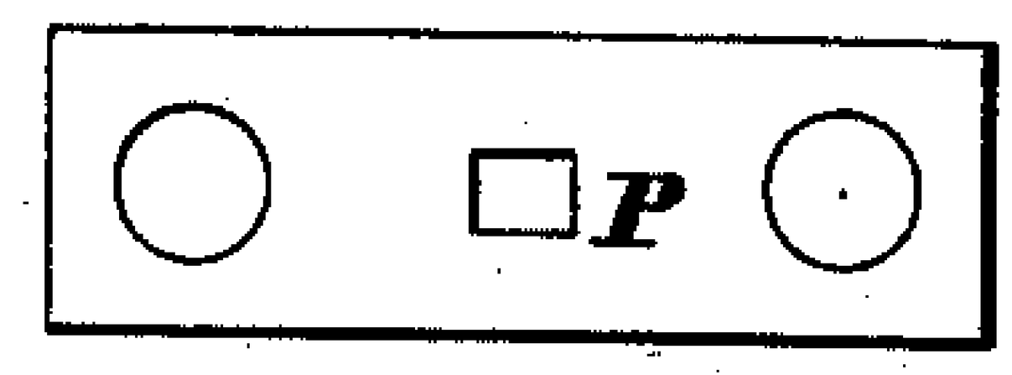
(No Model.)

H. K. NEEDHAM.

REFLECTOR BRACKET.

No. 261,948. Patented Aug. 1, 1882.

Fig. 4.



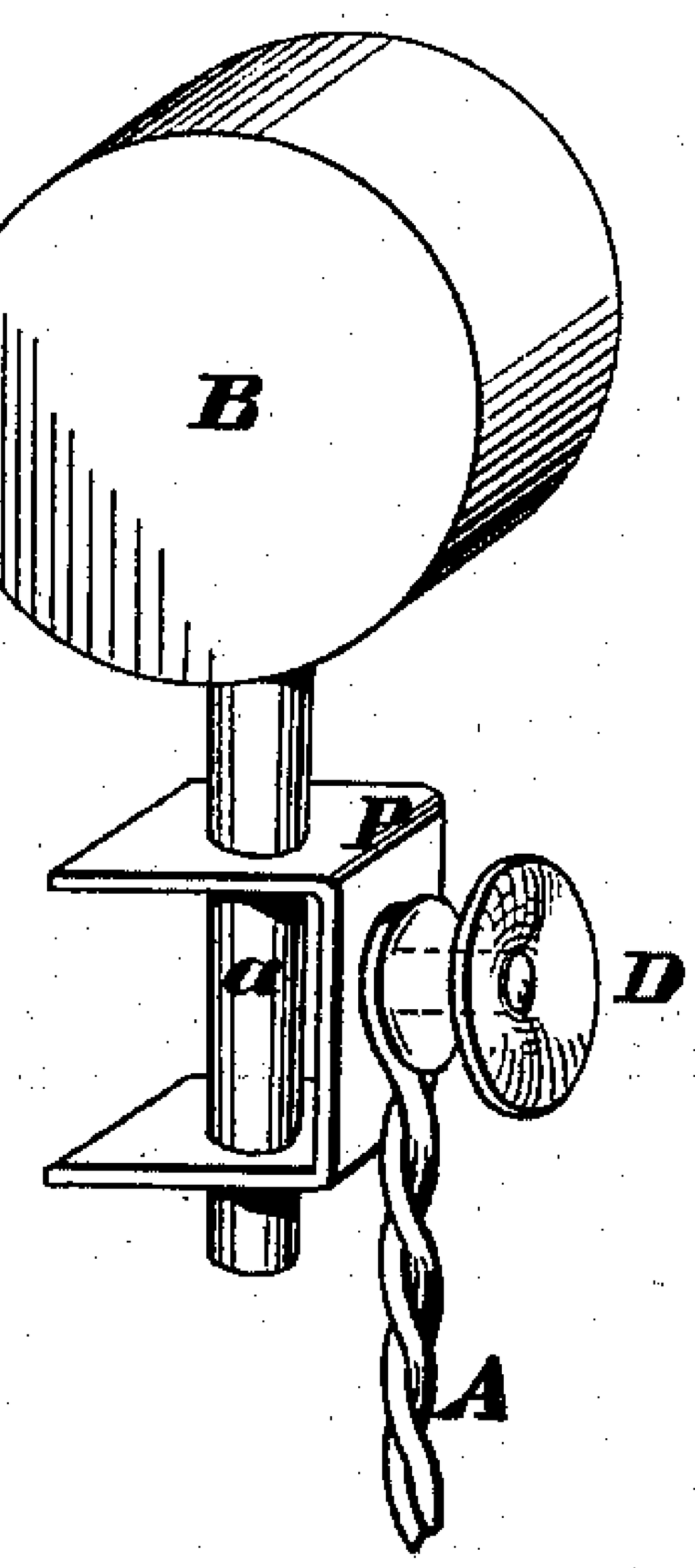


Fig. 2.

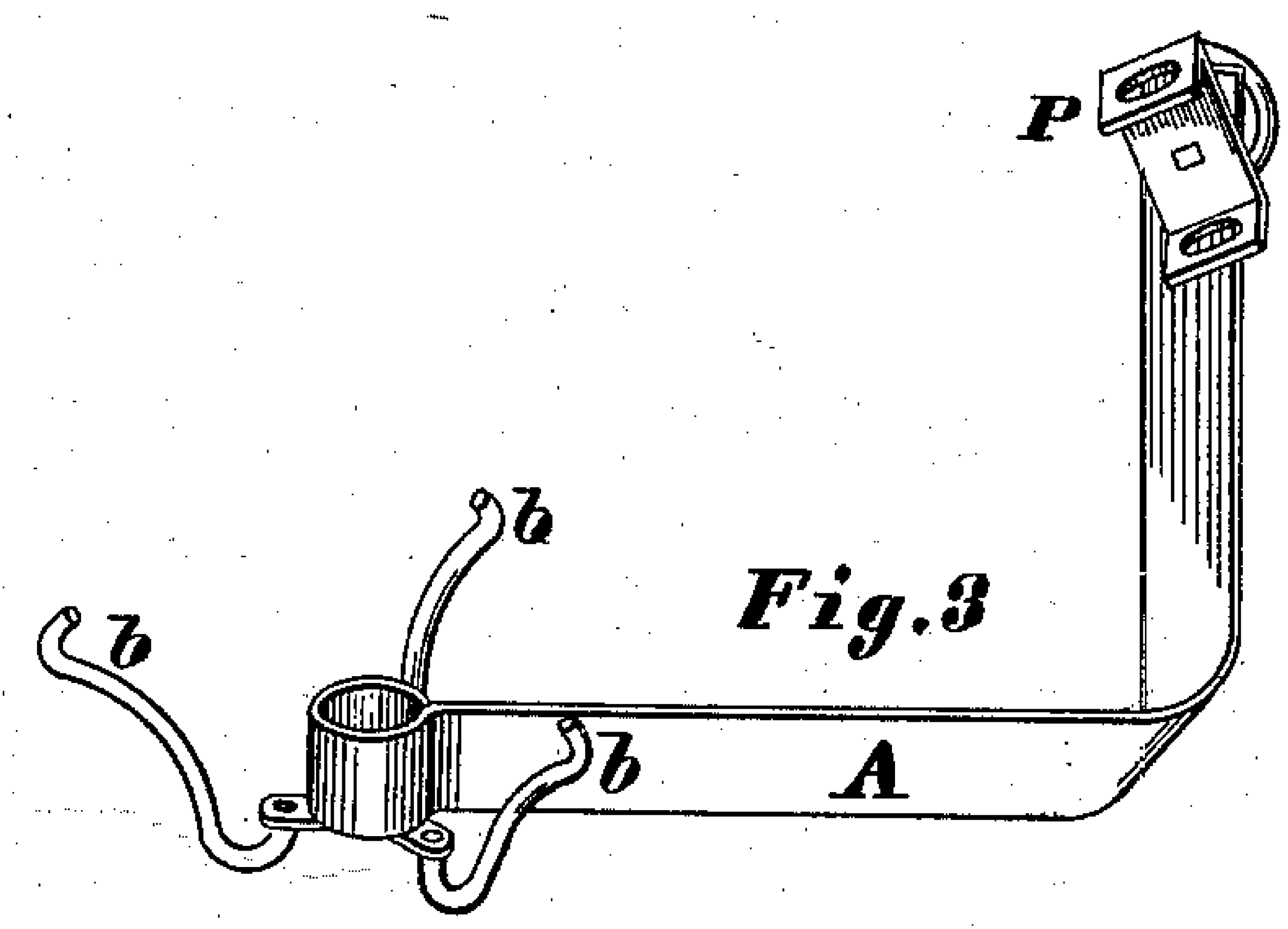
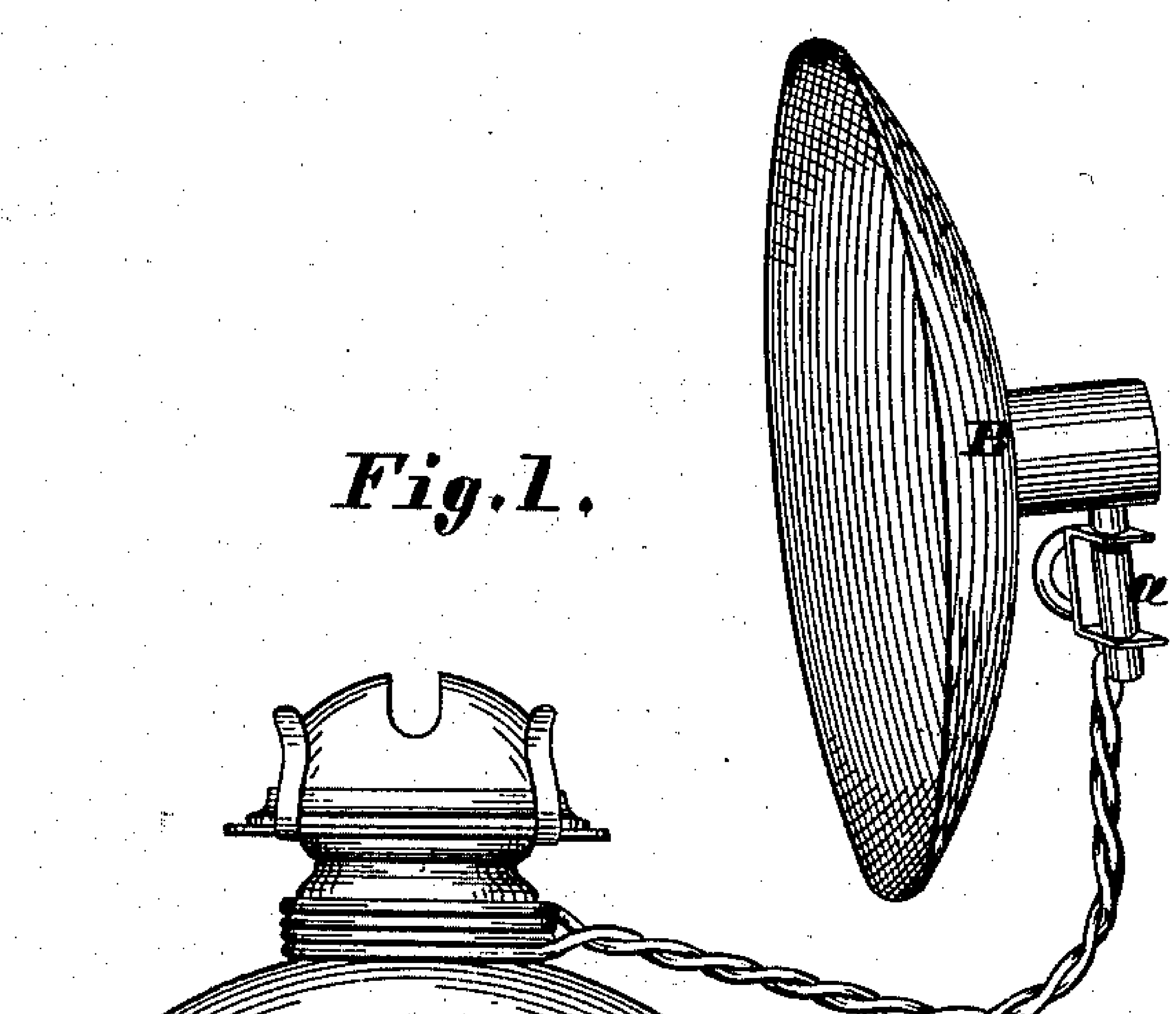


Fig. 3

Fig. 1.



A

Attest.

Thurston P. Dyer,

John B. Quay.

Inventor:

Hiram K. Needham

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

HIRAM K. NEEDHAM, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE MISSOURI GLASS COMPANY, OF SAME PLACE.

REFLECTOR-BRACKET.

SPECIFICATION forming part of Letters Patent No. 261,948, dated August 1, 1882.

Application filed April 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, HIRAM K. NEEDHAM, a citizen of the United States, residing at the city of St. Louis, in the county of St. Louis and State of Missouri, have invented new and useful Improvements in Reflector-Brackets, of which invention the following is a full, clear, and exact specification.

My invention relates to reflector-brackets for lamp and gas burners in which an arm provided with a collar surrounding the neck of a lamp or a gas burner supports a reflector; and the object of my improvements is to provide a cheap means of utilizing to the best advantage the ordinary silvered glass reflector.

The following is illustrative of my means of obtaining the object in view, reference being made to the accompanying drawings, in which—

Figure 1 is a view showing my bracket-arm (made of wire) attached to the neck of a lamp and supporting a reflector. Fig. 2 is a detailed view, in perspective, of the universal coupling used to connect the reflector by its vertical pivot with the bracket-arm. Fig. 3 is a view in perspective of the bracket-arm (made of sheet metal) in combination with the universal coupling and a globe-holder; and Fig. 4 shows the form of the perforated sheet-metal strip used in the construction of the universal coupling before it is bent, as below described.

The reflector-arm A is made of wire or sheet metal, and provided with a ring or collar varying in size to fit loosely around the different sizes of lamp-necks or a gas-burner. When constructed of wire the collar is made of a series of loops, from which the wire is twisted to form the supporting-arm A, which may curve from a horizontal or a downward position from its bearing to an upright position at proper distance from the burner, for the support of the reflector B. When made of sheet metal the collar is formed by turning the end to a ring or circle corresponding in its size with the neck of a lamp or a gas-burner, as in Fig. 3.

The bracket-arm A, when constructed of wire, is provided with a small loop at its upper extremity, through which the pivot-screw of the universal coupling, Fig. 2, passes to form the connection of the arm A and reflector B. If made of sheet metal, a perforation is made near the upper extremity for the same purpose.

It will readily be seen that the arm A, fitting loosely on the neck of a lamp or a gas-burner, can be turned to any side of the flame or entirely around it, and that by the universal coupling, Fig. 2, the rays of light from the reflector may be thrown on a plane above or below that of the flame.

The universal coupling, Fig. 2, is made of a strip of sheet metal, Fig. 4, with round holes near each end for the reception of the stem or pivot *a* of the reflector B, and a square hole in its center, in which is secured the pivot-screw for locking it to the arm A. This strip of sheet metal is bent to form three sides of a square, as shown in Fig. 2, and, together with the pivot-screw passing horizontally through the top of the bracket-arm A and the lock-nut D, constitutes the universal coupling. I call this device a "universal coupling" from the fact that the sheet-metal piece P, being pivoted on the screw passing horizontally through the arm A, and the reflector stem or pivot *a*, passing vertically through the holes in the sheet-metal strip P, allow the face of the reflector B to be elevated or depressed or deflected to either side without disturbing the relative positions of the lamp and arm. The pivot-screw attaching the arm A and sheet-metal strip P is shown by dotted lines through the lock-nut D.

In Fig. 3 are shown a number of wires, *b b b*, secured to the collar of the arm A, for the support of a crystal globe for the protection of the flame in positions exposed to strong currents of air.

The arm A may be made available for the support of a reflector without the use of the universal coupling described by letting its upper extremity perform the function of a pivot,

upon which the tubular stem *a* of the reflector B may turn to allow its face to be deflected sidewise.

Having thus fully described my invention, what I claim, and wish to secure by Letters Patent, is—

The combination of the arm A with the base of an illuminating-burner and the described coupling P D and reflector B, substantially as and for the purposes set forth.

HIRAM K. NEEDHAM.

Witnesses:

TRUSTEN P. DYER,

JOHN B. QUAY.