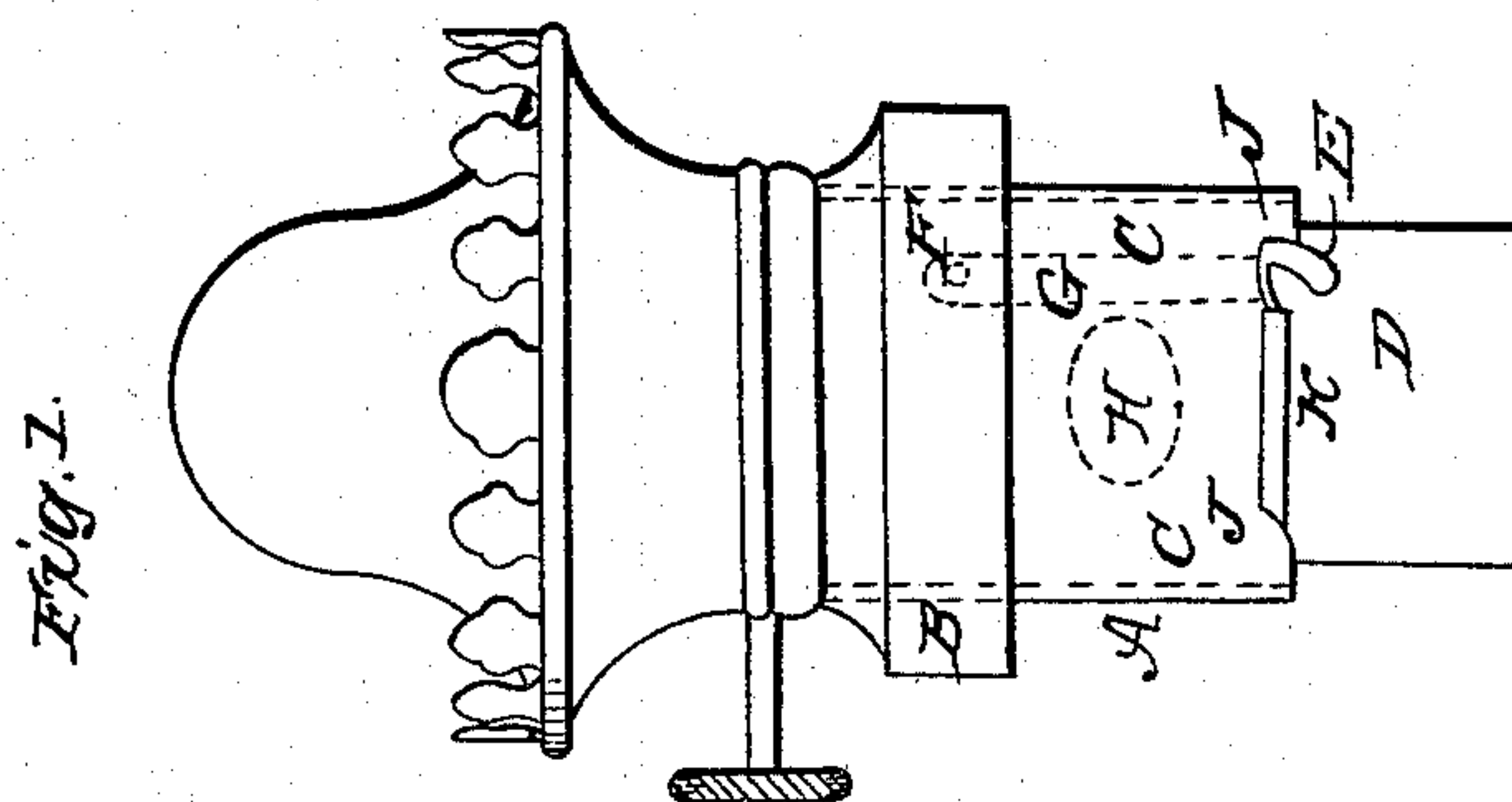
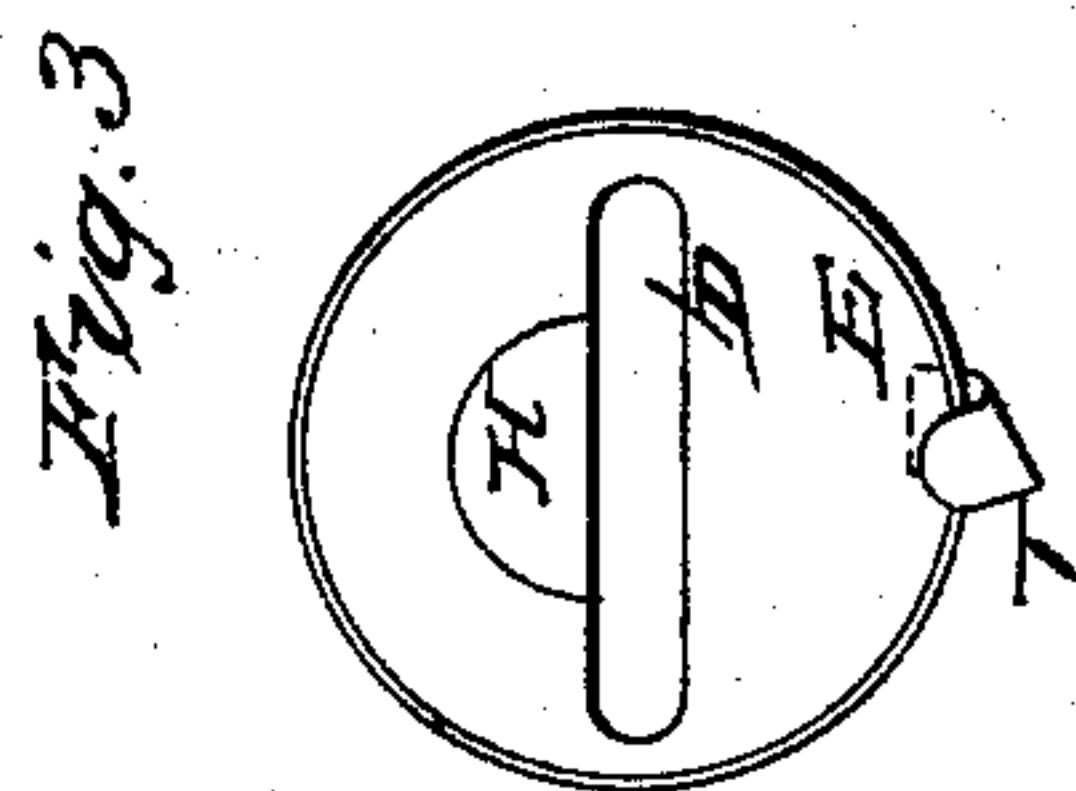
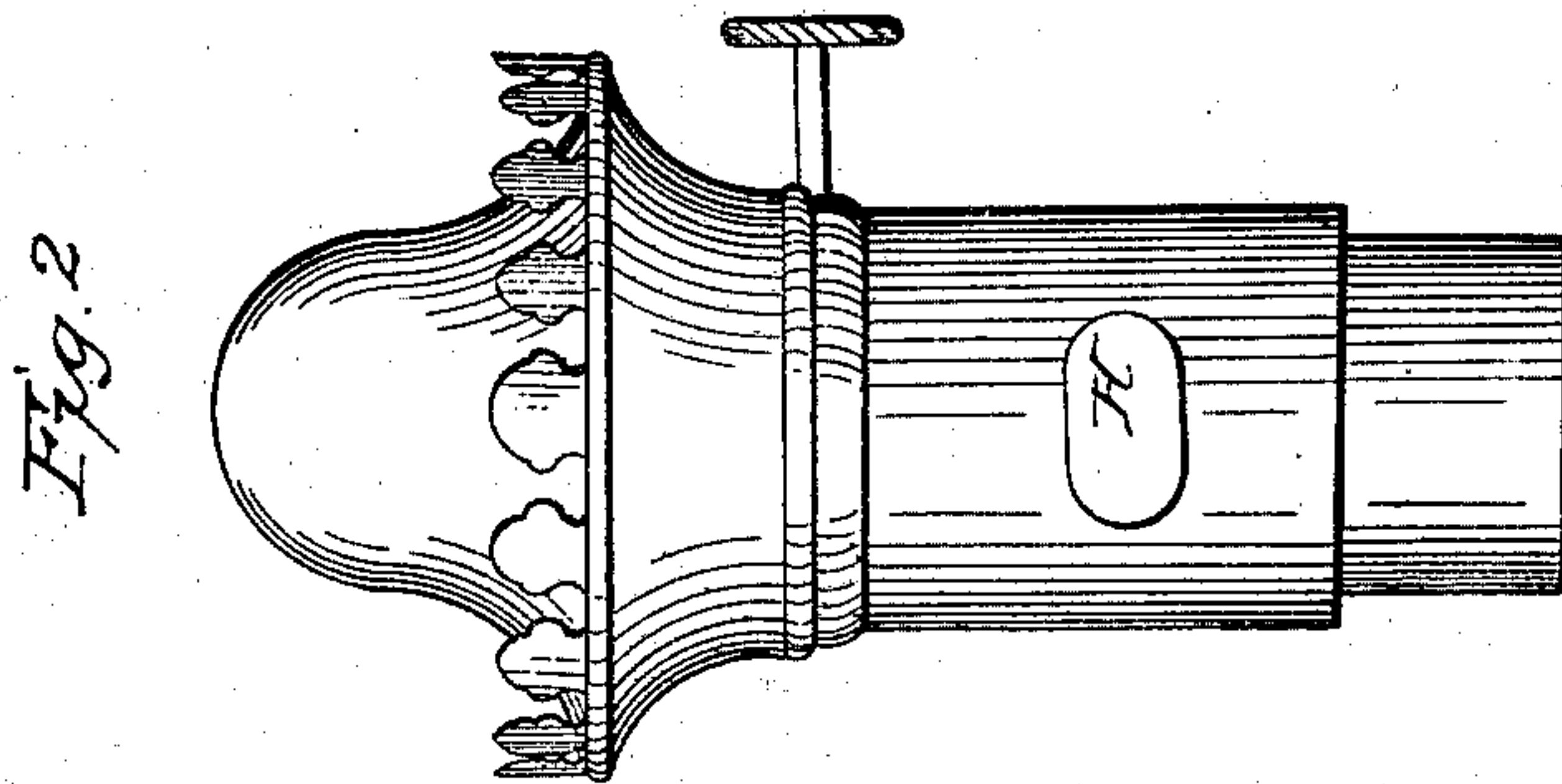


H. & J. SANGSTER.

Kerosene Oil Burner.

No. 48,450.

Patented June 27, 1865.



Witnesses  
Amos Sangster  
Nicholas Menard

Inventors  
Hugh Sangster  
James Sangster

# UNITED STATES PATENT OFFICE.

HUGH SANGSTER AND JAMES SANGSTER, OF BUFFALO, NEW YORK.

## IMPROVEMENT IN KEROSENE-OIL BURNERS.

Specification forming part of Letters Patent No. 48,450, dated June 27, 1865.

*To all whom it may concern:*

Be it known that we, HUGH SANGSTER and JAMES SANGSTER, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Kerosene-Oil Burners; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of our invention consists in constructing a burner with a spring at its base, so made that the burner may be connected to the collar by pressing it down into it and then turning it partly around.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

We construct our burners of brass, as being the most suitable material.

Figure 1 represents a side elevation of the burner complete, with the collar and inside case or tube, A, connected thereto, also the case forming the lower part of the burner, to which the spring is attached. Fig. 3 is a view of the bottom of the burner, showing the wick-tube and the spring.

The upper part of the burner is made in the usual way, and need not be described here.

In Fig. 1, B is the collar, A the case or tube, attached to and forming a part of the collar. The dotted lines C and C' represent the lower part of the burner, to which is attached the

spring. D is the wick-tube, E the spring. The dotted lines G show the shape of the spring inside of the case C C', and F is the point where it is fastened.

In Fig. 3, I is a bottom view of the spring E. The burner is fastened to the collar by pressing it down into it and then turning it until the spring E passes by the corners J or J' and into the notch K at the bottom of the collar, when it springs out over the bottom of said collar and holds it firmly in its place. It is released by turning it back past the notch or point J, which forces the spring in, thus allowing the burner to be lifted out of the collar.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. Constructing the spring E so that it connects the burner to the collar B by pressing it down into said collar and turning it around until it springs over either corner J or J' into the notch K, thus bringing the spring under the lower edge of the collar.

2. In so constructing the lower part, A, of the collar B that when the burner is turned so that the spring passes the corner J it is forced into the case A and allows the burner to be drawn out easily.

HUGH SANGSTER.  
JAMES SANGSTER.

Witnesses:

AMOS W. SANGSTER,  
NICHOLAS A. MENAAR.