

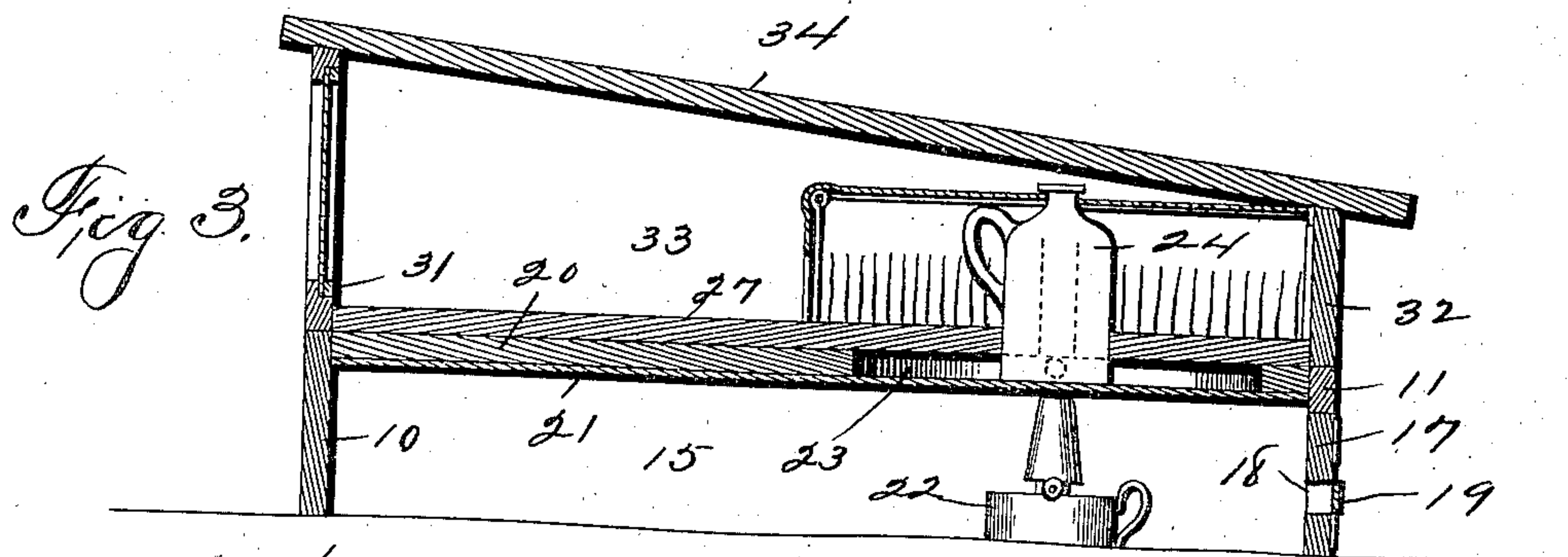
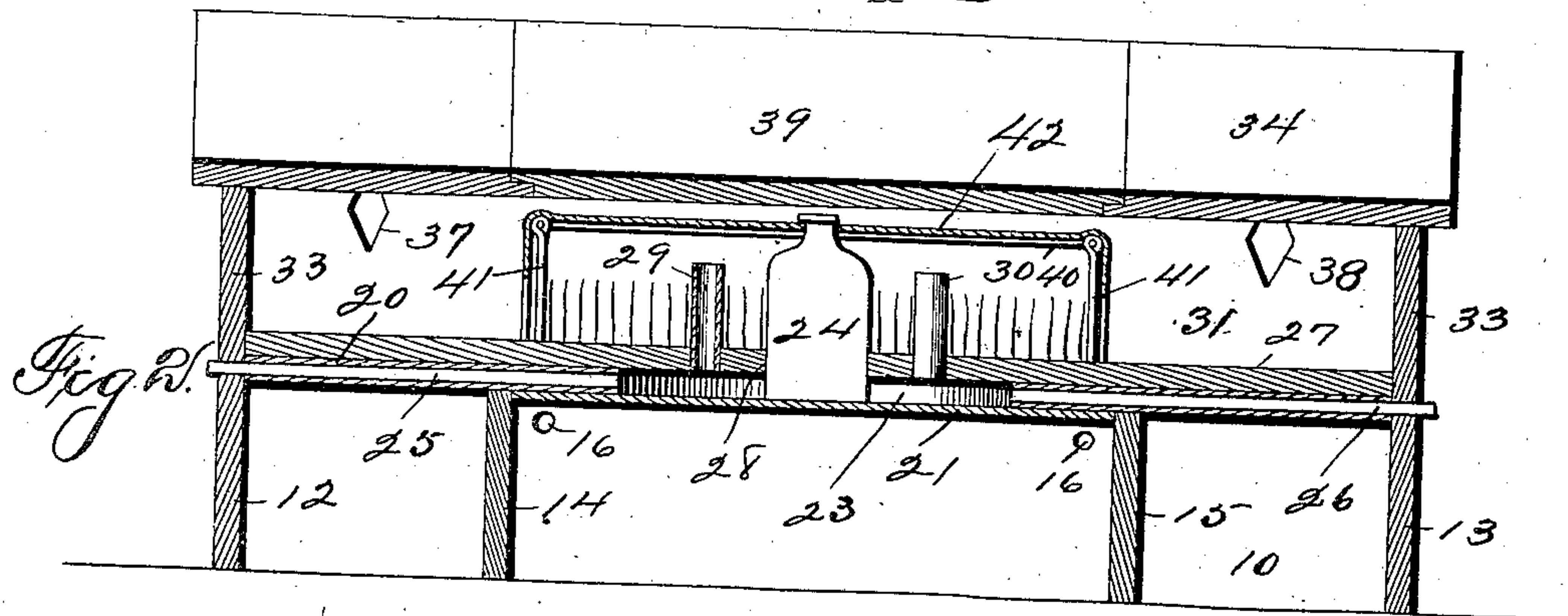
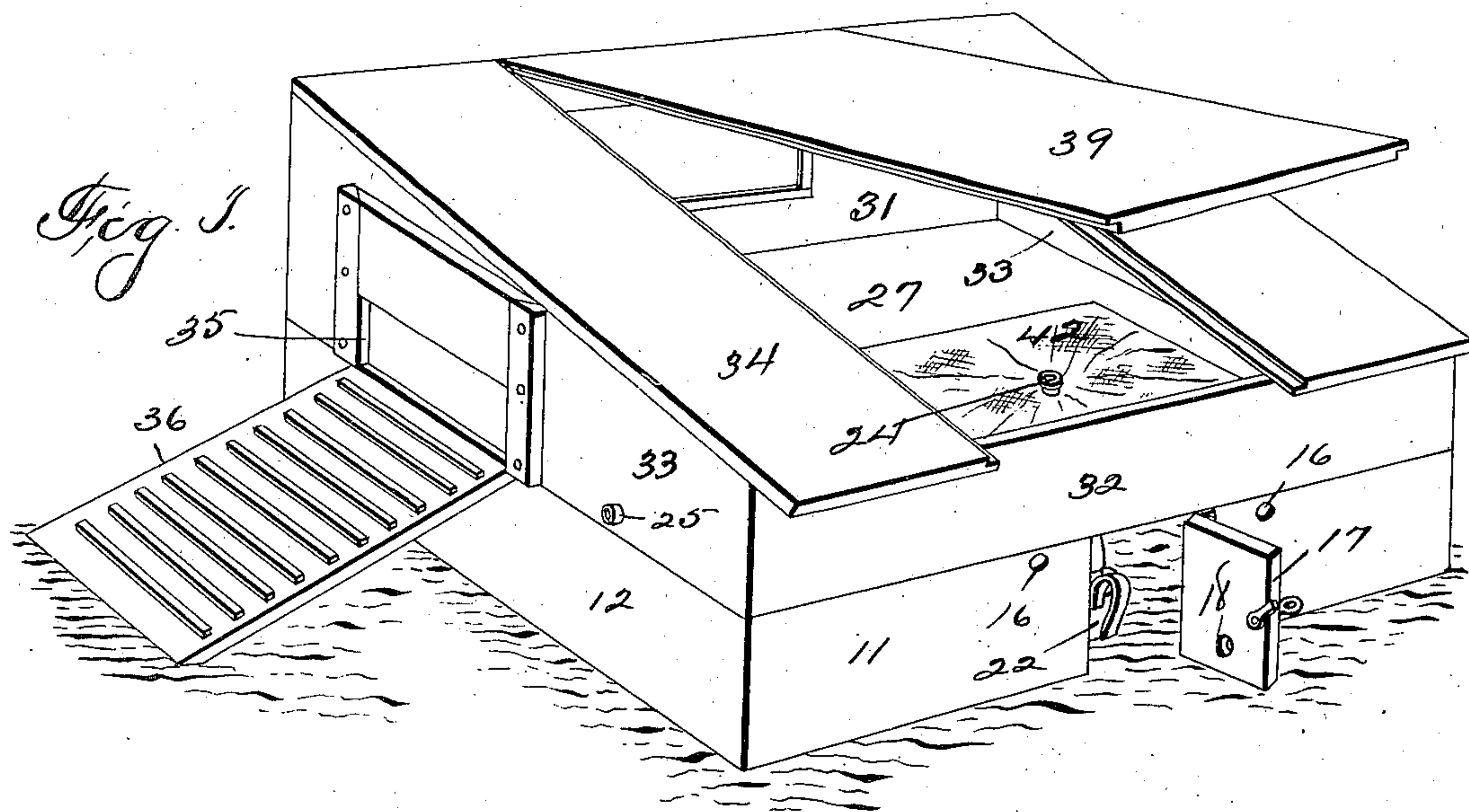
No. 754,330.

PATENTED MAR. 8, 1904.

M. A. MILLS.
BROODER.

APPLICATION FILED NOV. 28, 1903.

NO MODEL.



Attest:
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UNITED STATES PATENT OFFICE.

MARTIN A. MILLS, OF EXIRA, IOWA.

BROODER.

SPECIFICATION forming part of Letters Patent No. 754,330, dated March 8, 1904.

Application filed November 28, 1903. Serial No. 182,983. (No model.)

To all whom it may concern:

Be it known that I, MARTIN A. MILLS, a citizen of the United States of America, and a resident of Exira, Audubon county, Iowa, have invented a new and useful Brooder, of which the following is a specification.

The object of this invention is to provide an improved construction for brooders for the artificial warming of chicks.

My invention consists in the construction, arrangement, and combination of elements hereinafter set forth, pointed out in my claims, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective illustrating the complete brooder. Fig. 2 is a longitudinal section of the brooder. Fig. 3 is a cross-section of the brooder at right angles to Fig. 2.

In the construction of the brooder, as shown, the numeral 10 designates the front wall, 11 the rear wall, and 12 13 the end walls, of a casing, preferably of rectangular form in plan view. The casing is subdivided by transverse partitions 14 15 of the same height as and parallel with the end walls 12 13, the ends of the partitions being fixed to the front and rear walls. Ventilating ports or flues 16 are formed in and near the upper margins of the front and rear walls of the casing adjacent the inner faces of the transverse partitions 14 15. A door 17 is hinged in an opening in the rear wall 11 of the casing and provided with conventional means for holding the same closed. An oxygen-port 18 is formed in the lower portion of the door 17 and covered by a plate 19, spaced apart from the outer face of the door and open at its ends, whereby atmospheric air may enter through the port 18 at the rear of said plate by lateral draft as contradistinguished to a direct draft through said port if the plate were omitted. A floor 20 is mounted on the casing and supported by the walls and partitions thereof, and a plate 21, preferably of sheet metal, is mounted on the lower face of said floor and secured by nailing through the margins of the plate into the floor. A lamp 22 is removably and replaceably placed between the partitions 14 15 and front and rear walls of the casing directly beneath the sheet-metal plate 21, and the heat from the chimney

of said lamp contacts with and is deflected by said plate. An aperture 23 is formed in the floor 20 above the plate 21 and is arranged to receive and contain a jug 24 or other containing vessel in contact with and supported by the sheet-metal plate. Cold-air tubes 25 26 are mounted horizontally in the floor 20 and communicate between the end portions of said floor and the aperture 23. It is the function of the cold-air tubes 25 26 to convey atmospheric air from the exterior of the casing to the space surrounding the jug 24 in the aperture 23. A second floor 27 is mounted on the first floor and is provided with an aperture 28, through which the jug 24 may pass. Tubes 29 30 are mounted vertically in and extend through the floor 27, and it is the function of said tubes to supply air from the space surrounding the jug to the space above said floor.

A brooder-house or top casing composed of the front wall 31, rear wall 32 of less height than the front wall, end walls 33 33, and an inclined top 34 is provided and mounted on the base or lower casing and surrounds the floor 27. One of the end walls 33 of the brooder-house or upper casing is provided with an ingress-port 35, to which a runway 36 or inclined platform may approach, as illustrated in Fig. 1. A glazed opening is provided in the front wall 31 of the brooder-house or casing, and ventilators 37 38 are provided in said front wall on either side of the glazed opening or window. The cold-air flues 25 26 extend through the end walls 33 33 of the brooder-house or casing, preferably by reason of notches in the lower margins of said end walls overlapping said tubes. A door 39 is formed in the inclined cover 34 of the brooder-house or upper casing and is hinged at one end for vertical oscillation to provide access to the brooder-room. A three-sided frame 40 is mounted in the brooder-house or upper casing and supported by posts 41 41, fixed to or resting on the floor 27. The frame 40 is covered with fabric 42, and the margins of said fabric depend from each bar of the frame and the floor 27 and are slitted a distance above said floor for convenient ingress and egress of chicks thereto. The fabric 42 should be of material and considerable weight, such

as a good grade of cotton-flannel, in order that it may bear a considerable amount of usage and offer considerable resistance to the radiation of heat. The fabric 42 surrounds the jug 24 and has an aperture in its center, through which the neck of the jug protrudes, and vapor given off by the heat of the water in the jug is discharged outside the warm room inclosed by the fabric or hover. It is to be understood that the space inclosed by the fabric 42 and the depending slitted margins thereof will be maintained at a higher temperature than the space within the brooder-house or upper casing surrounding said fabric, thus providing a warm room in which chicks may seek shelter from a lower temperature on the outside. In practice it is usual for the chicks to run in and out of the warm room frequently, taking refuge in the warmer temperature whenever they desire to do so, and on occasion playing about the brooder-house or upper casing or even in the atmospheric air outside the casing on the runway or adjacent thereto.

It will be observed that the space between the partitions 14 15 and the front and rear walls of the lower casing constitutes a furnace-chamber supplied with oxygen through the port 18 and having vents or flues 16. The spaces at the ends of the casing have the function of limiting and restricting the radiation of heat from the furnace-chamber, but are unoccupied. The port 35, whereby the chicks may pass to and from the brooder-house or upper casing, may be closed by a door, as illustrated in Fig. 1.

I claim as my invention—

1. The brooder, comprising a casing containing a furnace-chamber, a lamp therein, a floor on said casing, a water-receptacle on said floor and open at its top, pipes in said floor

and communicating between the exterior of the casing and the space around said water-receptacle, a brooder-house or upper casing surrounding said floor, air ingress and egress ports for the furnace-chamber, air-egress ports for the brooder-house or upper casing, and a door in said upper casing.

2. A brooder, comprising a casing provided with air ingress and egress ports and a door, a lamp removably and replaceably mounted in said casing, a floor on said casing, which floor is apertured, a sheet-metal plate mounted on said floor and crossing the aperture therein, a water-receptacle on said sheet-metal plate within said aperture, a hover surrounding said receptacle and supported by the floor, and a housing inclosing said hover and receptacle and supported by the floor.

3. A brooder, comprising a casing formed with a furnace-chamber, ventilators and means of access to said chamber, a floor on said casing and formed with an aperture, a sheet-metal plate on said floor crossing the aperture therein, cold-air pipes leading through said floor to said aperture, a water-receptacle in said aperture of the floor and supported by said sheet-metal plate, a second floor on the first floor and provided with an aperture to receive the water-receptacle, ventilating-pipes mounted in the floor, a hover surrounding the water-receptacle and resting on the floor, and a housing surrounding and covering the water-receptacle and hover and provided with means of ingress and egress.

Signed by me at Exira, Iowa, this 3d day of July, 1903.

MARTIN A. MILLS.

Witnesses:

W. R. COPELAND,
W. A. HAMLER.