(No Model.)

W. H. STAATS.

REVOLVING PRISMATIC SHADE.

No. 252,907. Patented Jan. 31, 1882.

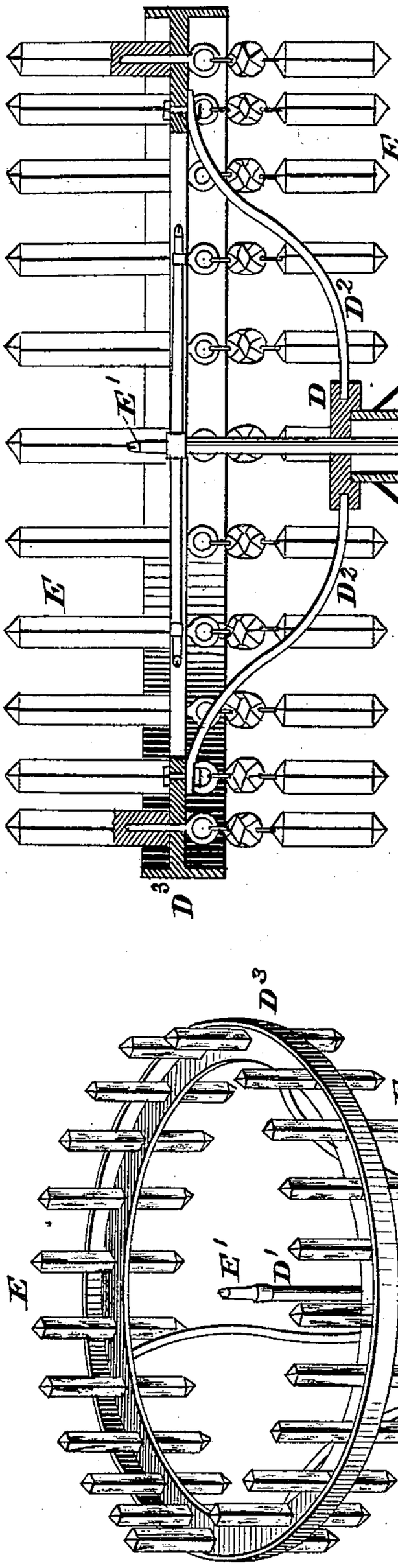

Fig. 2.

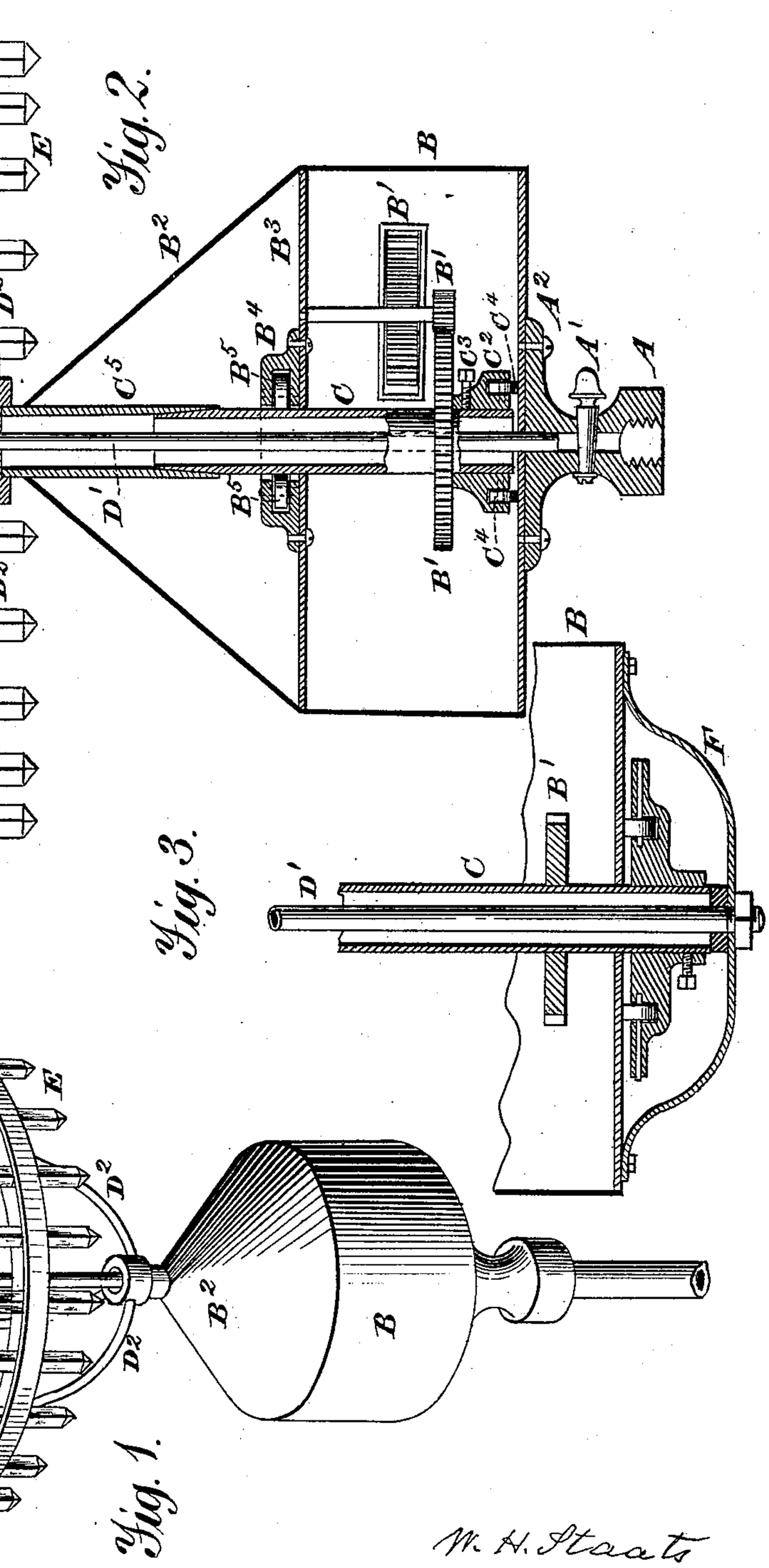

Fig. 3.

Fig. 1.

Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM H. STAATS, OF CHICAGO, ILLINOIS.

REVOLVING PRISMATIC SHADE.

SPECIFICATION forming part of Letters Patent No. 252,907, dated January 31, 1882.

Application filed June 20, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. STAATS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Revolving Prismatic Shades; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to prismatic shades for use in the windows of stores, dwellings, places of amusement, and other places where a parti-colored revolving shade is desirable; and the object of my invention is to provide a revolving shade which shall be provided with fixed or fixed and pendent prisms of glass of various colors, or of pieces of glass of other forms, in order that when the shade is revolved it may present to view in succession rays of light of different colors, and thus attract attention; and a further object of my invention is to combine the revolving party-colored shade with suitable mechanism for rotating it, and with a central pipe upon the upper end of which there is attached a gas-burner. I attain these objects by the devices illustrated in the accompanying drawings, in which—

Figure 1 is an elevation showing a revolving ring in which is placed a series of glass bars or prisms, braces for connecting it to a drum or case in which the actuating mechanism is located, and a gas pipe and burner. Fig. 2 is a sectional elevation, showing the parts above enumerated, the glass bars or prisms having pendants attached to them, and in addition the mechanism for rotating the shade; and Fig. 3 shows a modified form of a part of the rotating mechanism.

Similar letters refer to like parts in all of the figures.

In constructing devices of this character I provide a socket, A, the lower end of which is provided with a chamber in which there is formed a female screw, the object of which is to provide the means for attaching the shade to a gas-pipe. This socket is also provided with a cock or valve, A′, for controlling the flow of gas to the burner, and for shutting it off from it.

Upon the upper end of the socket there is formed a flange, A^2, through which pass screws by which it is secured to the drum or case B, which contains the driving mechanism. This drum may be made of sheet metal or of any other suitable substance, and is to be of such dimensions as to enable it to contain the driving mechanism B′, which may consis of any form of gear-wheels and springs that will give the required movements, the works of an octagon eight-day clock being preferable, with an attachment thereto for stopping the rotation of the shade when desired; but as I make no claim to any particular form of driving mechanism a more particular description thereof is not deemed necessary.

The drum or case B, above alluded to, I prefer to make with a conical upper portion, B^2, and to plate its outer surface with silver or some other material that will cause it to be a good reflector of the rays of light that strike it. Across the drum or case, at the point where its vertical portion joins the conical one, there is placed a head, B^3, to which there is secured, by screws or otherwise, a socket, B^4, which has an aperture at its center for the passage of a shaft, soon to be described. This socket has placed in it three or more anti-friction rollers, B^5 B^5, the distance between their peripheries being just sufficient to allow of the passage of a shaft, C, the lower end of which is secured within a socket, C^2, by means of a set-screw, C^3.

In the under surface of the socket C^2 there are placed three or more wheels, C^4, which rest and move upon the inner surface of the lower head of the case B. Upon these wheels the whole weight of the shaft C and the parts connected therewith rest, their office being to reduce to a minimum the power required to rotate the shade.

The shaft C, above described, is supplemented by a removable section, C^5, the lower end of which has its interior surface bored out in the form of a section of an inverted cone, and is made to fit upon the tapered upper end of the section C of the shaft, the object being to provide means of readily removing the shade and the upper section of the shaft when desirable.

To the upper end of the section C^5 there is

secured a disk, D, which has at its center an aperture for the passage of a gas-pipe, D′, as shown in Fig. 2. To this disk braces or arms D^2 are secured, which are curved upward and extend to and are connected with a ring, D^3, to which the pendants are secured. The prisms E are placed and secured in mortises formed in and through the annular or flat part of ring D^3, or they may be secured in any other proper manner to hold them firmly in concentric and upright positions. When pendants are employed the fixed prisms are above the annular ring and the pendants are secured to the prisms by eyebolts, which pass upward through the ring and into the prisms, or by any other known way of securing them, such as casting the glass prisms around a screw-nut and having a screw-thread cut on the eyebolt to which the pendants are hung, when the bolt can be screwed through the ring into the nut in the prism, and thus be firmly secured thereto, said ring and its glass prisms revolving with the shaft C C^5. The ring D^3 may be of the form shown in the drawings, or it may be octagonal. These prisms or pieces of glass are designated by the letter E, and may be of the form shown in Figs. 1 or 2, or of any other form that will best reflect the rays of light from the gas-burner E′ placed on the upper end of the gas-pipe D′, or it may be from two or more burners placed upon branch pipes extending from said pipe D′, as shown in Fig. 2. The prisms or pieces of glass are to be of different colors, and may be varied in this respect according to the tastes of the constructor, or according to circumstances.

In Fig. 3 there is shown a modification of the device which is calculated to provide for suspending the shade upon the gas-pipe in such a manner as to permit it to rotate thereon. In this arrangement the parts will be constructed substantially as above described, and will be rotated in a similar manner, the changes required being only such as relate to suspending the moving parts upon the gas-pipe, the upper end of which will have to be firmly fixed to the ceiling of the room, or to some other support, and have a nut placed upon its lower end for a curved bar of metal, F, to rest and rotate upon, the lower end of the shaft C resting and turning upon said bar while the anti-friction rollers come in contact with the under surface of the drum or case B.

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

1. A revolving shade composed of party and various colored prisms or prisms and pendants E, revolved by any suitable mechanism and combined with a gas-burner or other light-giving device, substantially as described.

2. The combination, in a party-colored revolving shade, of the ring D^3, for carrying the prisms or pendants, arms for connecting it to the driving-shaft, a sectional driving-shaft, C C^5, its supporting wheels or rollers B^5 and C^4, and the driving mechanism, the parts being arranged for joint operation substantially as set forth, and for the purpose described.

3. The combination of the drum or case B, having upon its upper surface a conical reflecting-surface, B^2, the sectional driving-shaft C C^5, and mechanism for driving the same, substantially in the manner and for the purpose set forth.

4. The combination of the ring D^3, and the party-colored glass prisms E, the parts being constructed as described and arranged to be operated by mechanism substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. STAATS.

Witnesses:
THOMAS F. MCNULTY,
JOHN P. JOHNSON.