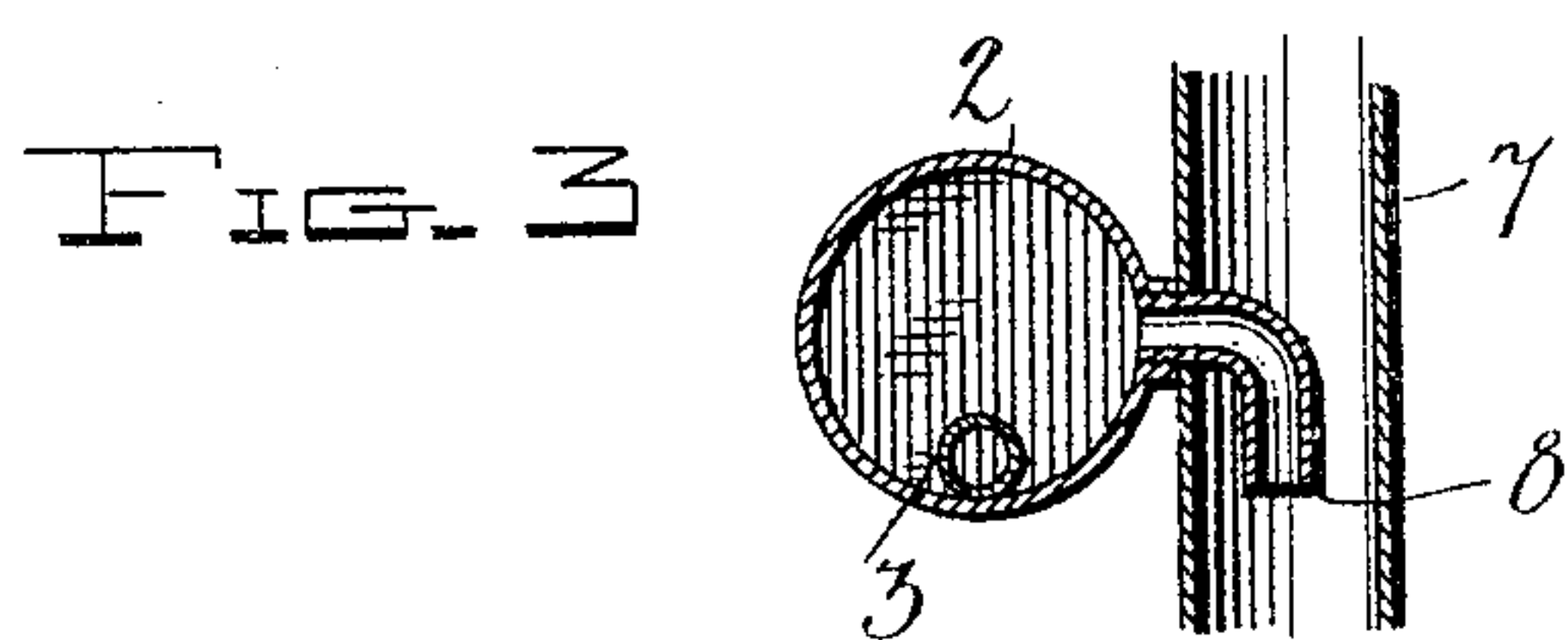
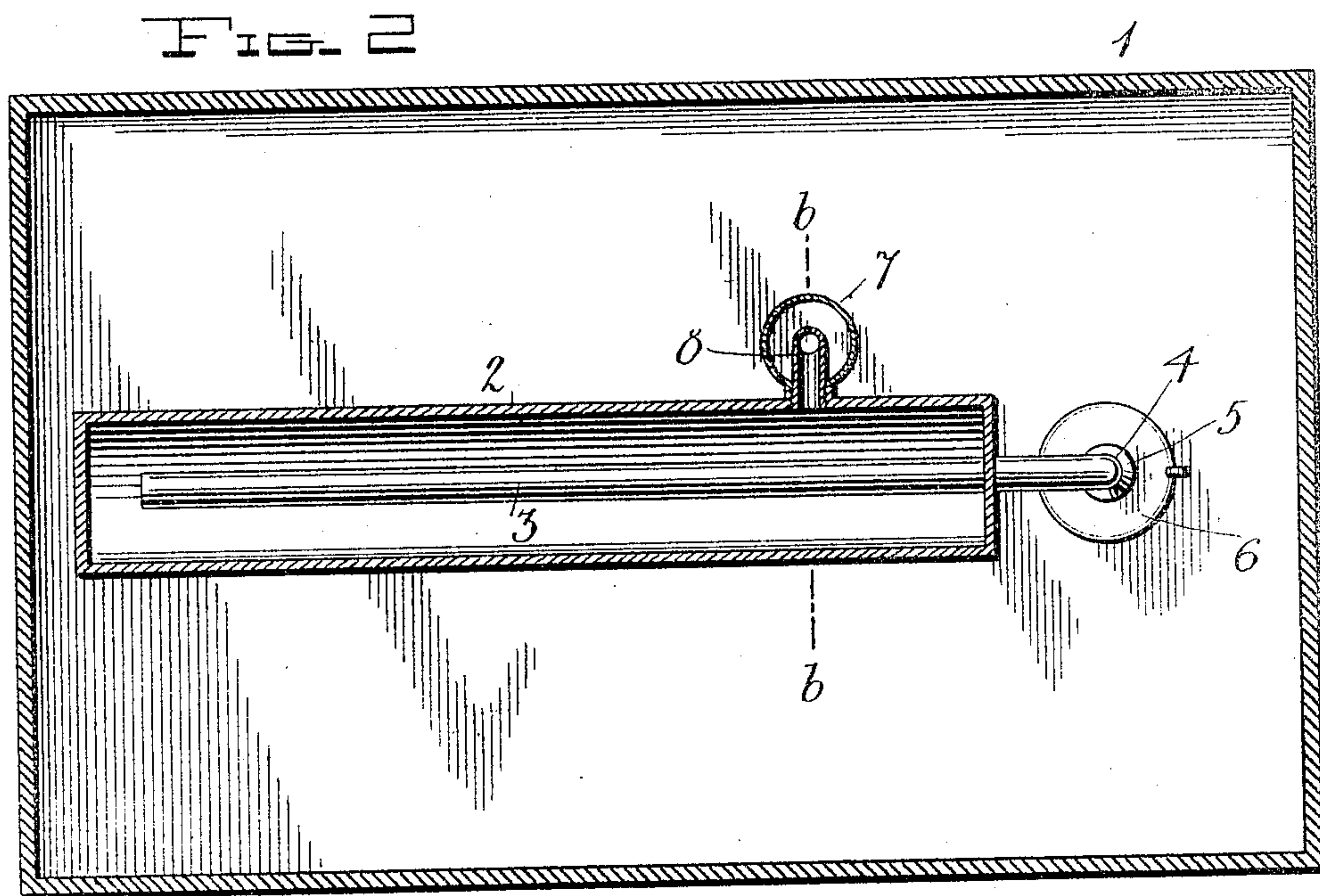
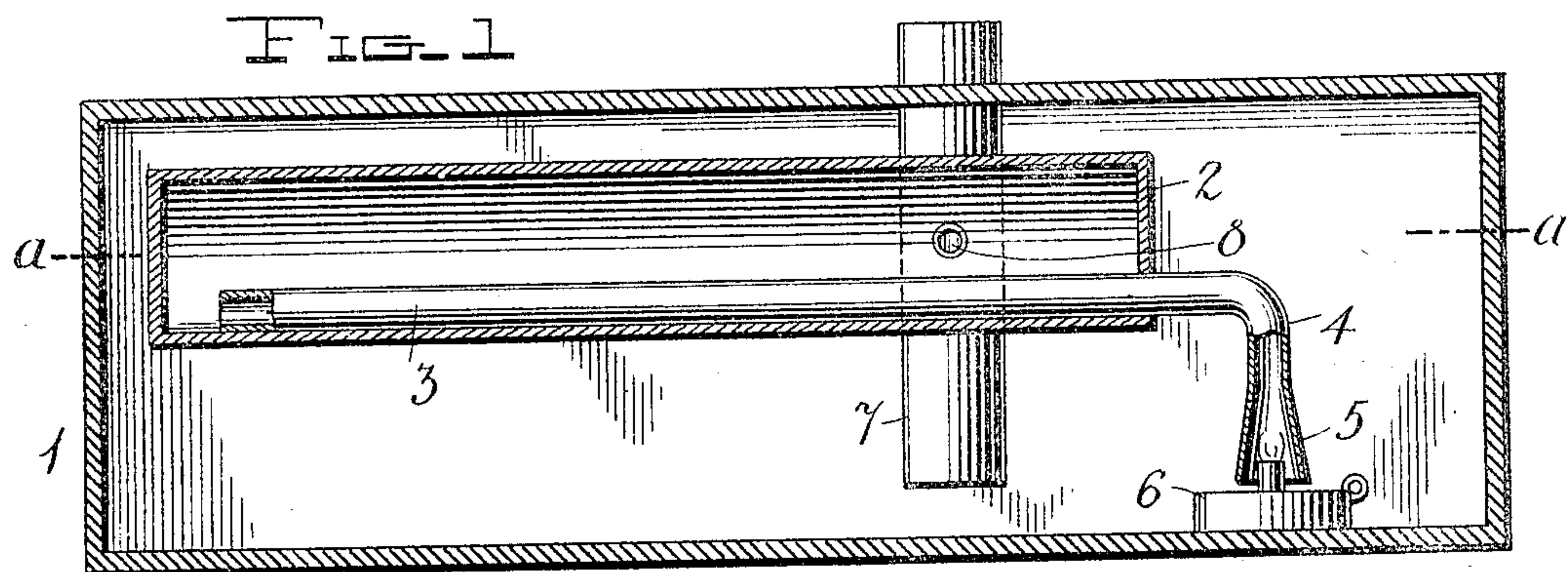


No. 803,140.

PATENTED OCT. 31, 1905.

W. A. SUMNER.
BROODER.

APPLICATION FILED MAR. 27, 1905.



Witnesses

C. H. Griesbauer.

Inventor

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UNITED STATES PATENT OFFICE.

WILLIAM A. SUMNER, OF FAIRFIELD, NEBRASKA, ASSIGNOR OF ONE-THIRD
TO HENRY E. SPENCER AND ONE-THIRD TO CHARLES J. HARRIS.

BROODER.

No. 803,140.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed March 27, 1905. Serial No. 252,423.

To all whom it may concern:

Be it known that I, WILLIAM A. SUMNER, a citizen of the United States, residing at Fairfield, in the county of Clay and State of Nebraska, have invented certain new and useful Improvements in Brooders; and I do 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.

My invention relates to an improved brooder and means for heating the same; and it consists in the construction, combination, and arrangement of devices hereinafter described and claimed.

The object of my invention is to provide a cheap, simple, and efficient device of the character which is effective to heat a brooder to the required degree uniformly at all points and which serves also as a ventilator and to take off all gases arising from the products of combustion and to prevent accumulation of foul airs in the brooder-box.

In the accompanying drawings, Figure 1 is a vertical longitudinal sectional view of a brooder embodying my improvements. Fig. 2 is a horizontal sectional view of the same, taken on the plane indicated by the line *a a* of Fig. 1; and Fig. 3 is a detail sectional view taken on the plane indicated by the line *b b* of Fig. 2.

The brooder-box 1 may be of any suitable construction and of any suitable size and shape. Within the same and suitably spaced from its upper side is a heating-drum 2, which is preferably made of sheet metal and may be of any suitable size and shape. A pipe 3 extends longitudinally in the lower portion of the drum 2 from one end thereof to near the opposite end thereof and is provided with a downturned intake-elbow 4, which has an intake-funnel 5, under which a suitable lamp 6 may be placed. A vertical tube 7 is disposed in the brooder-box and extends through the

top thereof and is open at its upper and lower ends. An elbow 8 leads from the drum at a point distant from the discharge end of the pipe 3 and enters and is downturned in the ventilating-pipe 7.

In the operation of the invention the heated air from the lamp passes through the pipe into the drum 2, warming the latter and the interior of the brooder-box and escapes from the drum through the downturned elbow 8 into the pipe 7 and thence upwardly to the outer air. It will be understood that the pipe 7 serves to ventilate the interior of the brooder-box and that the elbow 8, which is downturned and extends into the said pipe 7, partially obstructs the latter, so as to intercept downdrafts caused by gusts of wind and prevent them from extinguishing the lamp-flame.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

A brooder having a vertically-disposed ventilating-pipe, a heating-drum, and a downturned elbow leading from the drum and discharging into and partially obstructing the ventilating-pipe, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM A. SUMNER.

Witnesses:

W. L. MINOR,
S. C. THOMPSON.