

G. MOONEY.

Chimney-Holder for Gas-Burners.

No. 129,158.

Patented July 16, 1872.

Fig. 1.

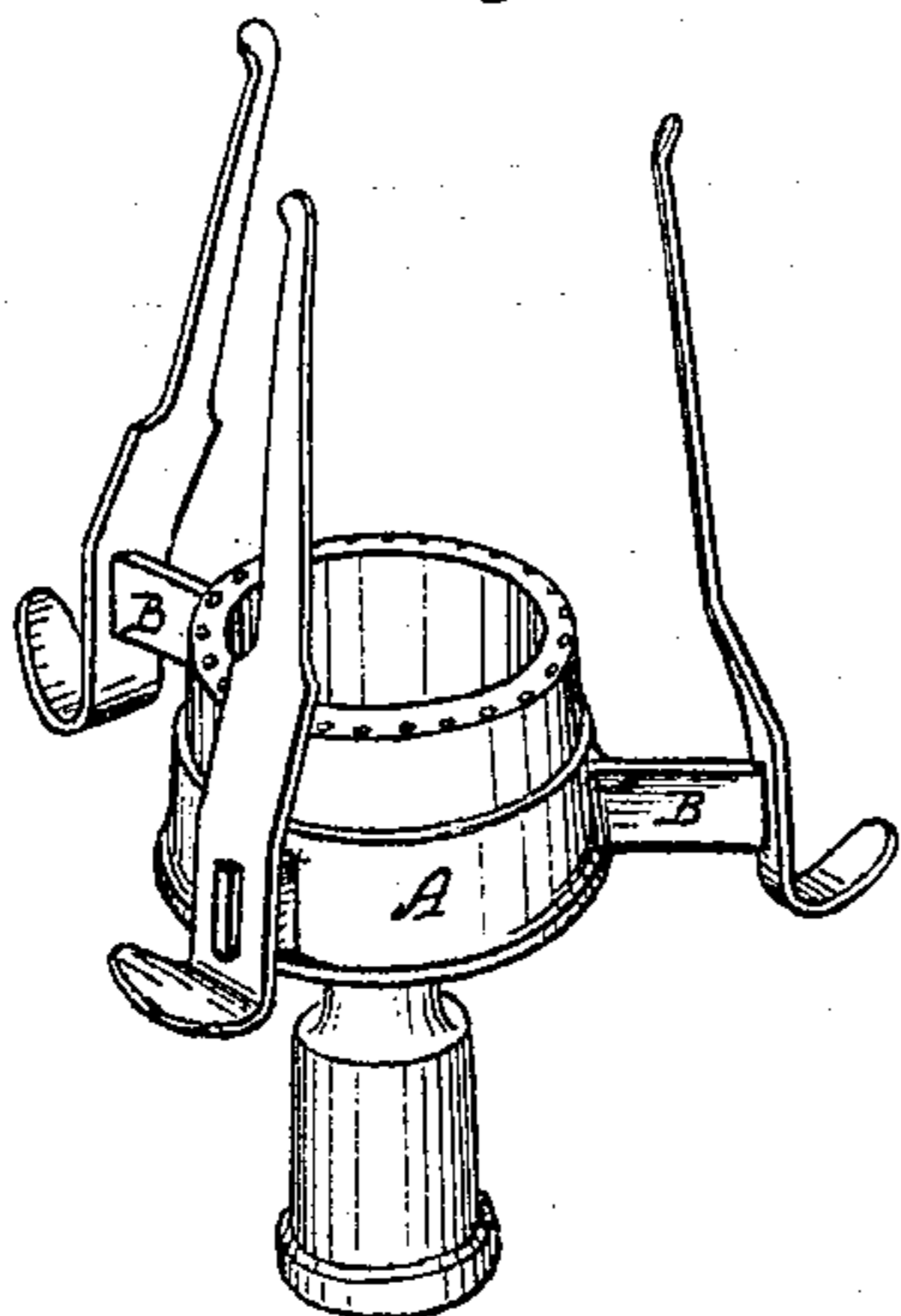


Fig. 2.

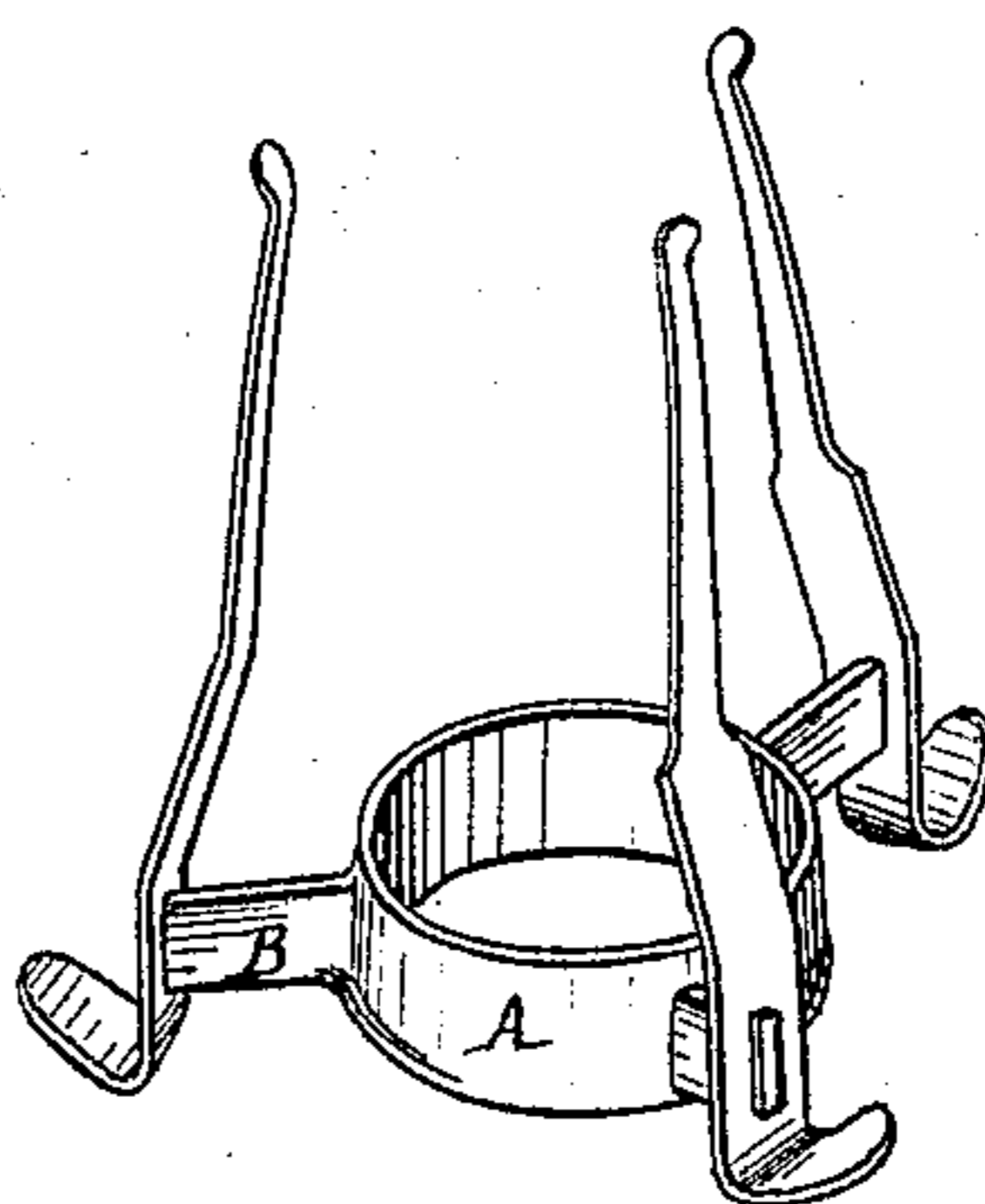


Fig. 3.

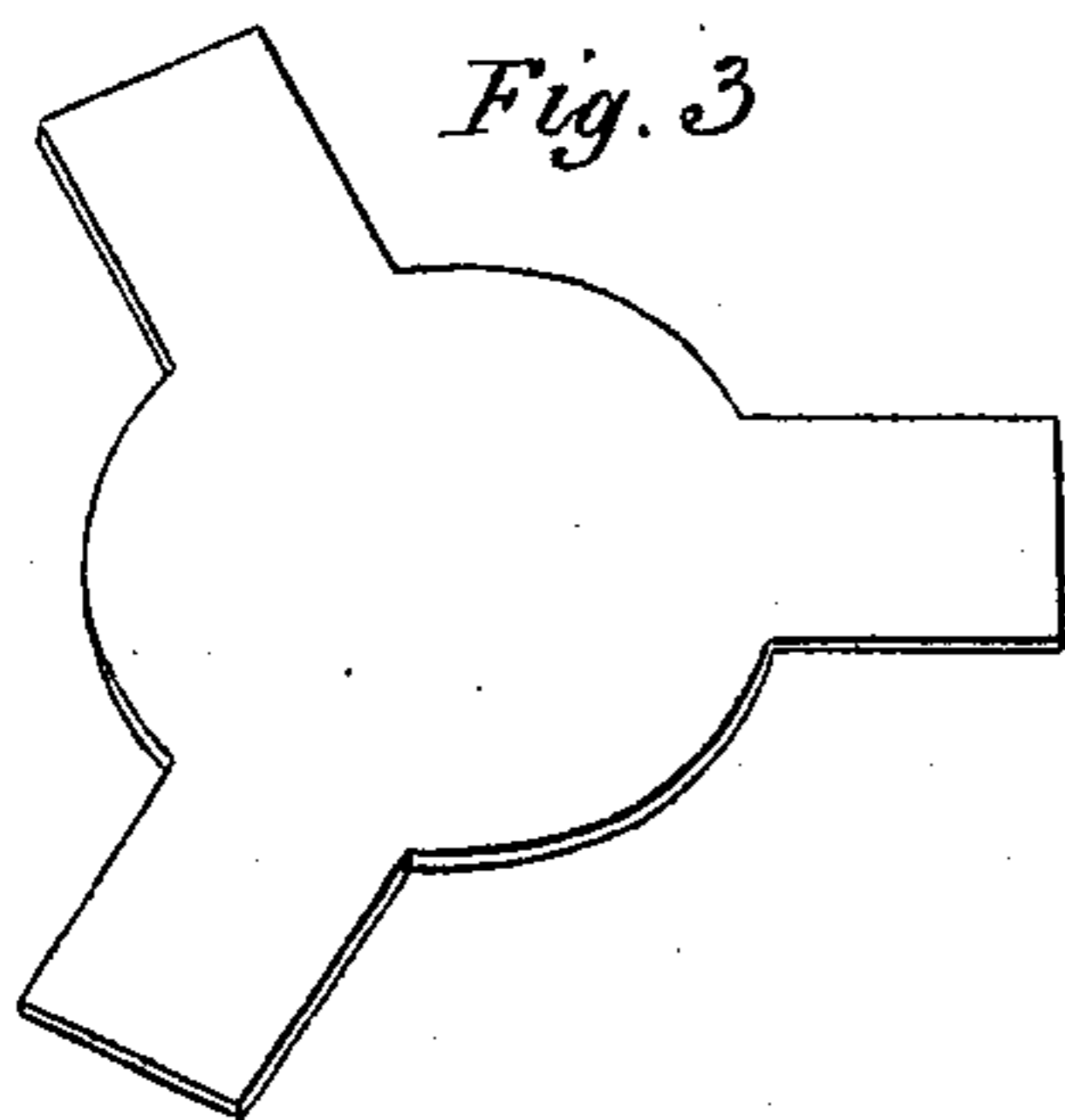


Fig. 4.

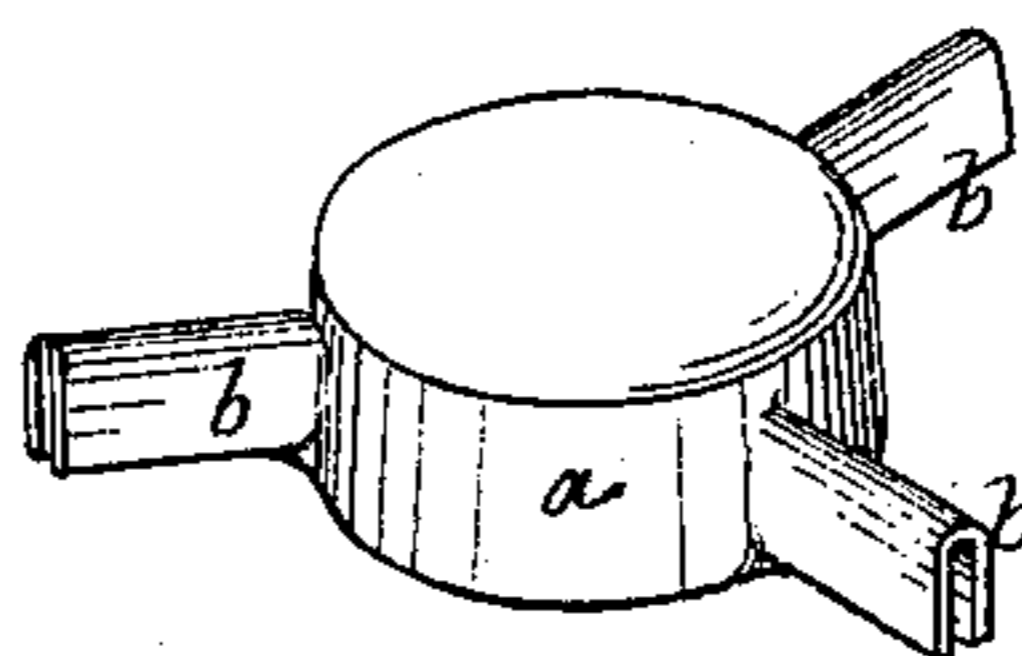


Fig. 5.

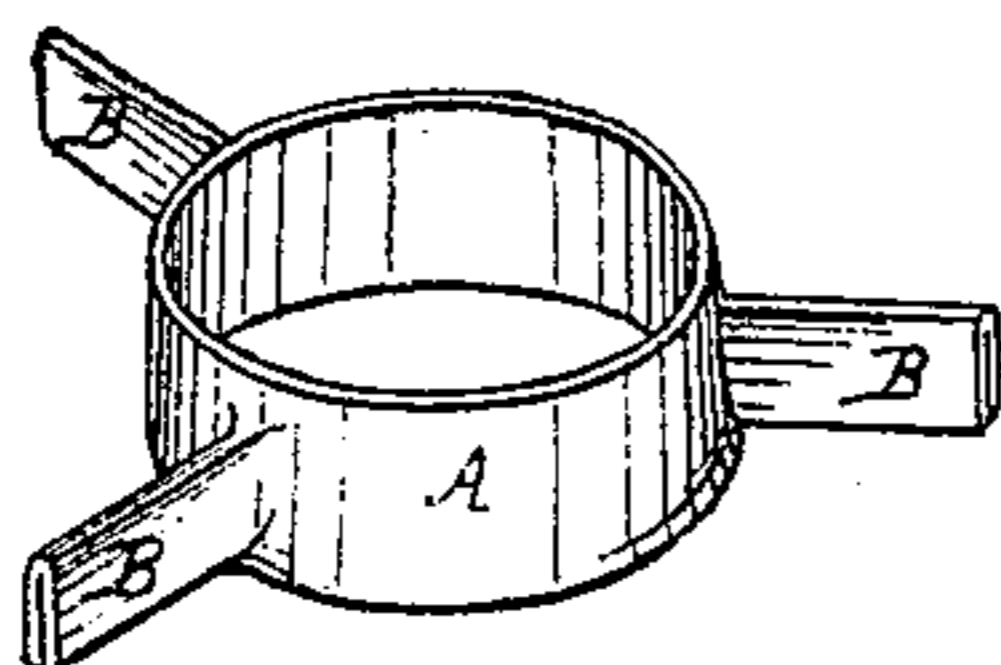
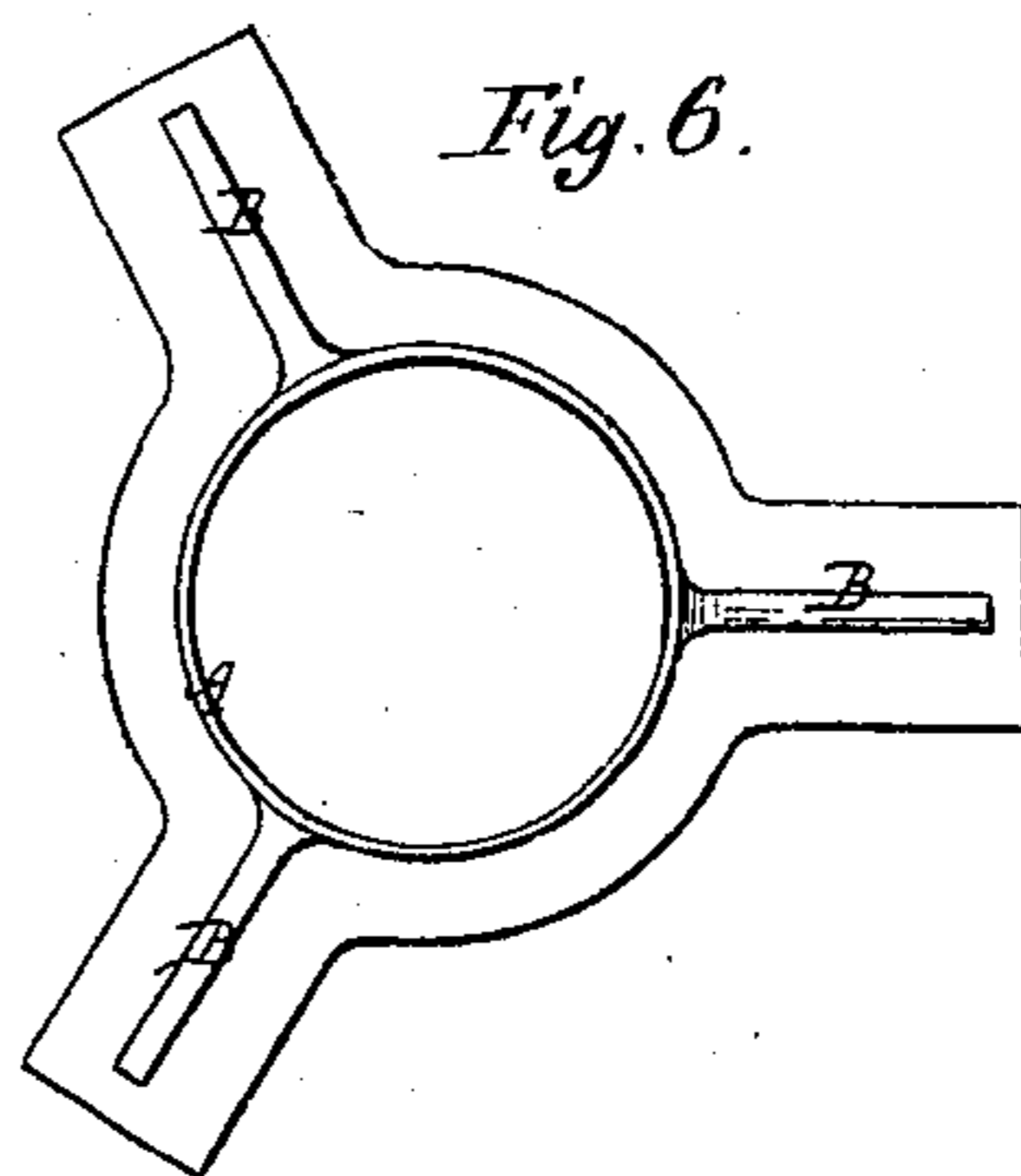


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE MOONEY, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO JAMES SHAW, JR., OF SAME PLACE.

IMPROVEMENT IN CHIMNEY-HOLDERS FOR GAS-BURNERS.

Specification forming part of Letters Patent No. 129,158, dated July 16, 1872.

To all whom it may concern:

Be it known, that I, GEORGE MOONEY, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Chimney-Holder for Gas-Burners, &c., and a novel method for manufacturing the same.

My invention relates to that class of chimney-holders which are applicable to Argand and other similar burners, and which consist generally of a ring fitted to the exterior of the burner, several radial horizontal arms and several uprights, one of which is attached to the outer end of each arm. My invention consists in constructing the base of the holder, consisting of the ring and the horizontal radial arms, of a single piece of rolled or sheet metal, cut out, struck up, and formed by means of dies suited to the purpose, resulting in economy of metal, cost of production, and in increased strength and durability; and I do hereby declare that the following specification, taken in connection with the drawing furnished and forming a part of the same, is a clear, true, and exact description of my invention.

Referring to the drawing, Figure 1 represents one of my improved chimney-holders, in perspective, as if attached to an Argand gas-burner. Fig. 2 represents the holder detached, in perspective. Fig. 3 represents a sheet-metal blank, from which the central ring and radial arms are formed. Fig. 4 represents the same blank after having been subjected to the action of preliminary forming-dies. Fig. 5 represents the same after having been finally acted upon by the finishing forming-dies, and before the cutting-die has operated which removes the metal from the center of the blank and forms the ring. Fig. 6 represents the blank, Fig. 3, with the finished base, Fig. 5, placed thereon.

Chimney-holders of this class have heretofore been constructed as follows: With a cast-metal ring separate cast or rolled-metal radial arms, riveted endwise thereto, and to the uprights; with the ring and radial arms cast solid and riveted endwise to the uprights; with a cast or a rolled metal ring, to which are riveted endwise the uprights and the radial arms cut in one piece by dies from sheet metal. In this latter case the uprights are rigid and are practically out of use at the present time.

To economically construct the ring and the radial arms without sacrificing durability, strength, and neatness, is the object and practical result of my invention.

As illustrated in Fig. 3, a blank is cut from sheet metal, usually of brass, by means of dies, after the well-known methods. The metal, in thickness, should be a trifle thicker than is desired for the sides of the finished annular base A. The width of radial projections should be a trifle greater than double the vertical depth of the finished radial arms B. The comparative sizes of the cut blank and the finished base are clearly shown in Fig. 6. The blank, as shown in Fig. 3, is subjected to the action of forming-dies, which give it the form shown in Fig. 4. Persons skilled in the art will readily comprehend the character of the dies which are employed. They can briefly be described as having in the bed die a central annular recess, which corresponds exactly with the exterior of the unfinished ring *a* and arms *b*, shown in the figure, and that the plunger-die corresponds with its interior. It is readily observable that the radial arms *b* are formed with a gradual offset from the ring for a short distance before they extend horizontally, and that the arms are also gradually drawn from metal which is in the same horizontal plane with the central portion, into a position which is exactly vertical thereto, and that the only portion of the finished base which at all retains its original condition is the upper edge of the ring and the upper edges of the radial arms. The succeeding operation of another set of forming-dies, substantially of the character before described, changes the unfinished base, Fig. 4, to the one shown in Fig. 5. In Fig. 6 the original flat radial arms are shown to be much longer than the length of the finished arms, and the central circular portion much larger than the finished ring.

As compared with chimney-holders constructed by any of the methods heretofore known to me, there is practical economy in manufacturing such as are herein described, not only in labor, but in weight of metal, which, as brass of good quality is usually employed, is a considerable item of value. If cast rings are employed they must of necessity have considerable bulk, or the radial arms could not,

with security, be riveted endwise thereto. If rolled-metal tube be employed the same necessity for bulk of metal occurs.

With all the chimney-holders of this class heretofore known to me there is a positive rigidity of the ring and the radial arm; if the latter be not rigidly secured to the uprights the spring effect therein will not be available. In my improved holder, there is an elasticity in the radial arms and the ring, which becomes, in a measure, available through the spring uprights, and adds to their durability and efficiency.

From the fact that die-work cannot vary to any appreciable extent, the top edges of all the radial arms are in the same horizontal plane, and, therefore, the chimney when in contact therewith will be always vertical, assuming, of course, that the burner is properly

mounted on the fixture. When the arms and ring are cast solid the metal is more or less liable to twist out of shape in cooling; and if the arms are riveted to the ring, the work must of necessity be executed by cheap labor, and therefore frequent irregularities of position occur.

Having thus described my invention, I claim as new to be secured by Letters Patent—

As a new article of manufacture, a chimney-holder, in which the central ring and the several radial arms are solidly formed of rolled sheet metal struck up in dies, substantially as described, for the purposes specified.

GEORGE MOONEY.

Witnesses:

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