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PATENTED AUG. 6, 1907.

J. I. ROBIN.
INCANDESCENT GAS BURNER.
APPLICATION FILED FEB. 27, 1906.

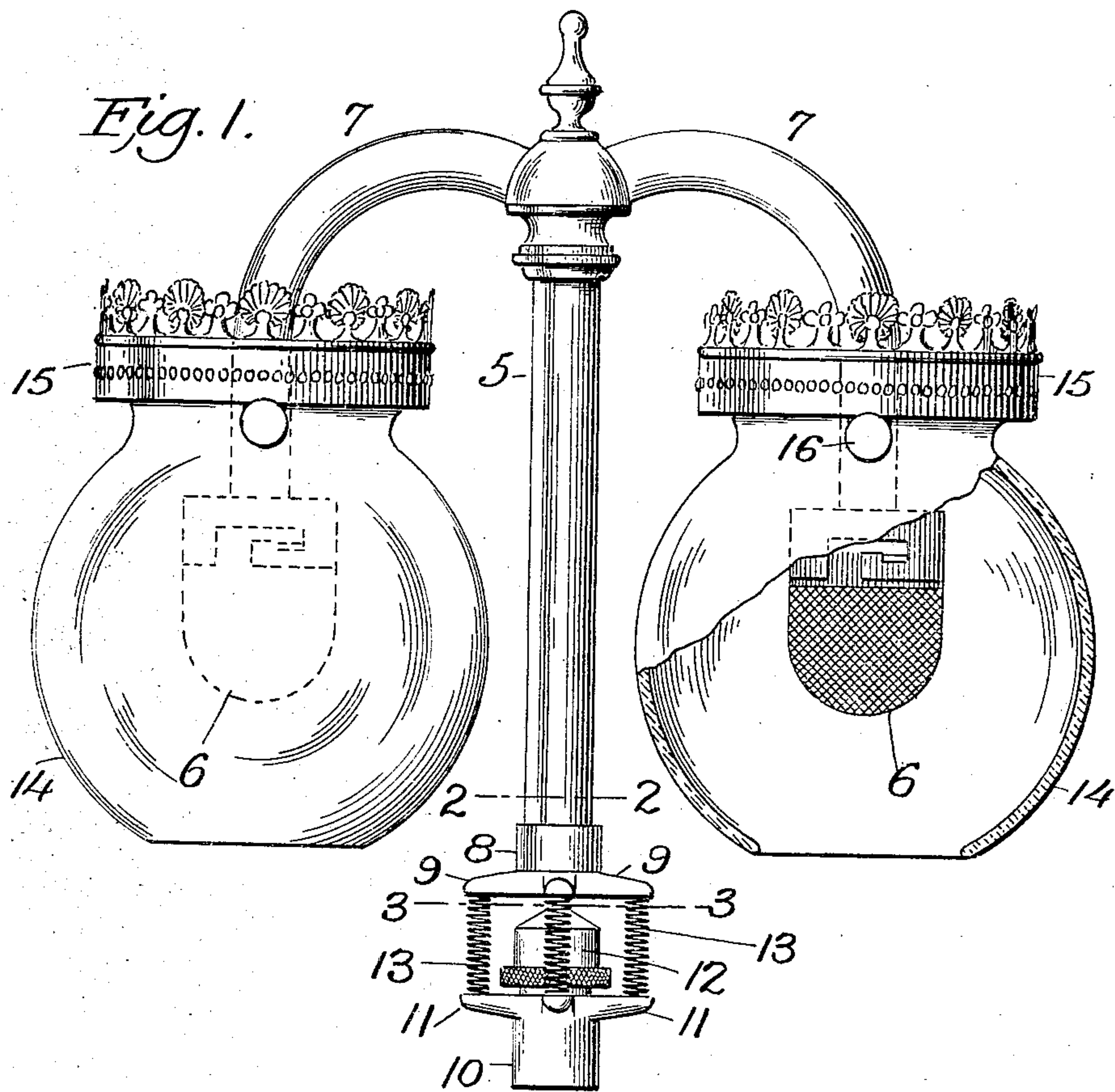


Fig. 2.

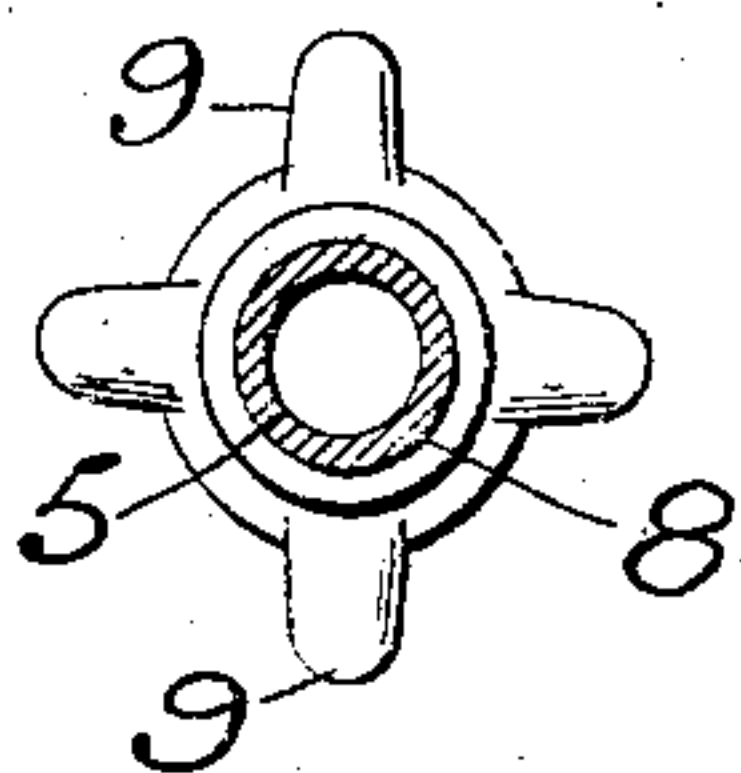
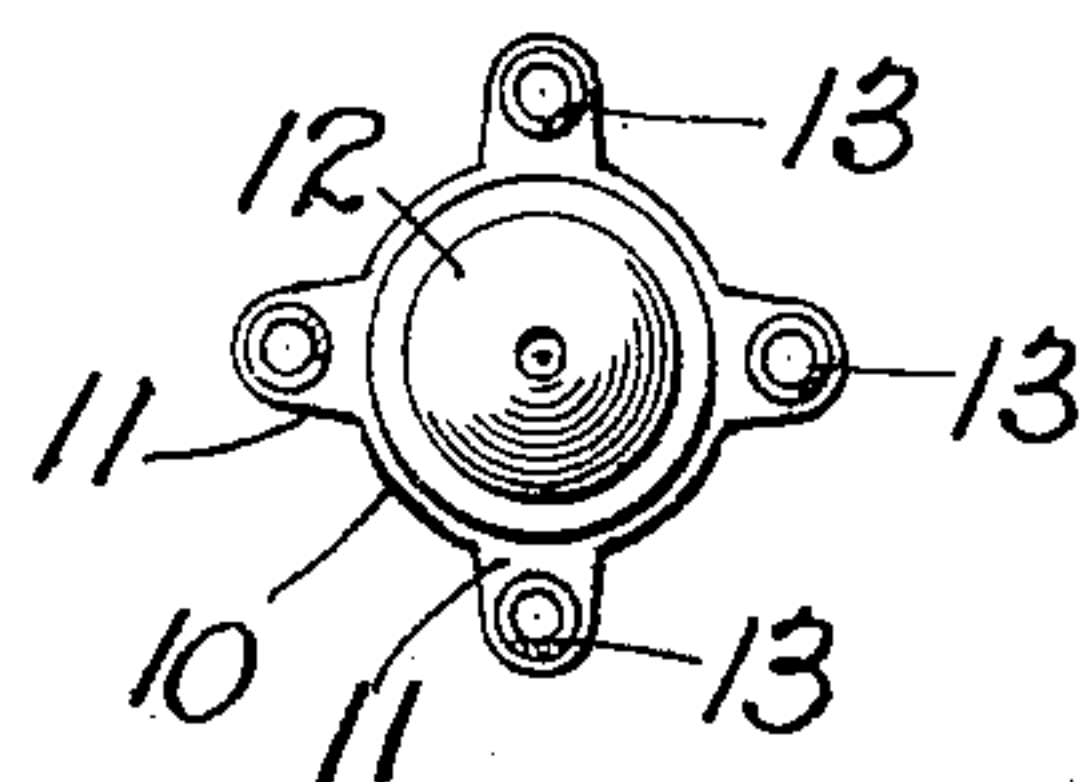


Fig. 3.



WITNESSES:

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INCANDESCENT GAS-BURNER.

No. 862,759.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed February 27, 1906. Serial No. 303,193.

To all whom it may concern:

Be it known that I, JACOB I. ROBIN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Incandescent Gas-Burners, of which the following is a specification.

My invention relates to incandescent gas-burners and more particularly to a safety attachment connected with the burner which is adapted to withstand sudden shocks and jars which are apt to destroy the mantle after it has been burned and in its operative condition. These and other objects of my invention are more fully described in the following specification and set forth in the appended claims.

In the drawings accompanying the specification and forming a part thereof, like reference characters are used to designate the same parts in the various figures; and Figure 1 is a side elevation of an incandescent gas-burner showing my invention applied thereto. Fig. 2 is a cross section on the line 2—2 of Fig. 1, and Fig. 3 is a cross section on the line 3—3 of Fig. 1.

In the use of an incandescent mantle on a gas-burner the most detrimental feature is its liability to break and crack after it has been burned and is in condition for practical use. Various means have been resorted to to overcome this objection without favorable results and the burner has been mounted on springs or other resilient means but these are all open to objections inasmuch as while they are thus mounted on the spring there must be some means used to restrict the play of the burner when subjected to heavy vibrations. These restricting means must necessarily be resilient and when the burner through some accident is thrown to one side the restricting means is apt to stop its movement too suddenly and the consequence is that as much damage is done to the mantle as if it were without the resilient base. It is with this intention to overcome not only the sudden jar originally producing the vibration but the final restraint which is placed upon the movement set up by the vibration.

In Fig. 1 are shown an incandescent gas-bracket 5 carrying the burner 6 at the lower end of the lateral arm 7 the bracket 5 carrying at its lower end a sleeve 8 having several lateral arms 9 four of these arms being here used but it is obvious that more or less may be used in order to produce the results which I am seeking to attain but it must be borne in mind that there are at least two of these arms on the sleeve 8. On the lower section of the burner is a similar sleeve 10 carrying corresponding arms 11 radiating from same and adapted to occupy the position directly beneath the arms 9. This sleeve 10 carries an adjustable jet 12 which may be so adjusted in the sleeve as to provide

for a greater or less discharge of gas into the pipe 5 to supply the mantles 6. This is practically a Bunsen burner and as the gas passes out of the jet and into the pipe above, it carries with it a certain amount of air which freely mingles with it in said passage.

The lateral arms 9 and 11 have attached to them springs 13 which may be fitted on studs at the outer ends and between the corresponding upper and lower arms and are adapted to aline these arms and cause them to always remain in their vertical relationship towards each other. In these springs there is a certain amount of tension and compression possible so that if the bracket is thrown out of a perpendicular position by a blow or shock from the right hand side; for instance, the right hand spring is put under tension while the left-hand spring is under compression the two remaining springs are neutral and while the right hand spring tends to draw the bracket back to its original or normal position the left-hand spring likewise acts to perform this operation also. The springs under compression also perform the functions of cushions and relieve the burners of danger of destruction by coming to a sudden stop with a jar and jolt.

Various details of construction may be resorted to in carrying out this invention and without departing from the idea of coöperating springs uniting the upper and lower sections of a Bunsen burner at the point where the air is admitted to the burner and serving to equalize their tensile and compressive qualities to maintain the stem of the burner in a perpendicular position and to restore same to its normal position when subjected to a sudden jar or blow.

The mantle 6 may be surrounded by a globe 14 carried by a socket 15 on the branch arms 7 and held therein by the thumb-screws 16.

It is obvious that the springs 13 need not be spiral but that flat springs may be used or any resilient means be resorted to.

What I claim as new and desire to secure by Letters Patent is:—

The herein described gas burner consisting of a supply pipe, a sleeve secured to said pipe and provided with radial arms, an adjustable jet having a tapered and pointed upper end, said jet having an opening in the apex thereof and disposed in alinement with said supply pipe, a sleeve in which said jet is mounted, said sleeve having radial arms disposed in alinement with the radial arms of the first mentioned sleeve, spiral springs interposed between the arms of both sleeves, and a milled nut on the jet for adjusting the same, substantially as described.

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

JACOB I. ROBIN.

Witnesses:

JAMES F. DUHAMEL,
HARRY C. HEBIG.