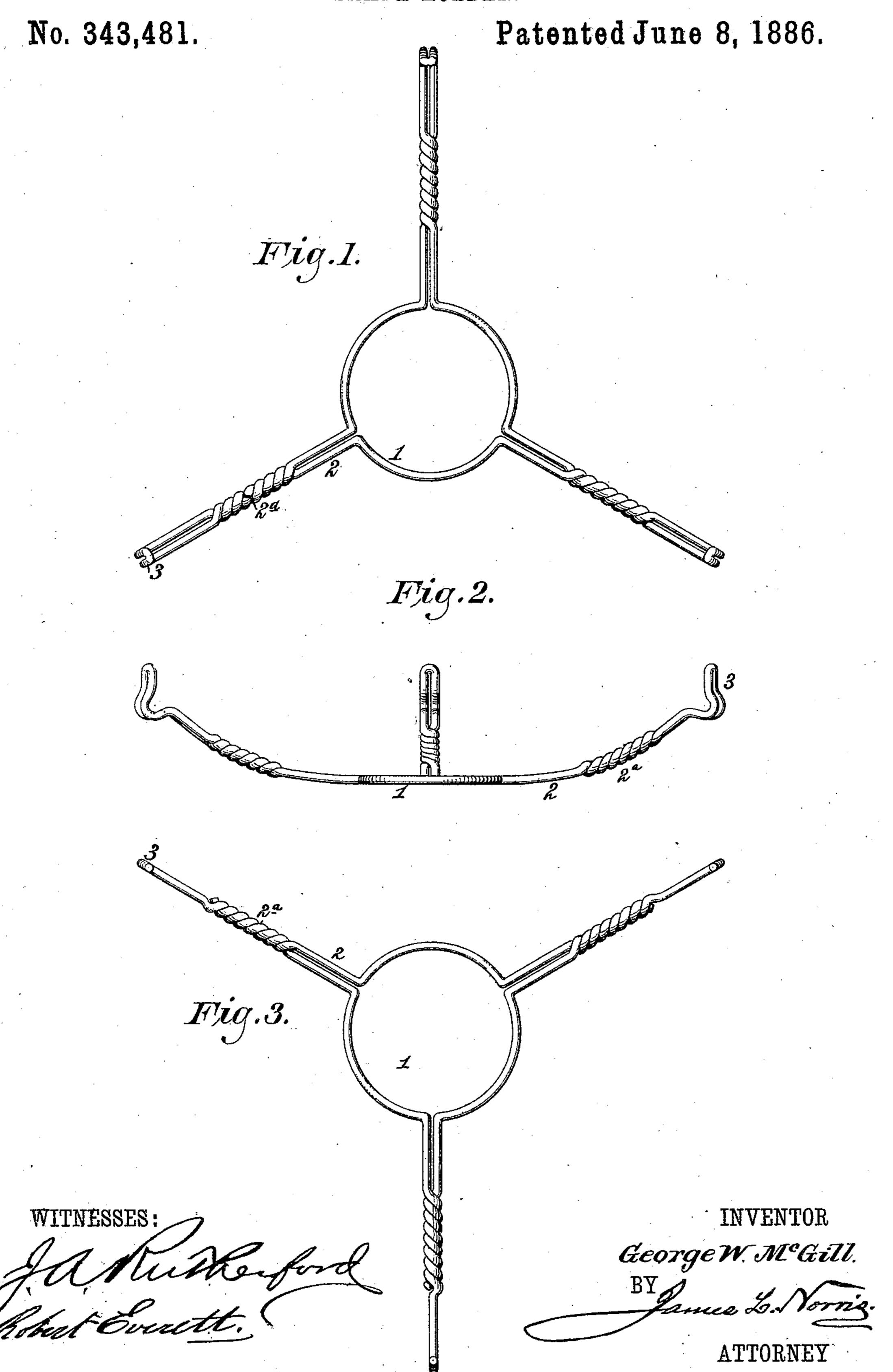
## G. W. McGILL.

SHADE HOLDER.



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No. 343,481

Patented June 8, 1886.



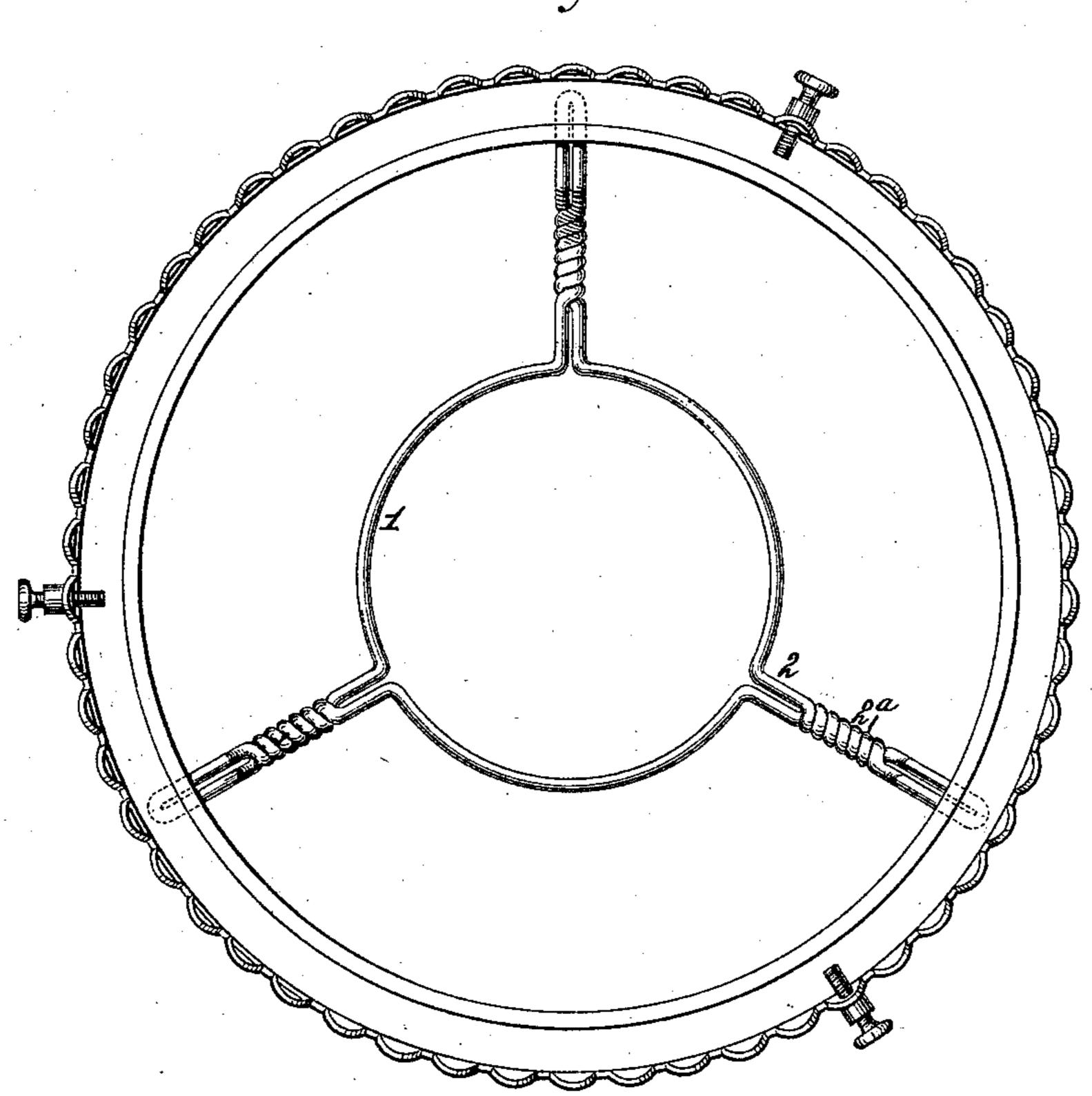
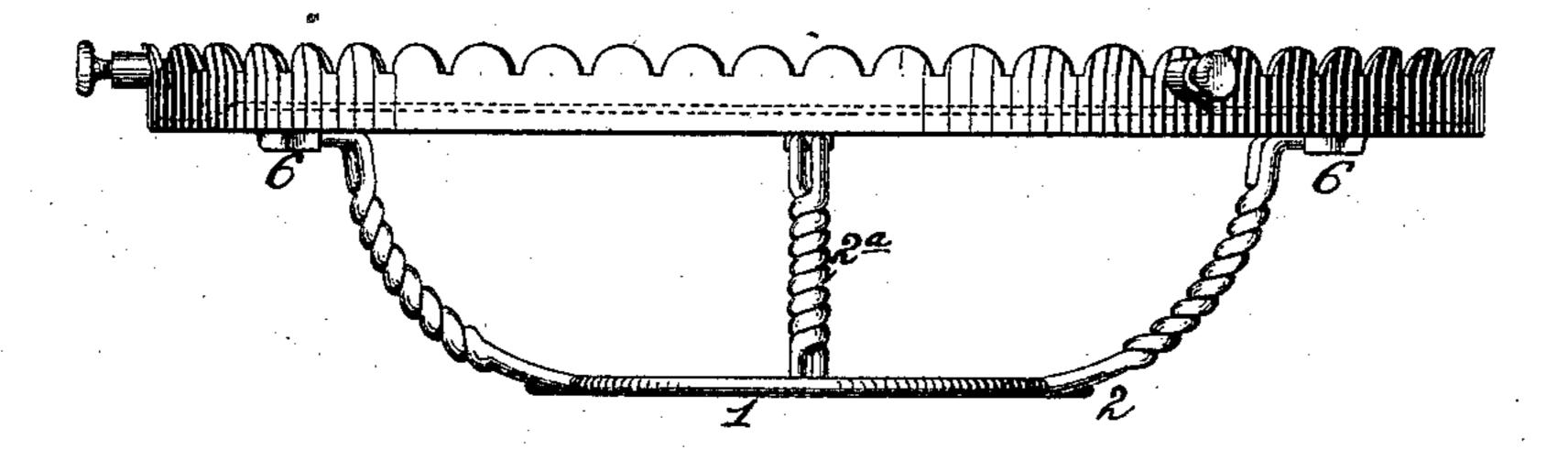


Fig. 5.



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## SHADE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 343,481, dated June 8, 1886.

Application filed December 9, 1885. Serial No. 185,176. (No model.)

To all whom it may concern:

Be it known that I, George W. McGill, a citizen of the United States, residing at Riverdale, in the county of New York and State of New York, have invented new and useful Improvements in Shade-Holders, of which the following is a specification.

My invention relates to a shade support or holder for lamps and gas-fixtures, &c., and is intended to produce a suitable support for the shade, having a center ring elastic and capable of being sprung open, to enable it to be placed and tightly fit and clasp burners varying somewhat in diameter, as most burners do. In construction the holder is strong, simple, and inexpensive.

My invention consists in the several novel features of construction and combinations of parts hereinafter fully described, and definitely pointed out in the claims forming part of this specification.

Referring to the accompanying drawings, Figure 1 is a plan view of the device. Fig. 2 is a side elevation. Fig. 3 is a plan view showing a modified construction. Fig. 4 is a plan view showing the holder in combination with a sheet-metal crown or seat, which receives and holds the shade; and Fig. 5 is a side elevation of Fig. 4.

Similar letters or numbers of reference indicate corresponding parts.

In the drawings, reference-numeral 1 is the elastic ring or loop of the holder, from which project at intervals three or more radial arms, 35  $\bar{2}$ , all provided at their outer ends with a hook, 3, adapted in unison to receive and hold the shade, or to support a metallic crown or annulus to receive and hold it. The holder comprising these parts may be fashioned from 40 a single piece of suitable wire, bent as shown in Fig. 1—that is to say, folded in the manner to form the central elastic ring or claspingloop 1 and arms 2 radiating therefrom. The wire forming the arms is doubled, and the 45 strands in each arm are locked together in their center by a spiral twist, 2a, which gives strength to the arms and elasticity to the center ring, 1, and holds it tightly shut upon the burner upon which it may be sprung. The 50 ends of the single piece of wire forming the

holder so constructed may terminate in one of the spiral twists, as shown in the drawings, thereby rendering the wire practically endless; or they may be brazed or soldered together, or joined in any other suitable manner. The 55 spiral twist 2<sup>a</sup> may be of greater or less extent, the elastic resistance of the central annulus being increased by bringing the twist toward the inner ends of the arms.

The holder may be made of three, four, or 60 more pieces of wire, as shown in Fig. 3. This figure shows the holder made from three pieces of wire of equal length, each formed into staple shape having arms of unequal length, the long arms of each terminating in the shade- 65 holding hooks 3, and the short arms in a spiral twist, 2<sup>a</sup>, with the long arm of the adjoining staple, the combined heads of the staples forming the elastic center-ring, 1. This form of construction may be further modified by mak- 70 ing the holder of four pieces of wire of staple form, the arms of two of these pieces terminating in the shade-holding hooks 3 and the arms of the other pieces terminating in a spiral, 2ª, twisted around the hooked arms, one around 75 each, the heads of each staple forming a segment of the central elastic ring, 1.

When separate pieces of wire are employed in making the holder, there will be as many of such pieces as there are arms 2, the ends of 80 every two pieces forming one of such arms.

The shade may be placed upon or within the holding-hooks 3 direct; or a metallic seat or crown, 6, may be attached to the ends of the arms 2, in lieu of such hooks, to receive 85 and hold the shade, as shown in Figs. 4 and 5.

The essential feature of this invention is the spiral connection 2<sup>a</sup> between the wires formed in each radial arm 2, which gives strength to the arms and elasticity to the central ring or 90 annulus, 1, adapting it to fit upon and closely clasp burners of varying sizes.

Having thus described my invention, what I claim is—

1. A shade-holder composed of one or more pieces of wire, consisting of an expansible central annulus with radial arms having hooks upon their outer ends and spirally twisted centrally between the hooks and the annulus, with an untwisted portion between the inner 100

end of the spiral twist and the annulus, to impart elasticity to the latter and enable it to

expand, substantially as described.

2. A shade-holder composed of one or more pieces of wire and consisting of a central loop or annulus having radial arms composed of the same wire in parallel strands, said arms having hooks upon their ends and being twisted between said hooks and the central loop, with an untwisted portion between the inner end of each spiral twist and the loop, to permit the latter to expand, substantially as described.

3. A shade-holder composed of three or more pieces of wire, each piece forming a section of a central loop and being extended radially therefrom and twisted with the like portions of the adjacent pieces, each piece having an extended end bent into a hook beyond the

spiral twist and provided with an untwisted 20 portion between the inner end of the spiral twist and the loop, to permit the latter to ex-

pand, substantially as described.

4. A shade-holder composed of wire bent into a central loop and having arms formed of 25 two parallel strands of the wire bent at their ends into hooks and twisted between said hooks and the central loop, with an untwisted portion between the inner end of each twist and said loop, to permit the latter to expand, 30 in combination with a metal crown or seat for the shade, substantially as described.

In testimony whereof I affix my signature in

presence of two witnesses.

GEORGE W. McGILL.

Witnesses:

W. R. Noé,

W. H. GREENLAND.