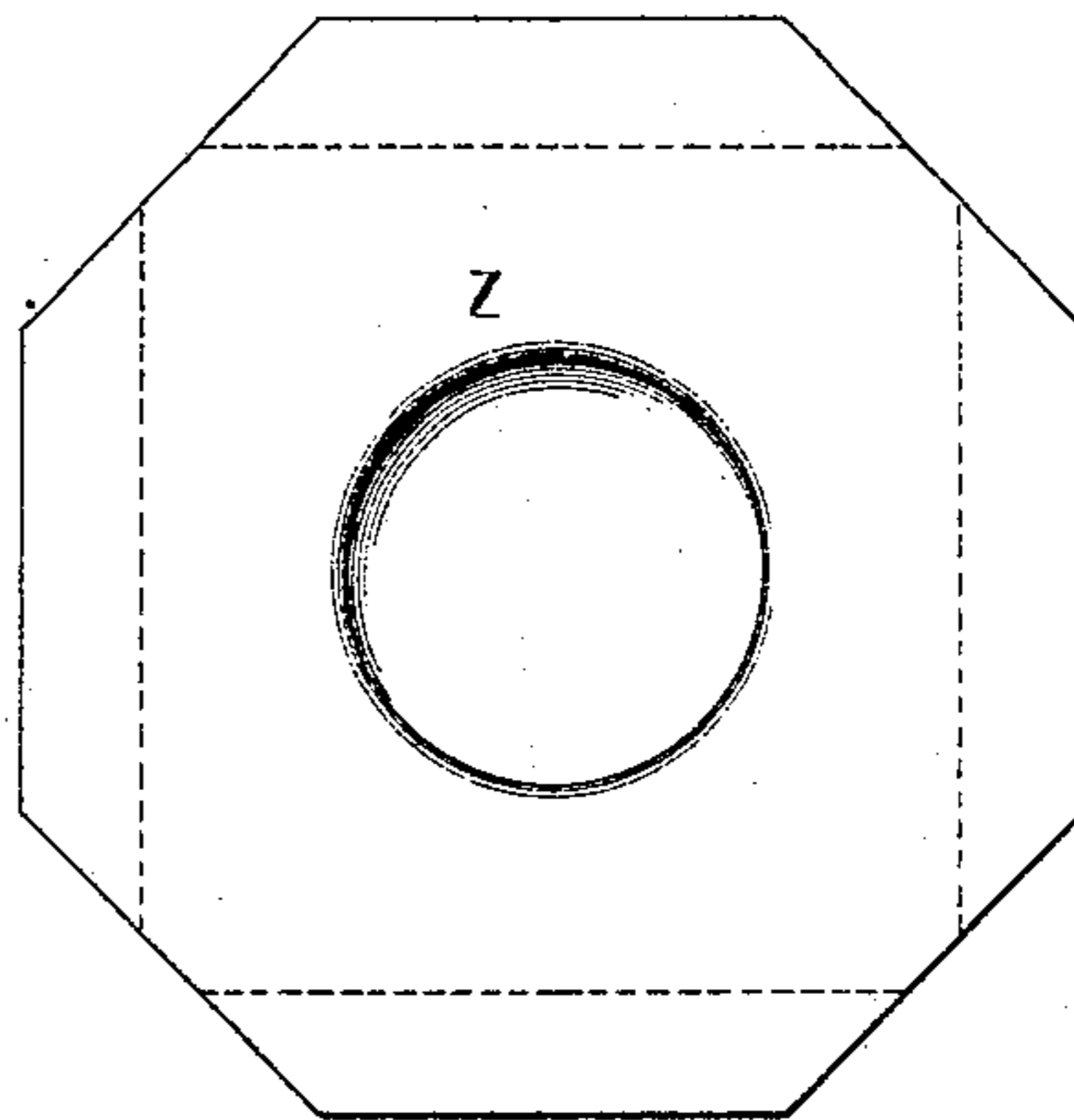
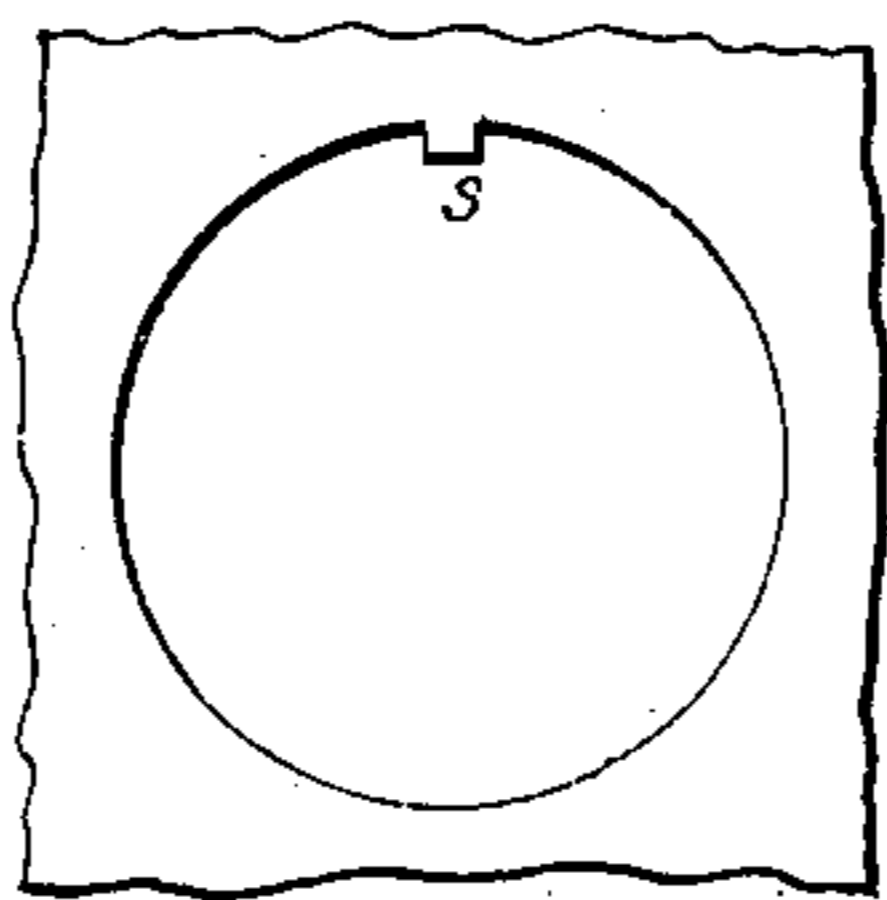


fig. 5



Witnesses.

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CARRIAGE-LAMP.

SPECIFICATION forming part of Letters Patent No. 270,385, dated January 9, 1883.

Application filed July 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, FRED. C. CANNON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Carriage-Lamps; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Fig. 2, a vertical central section; Fig. 3, a side view of the connection detached; Fig. 4, the blank from which the connecting-plate is made; Fig. 5, modification.

This invention relates to an improvement in the construction of carriage-lamps, with special reference to the top or portion of the lamp above the illuminating-chamber, and which is provided with openings for the escape of the products of combustion. These tops are usually made in several sections, one of which is seen in Fig. 1, and consists of the plate *a*, which forms the top of the combustion-chamber, a second plate, *b*, above, the two connected by a cylindrical section, *d*, the sides perforated, a cap, *e*, above, with a similar perforated section, *f*, between it and the intermediate plate, *b*. The plates are struck from sheet-tin, the cylindrical section *d* constructed to set into an opening in the top of the plate *a* and into a seat in the plate *b* above. The section *f* fits in like manner into an opening in the plate *b*, and onto this the cap *e* is placed. The openings afford an escape for the products of combustion, and the plates serve as a protector for those openings to prevent the extinguishing of the light within. These sections have usually been soldered together, depending upon such solder as a sole connection between the parts. Such soldering is an expensive part of the lamp, and frequently, when the flame is stronger than the lamp was intended to support, the heat from it will fuse the solder and cause the partial or entire separation of the parts.

The object of my invention is to avoid the use of solder and more permanently secure the parts together; and it consists in an internal clamping-plate constructed to engage the cap of the lamp, with arms extending from it down

through the cylindrical portions and the other plates into the top, where it is secured, as more fully hereinafter described.

As I have before described, the top *a*, the plate *b*, the cap *e*, and the two intermediate cylindrical sections, *d* *f*, are of substantially the usual form, arranged so as to be set together, the one upon the other. The cap *e* has a downwardly-projecting edge, *h*, turned in to form a flange, *i*. The clamping-plate *l* is cut in shape, as seen in Fig. 4—that is to say, provided the top of the lamp is square. The angles are cut off and the edge turned down, as in broken lines, Fig. 4, to form downwardly-projecting springs *m*. The size of the plate where the the springs are bent down must be somewhat smaller than the opening into the cap at the bottom—that is, between the opposite flanges, *i* *i*; but the springs are inclined outward, so as to cover a space greater than that distance between the flanges, so that the plate may be pressed into the cap, the springs *m* yielding to pass the flanges *i*, and when they have passed those flanges fly outward, as seen in Fig. 2. The central portion of the clamping-plate *l* is constructed to form a seat for the top of the section *f*, preferably by making a depression in the plate, which will enter that section. To the under side of the clamping-plate *l* a strip of tin or a piece of wire is attached, the two ends extending downward to form arms *n* *n*, and through the sections *f* *d* the extreme ends of these arms, when the parts are drawn tightly together, are turned beneath the lower edge of the section *b* and onto the under side of the top *a*, as seen at *r*. This firmly secures the parts together. The strip of tin or wire which forms the arms *n* *n* is riveted to the clamp *l*; hence no solder is required to attach these parts, and the top is made as complete and perfect, so far as utility is concerned, as if made in a single piece.

Should occasion require repair of any of the top portion of the lamp, the ends of the arms *n* *n* may be turned away from their connection with the top *r*, and then the parts are easily separated, to be again united when the repairs are made.

Usually the lamp, the plate *b*, and the cap are square and the sections *d* *f* cylindrical; but they may be of other shape. If the sections *d*

f are cylindrical, then, unless prevented, the parts would turn one upon the other. To avoid such turning, a drop of solder may be applied at any of the joints; or, which I prefer, a tongue, *s*, may be made (see Fig. 5) in the openings in the plates and a corresponding notch in the cylindrical sections; or other interlocking mechanism may be employed.

In lamps of this construction the greatest heat necessarily comes upon the cap. The spring-clamp, therefore, may only be used as a means for clamping the cap to the other part of the lamp, those parts being soldered together, as heretofore; or the clamp may be secured to the upper section only and serve as the inner plate for the cap, and also as a means for securing the cap in place, as the clamping-plate may be secured before the cap is put on; or the securing straps or connections may be used to connect the several parts without the spring-connection between the cap and clamping-plate—that is to say, the connection may be attached to the cap—as, for instance, the clamping-plate may be made without the spring and soldered to the cap. Then the parts may be secured by a connection from the cap downward, as before.

I claim—

1. In a carriage-lamp, the combination of the clamping-plate *l*, constructed with its springs *m*, with the cap *c*, constructed to receive the springs of the clamping-plate, substantially as described.

2. In a carriage-lamp, the clamping-plate *l*, constructed with its springs *m* to engage the cap, and connections extending from the clamping-plate downward and secured within the top, substantially as described.

3. In a carriage-lamp, the cap and several sections which compose the top, combined with a clamping-plate, *l*, constructed with springs *m* to engage the cap and connections from said clamping-plate downward within the lamp to secure the said parts together, substantially as described.

4. A carriage-lamp constructed with the arms or connections *n n*, extending from the cap downward to secure the parts together, substantially as described.

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Witnesses:

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