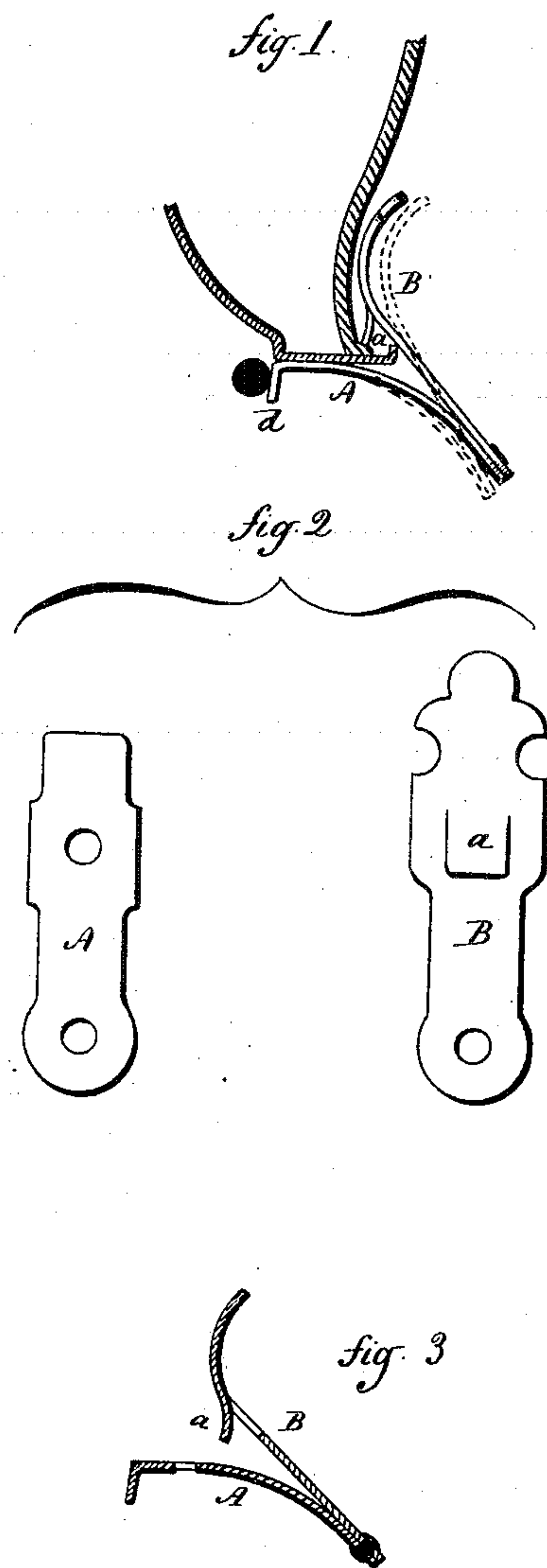


W. N. WEEDEN.
Lamp-Burner Springs.

No. 164,622.

Patented June 15, 1875.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM N. WEEDEN, OF WATERBURY, CONN., ASSIGNOR TO BENEDICT & BURNHAM MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN LAMP-BURNER SPRINGS.

Specification forming part of Letters Patent No. 164,622, dated June 15, 1875; application filed January 7, 1875.

To all whom it may concern:

Be it known that I, WM. N. WEEDEN, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Lamp-Burner Spring; and I do hereby declare the following, when taken in connection with the 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, section of a burner, showing side view of spring; Fig. 2, the two parts of the spring detached; Fig. 3, sectional view of the spring.

This invention relates to an improvement in the construction of the spring usually employed in that class of burners in which the chimney-rest is hinged to the lower part of the burner, so that the chimney may be turned away to expose the wick for trimming or lighting without removing the chimney, commonly called "hinge-burners," but applicable to burners not hinged, but using a flange-chimney, the use of the spring being to secure the chimney to the rest, and in hinged burners the rest to the part below, but yet allow of its being easily opened or the chimney removed.

This spring has usually been made from wire coiled so as to give considerable length for elasticity, or made from sheet metal. The wire springs are frail and easily bent out of shape.

The sheet-metal springs must be made from a metal so soft as not to break in bending into the required shape, or many will be lost. If so soft as to avoid the breaking of any springs, there is so little elasticity to the spring as to make it of little use; but if hard enough to give an approximation to the necessary elasticity, very many will be broken in bending, thereby making sheet-metal springs an expensive part of the burner.

The object of this invention is to produce a spring which shall avoid all objections to previous constructions; and it consists in forming the spring from two pieces of metal, their meeting ends riveted or otherwise secured together, the other end of one part attached to the chimney-rest or other convenient part of the burner, the other free to se-

cure the chimney, as more fully hereinafter described.

A is the one part, and B the other part, of the spring, cut from sheet metal sufficiently hard for the required elasticity. These are bent into shape longitudinally, substantially as seen in Fig. 3, or according to the style of the burner. The part A is permanently attached by one end to the chimney-rest or other convenient part of the burner, the other end to the corresponding end of the part B.

The part B is formed with a tongue or projection, *a*, and extends up, so that when free the projection *a* will stand over the flange of the chimney, as seen in Fig. 1, and thereby hold the chimney in place.

To remove the chimney, turn back the part B until the flange of the chimney will pass the tongue *a*. In doing this both parts of the spring yield, as denoted in broken lines, Fig. 1, thus giving a spring of a length practically equal to the combined length of the two parts.

If a spring were made from a single piece bent together, as where these two parts are united, the metal must necessarily be so soft as to render the spring practically useless for the purpose intended, or it would break.

If the spring be made of a single piece attached to the burner below the chimney-rest, and brought directly up, as in the usual construction, it is so short as not to possess the requisite degree of elasticity, and will unavoidably bend when drawn back for the placing or removal of the chimney.

In the case of hinge-burners, the end of the part A is turned down, as at *d*, to engage a corresponding point on the lower part of the burner, to hold the chimney-rest in its closed position, as in Fig. 1.

I claim—

In a lamp-burner, the spring securing the chimney, consisting of the two parts A B, both elastic, the outer ends of the two parts secured together, and the inner end of the part A secured to the burner, the inner end of the part B turned up over the chimney-rest, substantially as described.

WM. N. WEEDEN.

Witnesses:

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