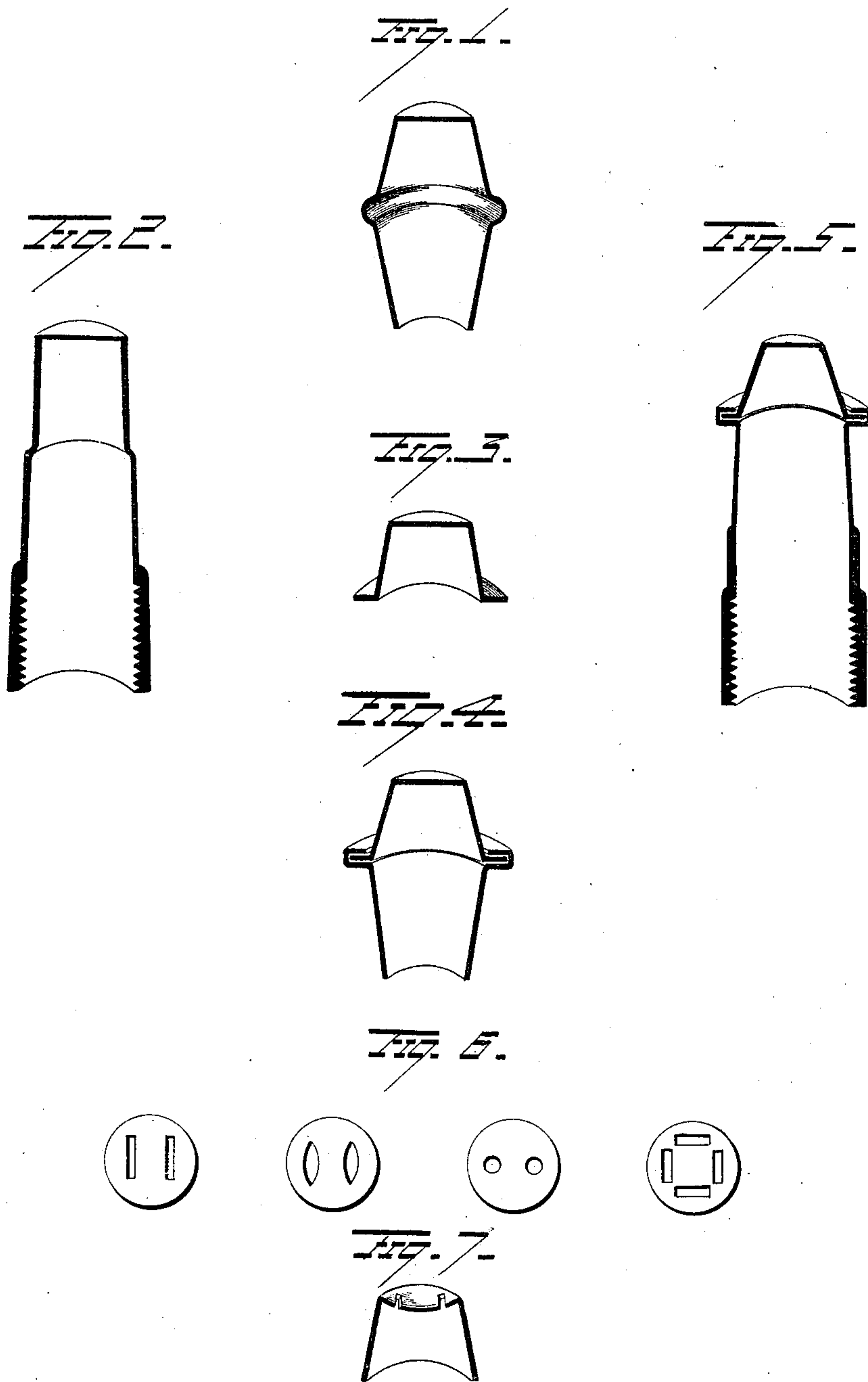


(No Model.)

W. M. JACKSON.
GAS TIP AND PILLAR.

No. 381,380.

Patented Apr. 17, 1888.



WITNESSES
John C. Jones,
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UNITED STATES PATENT OFFICE.

WALTER M. JACKSON, OF NEW YORK, N. Y., ASSIGNOR TO THE GAS CONSUMERS BENEFIT COMPANY OF THE UNITED STATES, OF SAME PLACE.

GAS TIP AND PILLAR.

SPECIFICATION forming part of Letters Patent No. 381,380, dated April 17, 1888.

Application filed December 18, 1886. Serial No. 221,979. (No model.)

To all whom it may concern:

Be it known that I, WALTER M. JACKSON, of New York, in the county of New York and State of New York, have invented certain
5 new and useful Improvements in Gas Tips and Pillars or the Outlets of Gas-Burners; 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
10 which it appertains to make and use the same.

My invention relates to gas tips and pillars or the outlets of gas-burners, and has for its object to provide an improved method and devices by which I am enabled to consume the
15 gas with improved combustion and at the same time secure superior economy in the construction of parts.

The following specification and accompanying drawings will enable those skilled in the
20 art to understand, construct, and use the invention.

I construct a detachable tip, Figure 1, or a closed pillar, Fig. 2, by casting or turning the same, or I draw, press, cut, spin, or stamp the
25 same from any suitable ductile metal, or I make the head of a tip, Fig. 3, from such metal and by such means and secure the same to the shank of said tip, Fig. 4, or to the extremity of an open pillar, Fig. 5. It is now desirable to have
30 gas-flames emerge from the apex of the tip or pillar-head in a round broad flame in such a manner that great area of surface will be exposed to the atmosphere, and to accomplish

this object cheaply and effectively I place the head of the tip or top of the pillar, both sur- 35
faces being flat or externally convex, in a suitable die, cut or punch through such surface holes or slots, round, diagonal, elliptical, or otherwise, as shown in Fig. 6, this figure being a bird's eye view of such surface. After 40
creating such outlets I countersink or depress such surface, (shown in Fig. 7,) by which means I change the plane of the perforations, throwing them toward each other in such a
45 manner that the gas upon issuing from the perforations is intersected upon itself, and thus causes flames of desired form and shape.

Having fully described my invention, what I claim as new, and desire to secure by Letters
50 Patent, is—

The herein described method of forming gas-outlets, consisting, essentially, in cutting or punching a series of openings through the flat or externally-convex surface of the top of a closed pillar or tip and subsequently changing 55
the directions or axes of said openings by depressing or countersinking the top of the pillar or tip, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing wit- 60
nesses.

WALTER M. JACKSON.

Witnesses:

JNO. E. JONES,
W. C. DUVALL.