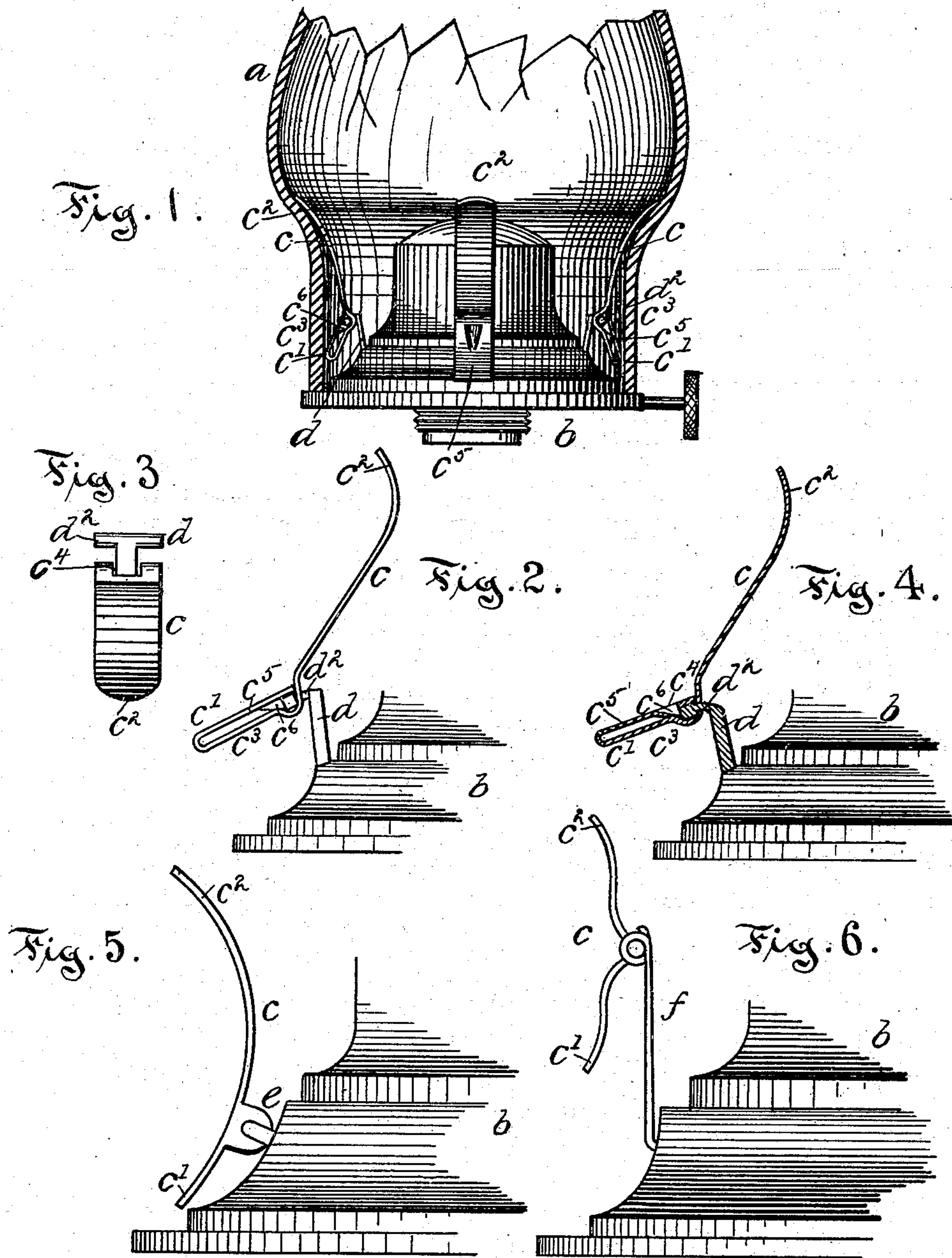


(No Model.)

C. A. TAPLIN.
LAMP BURNER.

No. 503,755.

Patented Aug. 22, 1893.



Witnesses.
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UNITED STATES PATENT OFFICE.

CLARENCE A. TAPLIN, OF FORESTVILLE, CONNECTICUT.

LAMP-BURNER.

SPECIFICATION forming part of Letters Patent No. 503,755, dated August 22, 1893.

Application filed January 5, 1893. Serial No. 457,355. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE A. TAPLIN, of Forestville, in the county of Hartford and State of Connecticut, have invented certain
5 new and useful Improvements in Lamp-Burners, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

The object of my invention is to provide
10 means for removably securing a lamp chimney to a burner that shall not require especial care as to the placing of the chimney in the operation, that shall afford a stable support for the chimney and that shall be positive in operation; and a further object of my
15 invention is to provide such a device that shall be durable, simple in operation and cheap of construction.

To this end my invention consists in providing a device having a number of holding arms presenting a number of bearing points against the chimney, each arm being pivotally attached to the chimney support between the bearing surfaces; and it further
25 consists in details of the several parts making up the device as a whole and in their combination, as more particularly hereinafter described and pointed out in the claims.

Referring to the drawings: Figure 1 is a
30 view in elevation, partly in section, of a lamp burner and chimney secured thereto by means of my improved fastening device. Fig. 2 is a detail view, on enlarged scale, of a portion of a burner showing the device in edge view. Fig. 3 is a detail top view, on enlarged scale,
35 of a holding arm and its support. Fig. 4 is a detail view, on enlarged scale, of a part of a burner and in lengthwise section of a holding arm and its support. Fig. 5 is a detail view, on enlarged scale, of a part of a lamp burner showing a different form of the invention. Fig. 6 is a detail view, on enlarged
40 scale, of a part of a lamp burner showing still another form of the invention.

45 In the accompanying drawings illustrating my invention the letter *a* denotes a lamp chimney that may be patterned after any of the well known forms and that may be removably attached to the lamp burner *b*; this
50 burner may be made of any desired material, preferably brass, and to it are secured the chimney holding arms *c* extending up-

ward within the chimney and removably securing the latter to the burner. These arms
c are made of metal, brass being preferred, 55 as that metal has been found by experience to possess the necessary resilient qualities that secure the best results. They are of such form that the lower part *c'* of the arm shall bear against the chimney near the bottom 60 thereof, while the upper part *c''* of the arm has a bearing against the chimney at a point somewhat nearer its top, preferably above the bend or base of swell when the chimney has this form. The arms are made, in the 65 desired form, so that the top part *c''* shall engage within the chimney before the bottom part *c'* has reached a bearing therein, which will cause the arms to bear against the chimney with a yielding pressure. A result of 70 this construction in the use of a chimney with the well known swell is that the more force applied to remove the chimney the greater will be the pressure of the lower end of the arm against the bottom of the chimney. 75

In the preferred form of the device, shown in the first four figures of the drawings the letter *d* denotes a pivotal support for the holding arm that is pivoted to the former at a point between the bearings of the arm upon 80 the chimney. The support is secured to the burner at its lower end and the upper end is bent outward, recesses being cut in each edge forming a T-shaped end *d'* upon which the holding arm is pivoted. This T-shaped end 85 has preferably on its upper side a flat bearing surface against which the spring located on the holding arm abuts.

The holding arms *c*, as before stated, are preferably made from thin spring metal and 90 a suitable socket for the reception of the pivot is formed in the arm, as by bending the arm to the shape shown at *c''*. A locking slit *c'''* is formed in the arm to afford means of assembling the parts. The end *c'''* of the arm is bent 95 backward upon the latter forming a spring bearing against the flat surface of the T-shaped end or pivot *d'* tending to hold the arm with its upper end at the inner limit of its play. A stop *c''''* is formed on this spring, 100 preferably by punching up the metal and thus forming one side of the socket for the pivot *d'*. This construction holds the upper ends of the several arms normally inward so that

there is little chance of misplacing the chimney in the operation of affixing it to the burner, the former as it is forced into place causing the upper ends of the arms to swing outward until they bear with a yielding pressure against the sides of the chimney holding it firmly and securely in place.

To assemble the parts the chimney holding arm *c* is placed in a position at about right angles to the pivotal support *d*, the outer T-shaped end of which is inserted in the locking slit to an extent sufficient to enable the arm to be turned to its proper position at which time the pivot slips into the socket *c*³ and is securely held within said socket by means of the stop *c*⁶.

In the modified form of the device shown in Fig. 5 the holding arms are simply pivoted or hinged to the burner, as shown at *e*, while in the modified form shown in Fig. 6 the arms are pivoted or hinged to the upper ends of the supports *f* at a point midway between each of the bearing ends.

My invention has been described herein with special reference to a holding arm having a spring action, but it is not limited in such a particular, as in some forms thereof the support may be of yielding material and the arm rigid, or both parts made rigid to a degree, in which case it would be possible to rigidly secure the arm to the support and attain the desired result. It is also obvious that the invention is embodied in a device in which the parts may be simply reversed so as to cause the holding arms to have a bearing upon the outside of the chimney instead of on the inside, and I do not limit myself to a device in which a number of bearing surfaces are provided within a lamp chimney, but any device embodying a holding arm having a number of bearing surfaces upon a chimney, said arm being pivotally supported between these bearing points, is understood to come within the limits of my invention.

I claim as my invention—

1. In combination in a lamp burner, the spring arms pivotally supported on the burner at a point between the ends of each of said arms which are provided with a number of chimney bearing surfaces, all substantially as described.

2. In combination in a lamp burner, a spring arm with its upper end adapted to engage within the swell of the chimney and its lower end adapted to press outward against the bottom of the chimney, said arm being pivoted to the burner at a point between said chimney engaging surfaces, all substantially as described.

3. In combination in a lamp burner, an arm support having its lower end secured to the burner base, and the swinging arm having a number of chimney bearing surfaces and at-

tached to the upper end of said arm support between the chimney bearing surfaces, all substantially as described.

4. In combination with a chimney seat, an arm support having one end secured to said seat, and projecting upward therefrom a spring holding arm provided with a number of chimney bearing surfaces and pivoted to the upper end of said support between said bearing surfaces, and a spring tending to hold the upper end of the arm in position to receive the chimney base, all substantially as described.

5. In combination with a chimney seat, an arm support with one end secured to said seat and the opposite end formed to T-shape and having a flat spring bearing surface, and the holding arm pivoted to the T-shaped end of the arm support and having a spring in bearing contact with the flat spring bearing surface, all substantially as described.

6. In combination with a chimney seat, an arm support having one end secured to said seat and the opposite end formed to T-shape having a flat spring bearing surface, the spring holding arm pivoted to said T-shaped end, the pivot socket located in said holding arm, the spring located on the holding arm and bearing against the flat surface upon the T-shaped end, and the stop located on the holding arm whereby the pivot is held within its socket, all substantially as described.

7. In combination with a chimney seat, an arm support having one end secured to said seat and the opposite end formed to T-shape with a flat spring bearing surface, the spring holding arm pivoted to said T-shaped end, the pivot socket located in said holding arm, the engaging slot, the spring located on the holding arm, bearing against the flat surface upon the T-shaped end of the arm support and provided with the stop forming part of one side of the pivot socket whereby said pivot is held within its socket, all substantially as described.

8. In combination in a lamp burner, a chimney holding arm made of a single piece of spring metal having an integral pivot socket, a spring formed by the back turned end of the arm, and an integral stop formed by punching up the substance of the metal, all substantially as described.

9. In combination in a lamp burner, a chimney seat, a support with one end secured to the seat, and the other end bearing a spring actuated holding arm provided with a number of chimney bearing surfaces, all substantially as described.

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Witnesses:

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