

No. 730,640.

PATENTED JUNE 9, 1903.

O. H. GROSLAND.
BROODER.

APPLICATION FILED MAR. 16, 1903.

NO MODEL.

Fig. 1.

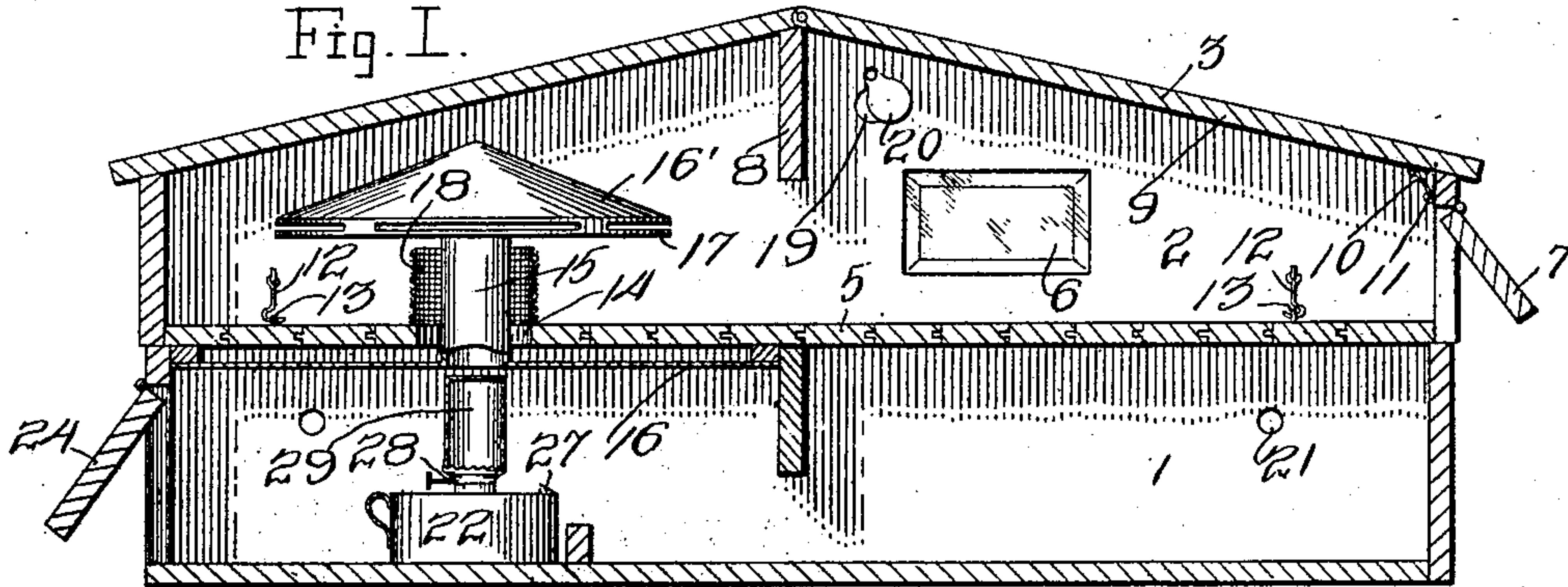


Fig. 2.

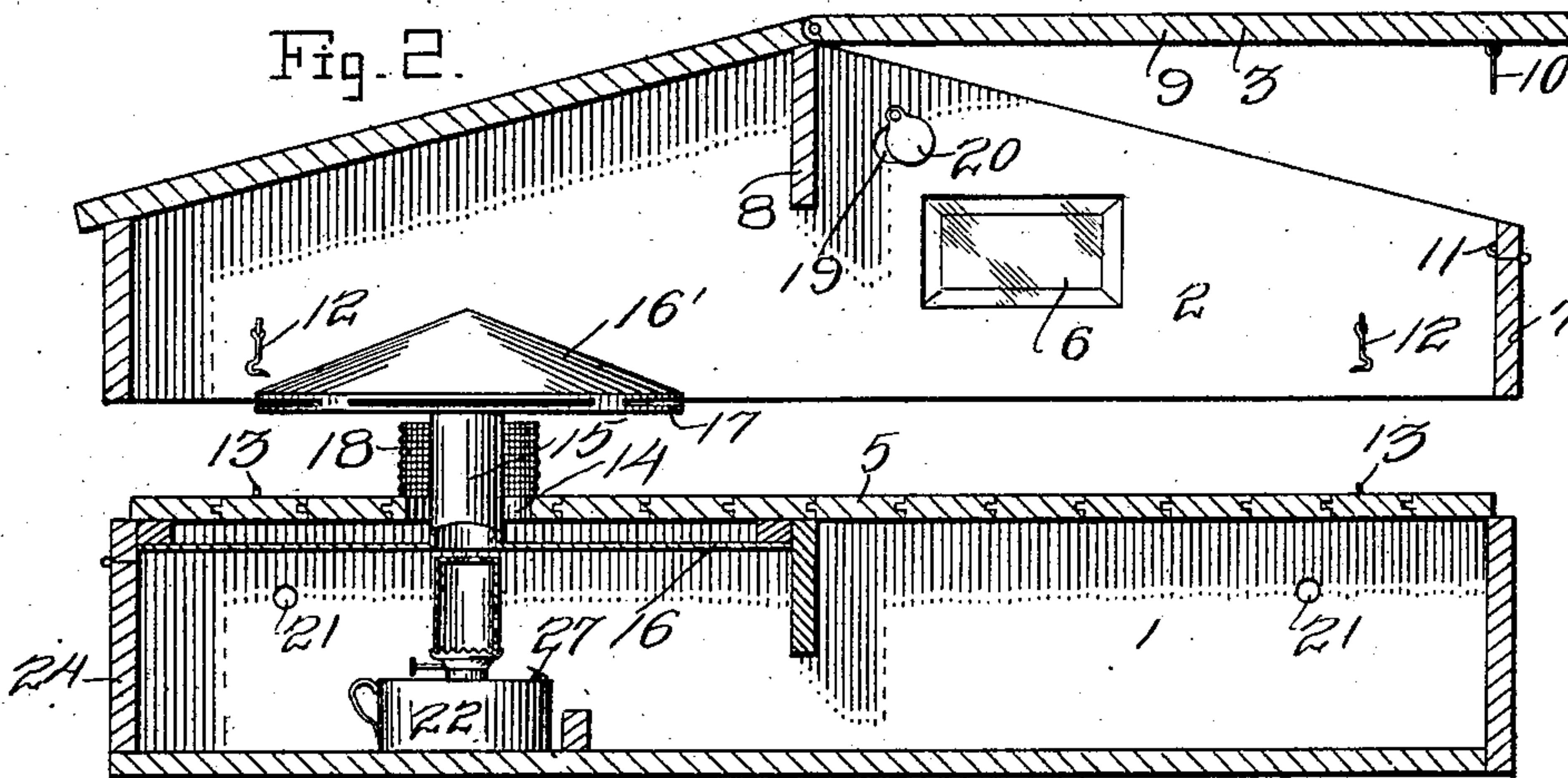


Fig. 3.

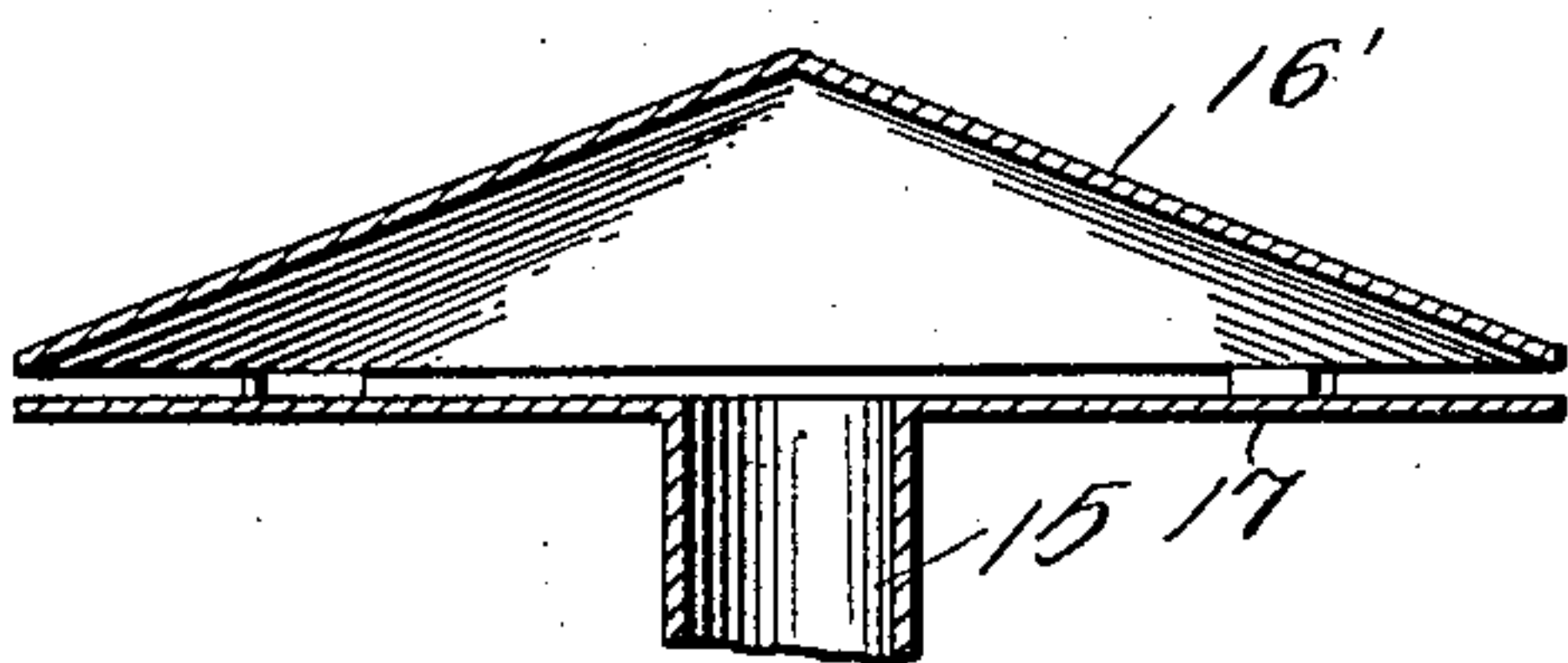
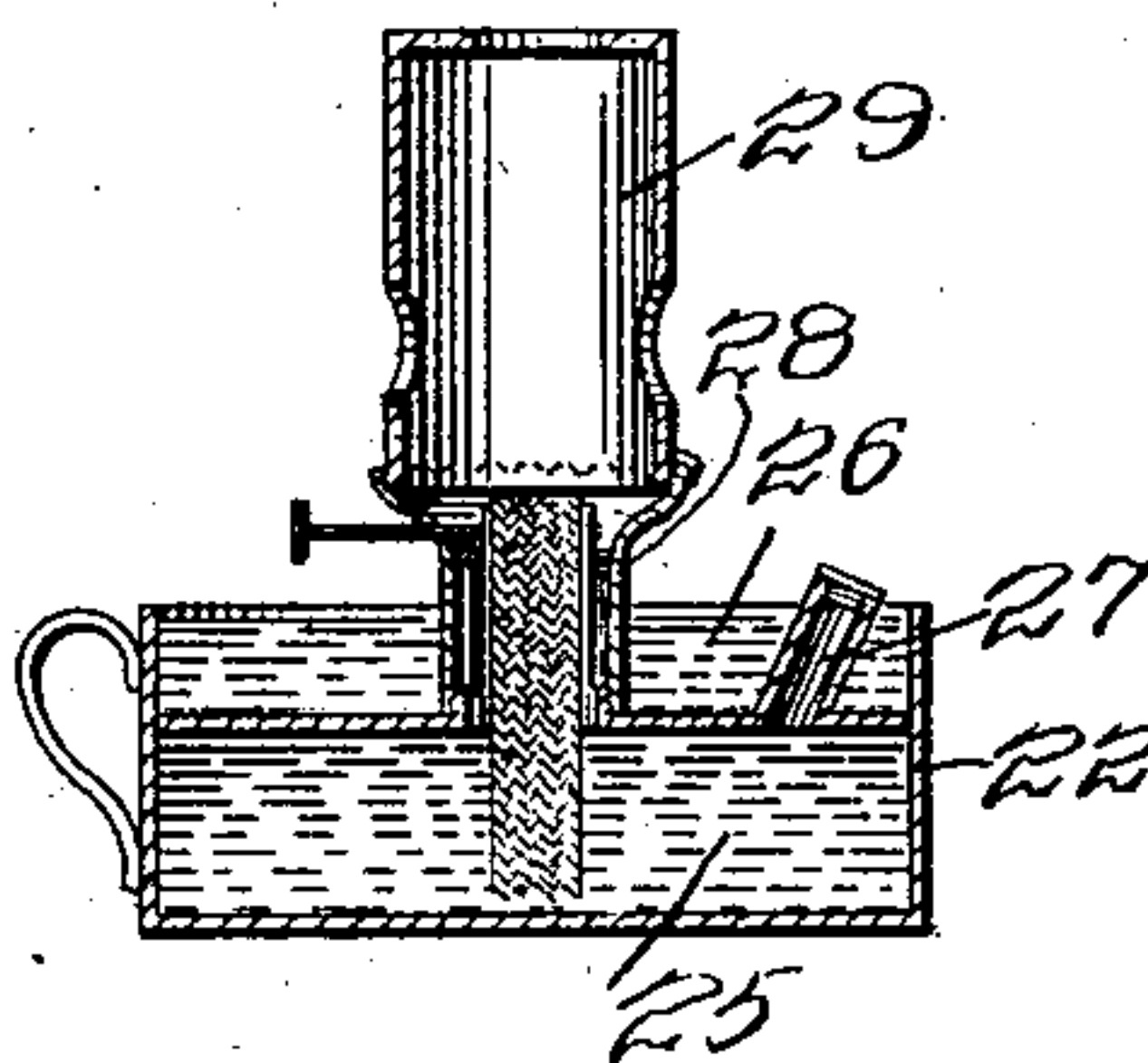


Fig. 4.



Inventor.

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Witnesses

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UNITED STATES PATENT OFFICE.

OLE H. GROSLAND, OF KENSETT, IOWA; ASSIGNOR OF ONE-HALF TO
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BROODER.

SPECIFICATION forming part of Letters Patent No. 730,640, dated June 9, 1903.

Application filed March 16, 1903. Serial No. 148,040. (No model.)

To all whom it may concern:

Be it known that I, OLE H. GROSLAND, a citizen of the United States, residing at Ken-
sett, in the county of Worth and State of
5 Iowa, 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 en-
able others skilled in the art to which it ap-
10 pertains to make and use the same.

This invention relates to brooders, and con-
sists of the features of construction and com-
binations of parts hereinafter more fully de-
scribed and claimed, the object in view be-
15 ing to provide simple and efficient means for
heating the brooder-chamber, said means em-
bodying a radiator serving also as a hover
for the chicks.

The invention is illustrated in the accom-
20 panying drawings, in which—

Figure 1 is a vertical longitudinal section
of an incubator embodying my invention.
Fig. 2 is a similar view showing the upper sec-
tion detached from the lower section. Fig. 3
25 is a sectional view of the combined hover and
radiator, and Fig. 4 is a sectional view of the
lamp.

My improved brooder comprises in its con-
struction lower and upper chambers 1 and 2,
30 preferably of box form, the upper section 2
having a gable roof 3 and adapted to rest upon
the upper edge of the lower section 1. The
lower section 1 is provided with a top floor-
ing or horizontal partition 5, which separates
35 the two chambers from each other. This
floor serves not only as the top roof of the
lower section, but as the floor of the upper
section when the two sections are connected.
The upper section is provided with one or
40 more windows 6 for lighting purposes, and
one or more doors, whereby access may be had
thereto for the convenient insertion and re-
moval of the chicks. One half or section of
the roof 3 is also hinged to a cross-piece 8 to
45 form a door 9, which rests at its upper edge
upon one of the end walls of the section above
the door 7 and is provided with a hook 10 for
engagement with an eye or keeper 11 on the
section 2 for holding it closed. This hook
50 or catch is so arranged that by swinging the
door 7 open it may be disengaged, leaving the

door 9 free to be elevated. The door 9 gives
more convenient access to the upper compart-
ment to enable the same to be cleaned without
the necessity of removing the section 2 from 55
the section 1. The section 2 is provided with
hooks or catches 12 to engage eyes 13 on the
section 1, whereby the two sections are fas-
tened together. In the floor 5 is an opening
14, through which projects a hot-air conduct- 60
ing-pipe 15, carried by a metallic plate 16,
secured to the section 1 beneath said floor.
The upper end of this pipe supports a radi-
ator and deflector, consisting of a cone 16',
supported by a plate 17, suitably secured 65
upon the upper end of the pipe 15. The cone
16' is spaced apart from the plate 17 for the
escape into the chicks' chamber of the section
2 of the heated air supplied thereto through
the pipe 15, and the described construction of 70
the radiator provides a substantially um-
brella-shaped cover, under which the chicks
may collect to secure the desired warmth. An
annular shield 18 rising from the wall 5 en-
circles the pipe 15 and prevents the chicks 75
from coming in direct contact therewith or
becoming caught in the wall of the opening 14.
One or more ventilation-openings 19 may be
formed in the wall of the section 2 to admit
fresh air and allow the vitiated air to be dis- 80
charged. Each of these openings will be closed
by a ventilator-slide 20. In the section 1 are
openings 21 for the inlet of fresh air and out-
let of the fumes from a lamp 22, insertible and
removable through a door 24 provided upon 85
said section. The lamp 22 is partitioned to
form an oil-chamber 25 and a superposed wa-
ter-chamber 26, a tube 27, projecting from
above through the chamber 26 and into the
chamber 25, affording a conductor for refill- 90
ing the latter-named chamber with oil. The
burner-tube 28 is kept cool by the water in
the chamber 26 and carries a hinged flue or
chimney 29, which is disposed below the flue
or pipe 15. When the lamp is lighted, it will 95
be apparent that hot air will pass up through
the pipe 15 and be supplied from the drum or
radiator to the chamber of the section 2.

From the foregoing description, taken in
connection with the accompanying drawings, 100
the construction and mode of operation of the
invention will be readily understood, and it

will be seen that a brooder is provided which is simple of construction, which affords convenient access to the parts, and which embodies a heater which serves also as a hover, 5 under which the chicks may collect to secure the proper degree of warmth.

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

10 A brooder comprising a base-section forming a heating-chamber, a top section removably mounted upon the base-section and forming a chicks' chamber, a heater in the base-section, a hot-air flue supported by the base-

section and projecting into the chicks' chamber, a combined radiator and hover supported by said flue, and consisting of a conical drum and a base-plate spaced therefrom, and a shield encircling and guarding the flue, substantially as described. 15 20

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

OLE H. GROSLAND.

Witnesses:

B. A. RINGHAM,
OLE A. NUBSON.