

C. F. RUKES.  
HEAT REGULATOR.  
APPLICATION FILED MAY 22, 1908.

912,175.

Patented Feb. 9, 1909.

Fig. 2.

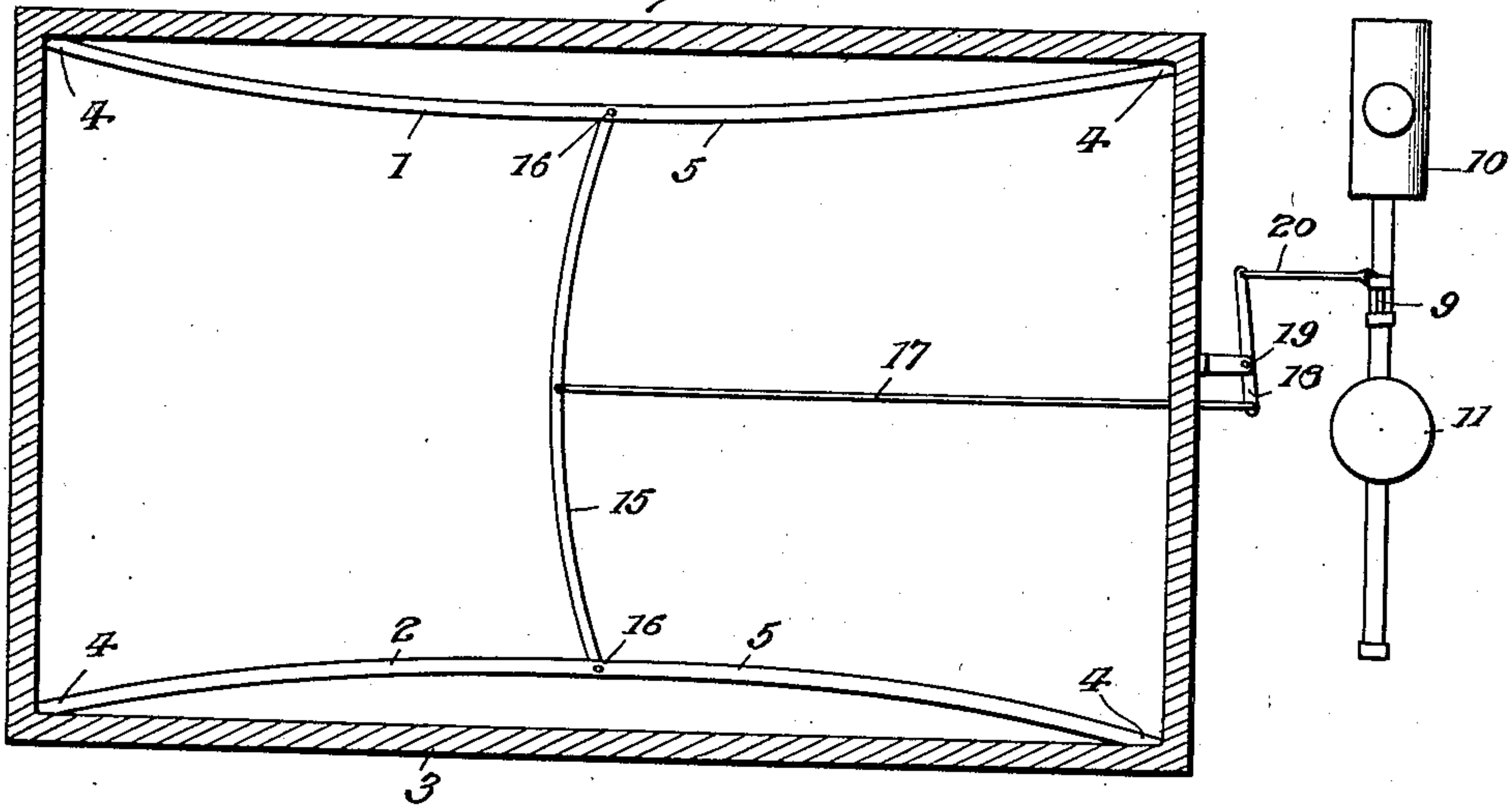


Fig. 1.

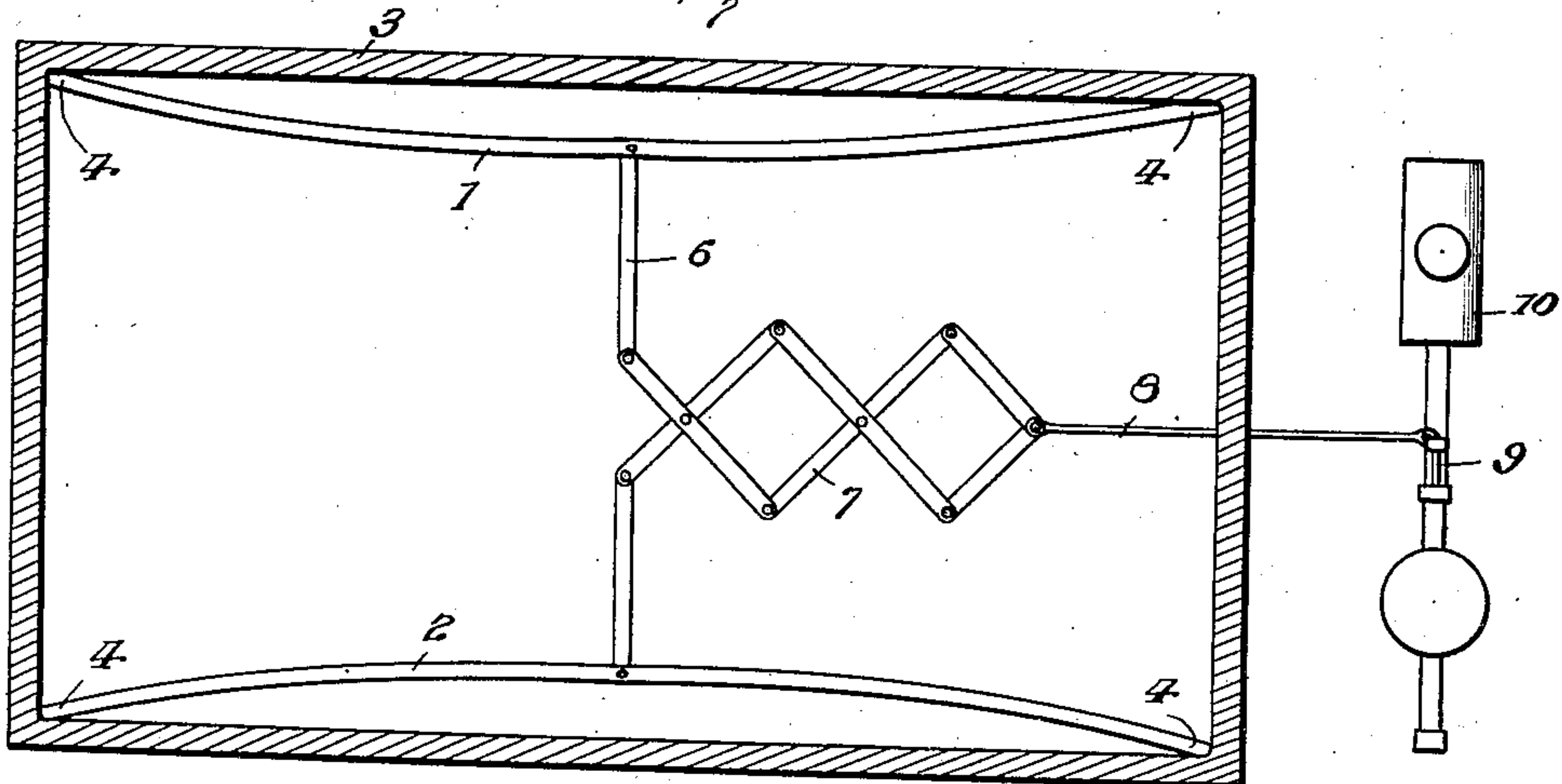
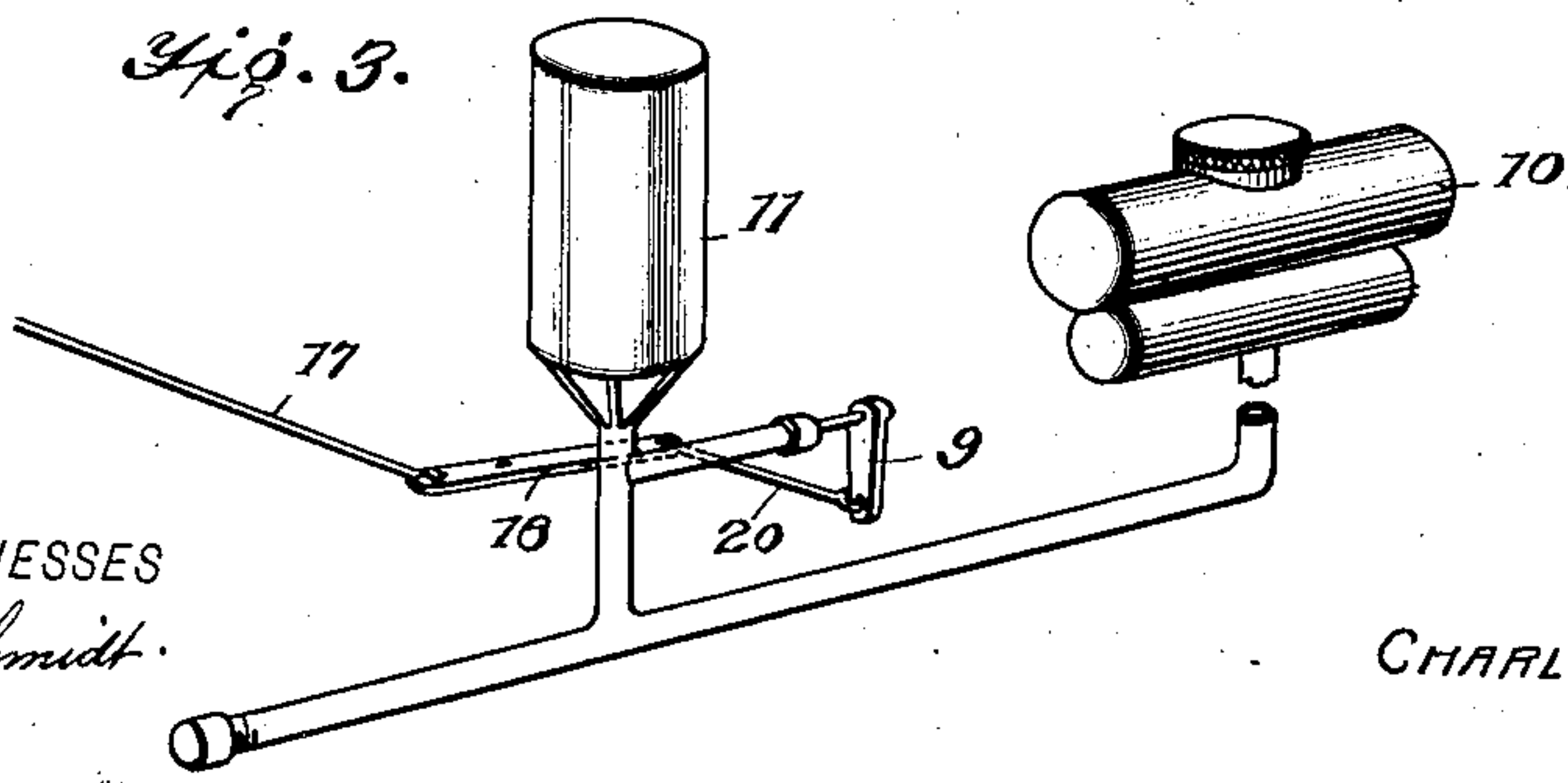


Fig. 3.



WITNESSES

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# UNITED STATES PATENT OFFICE.

CHARLES FREMONT RUKES, OF SPRINGFIELD, MISSOURI.

## HEAT-REGULATOR.

No. 912,175.

Specification of Letters Patent.

Patented Feb. 9, 1909.

Application filed May 22, 1908. Serial No. 434,255.

*To all whom it may concern:*

Be it known that I, CHARLES FREMONT RUKES, a citizen of the United States, and resident of Springfield, in the county of Greene and State of Missouri, have invented certain new and useful Improvements in Heat-Regulators, of which the following is a specification.

My invention is an improvement in heat regulators for incubators, etc., and consists in certain novel constructions and combinations of parts hereinafter described and claimed.

Referring to the drawings forming a part hereof Figure 1 is a horizontal sectional view of the regulator applied to an incubator, the incubator being shown in sections. Fig. 2 is a similar view of a modified form, and Fig. 3 is a perspective view of the oil stove showing the method of connecting the regulator.

The present embodiment of my invention comprises a pair of bars 1, 2, of suitable material, preferably of hard rubber or zinc, which are arranged in the incubator 4 as shown the said bars 1 and 2 being secured by each end as at 4, and bowing outwardly at their middle as at 5. Each of the bars has connected with its center a link 6, and to the inner ends of the links is connected a lazytongs 7, and to the free end of the lazytongs is connected one end of a link 8, the other end being connected with the lever 9, of an oil burner. The burner shown is a blue flame, comprising the fuel tank 10, the burner 11, and the lever 9 controlling the passage of oil to the burner.

It will be evident from the description, that when the temperature in the burner exceeds a predetermined value, the bars 1 will expand bowing further outward, thus extending the lazytongs which will move the valve lever, decreasing the supply of fuel. Should the incubator become too cool, the bars will contract thus shortening the lazytongs and move the valve lever in the opposite direction, to increase the supply of fuel.

In Fig. 2, is shown a different method of connecting the bars 1 and 2 with the valve. A second bar 15 is arranged between the bars 1 and 2, the said bar 15 having its end connected with the centers of the bars 1 and 2, as at 16, and a link 17 is connected with the center of the bar 15, and with one arm 18 of a lever pivoted as at 19 on the incubator, the other end being connected by a link 20 with the valve lever 9 of the burner.

The operation of the above described form is similar to that of the other form, the movement of the valve lever being attained by the further bowing or lengthening of the bar 15.

In the ordinary form of regulator, a damper is raised or lowered with respect to the flue of the burner, which will regulate the heater within certain limits, but such devices are not applicable to blue flame heaters, wherein it is necessary to cut off or enlarge the supply of fuel to properly control the heat.

I claim:

1. In a device of the class described, a blue flame burner, and a heat regulator therefor, comprising a pair of bars having their ends fixed and arched towards each other at their middle, links connected with the centers of the bars, a lazytongs connected with the free ends of the links, and a link connecting the lazytongs with the valve of the burner.

2. The combination with the burner, the fuel tank, and a valve for controlling the supply of fuel to the burner, of a regulator comprising a pair of bars having their ends fixed and arched toward each other at their center, a link connected with the valve of the burner, and a connection between the link and the bars, whereby the expansion and contraction of the bars will operate the link to open and close the valve.

CHARLES FREMONT RUKES.

Witnesses:

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