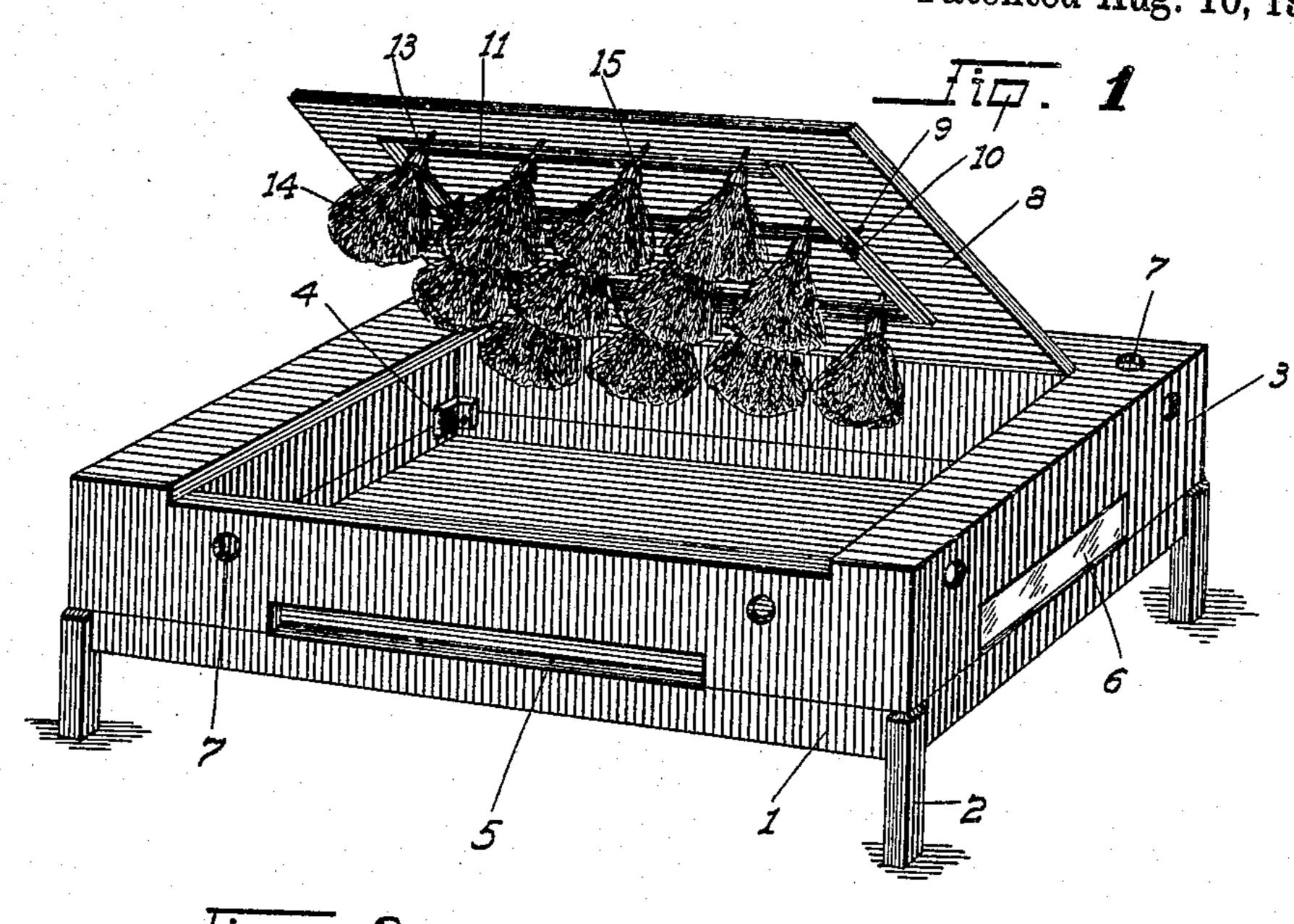
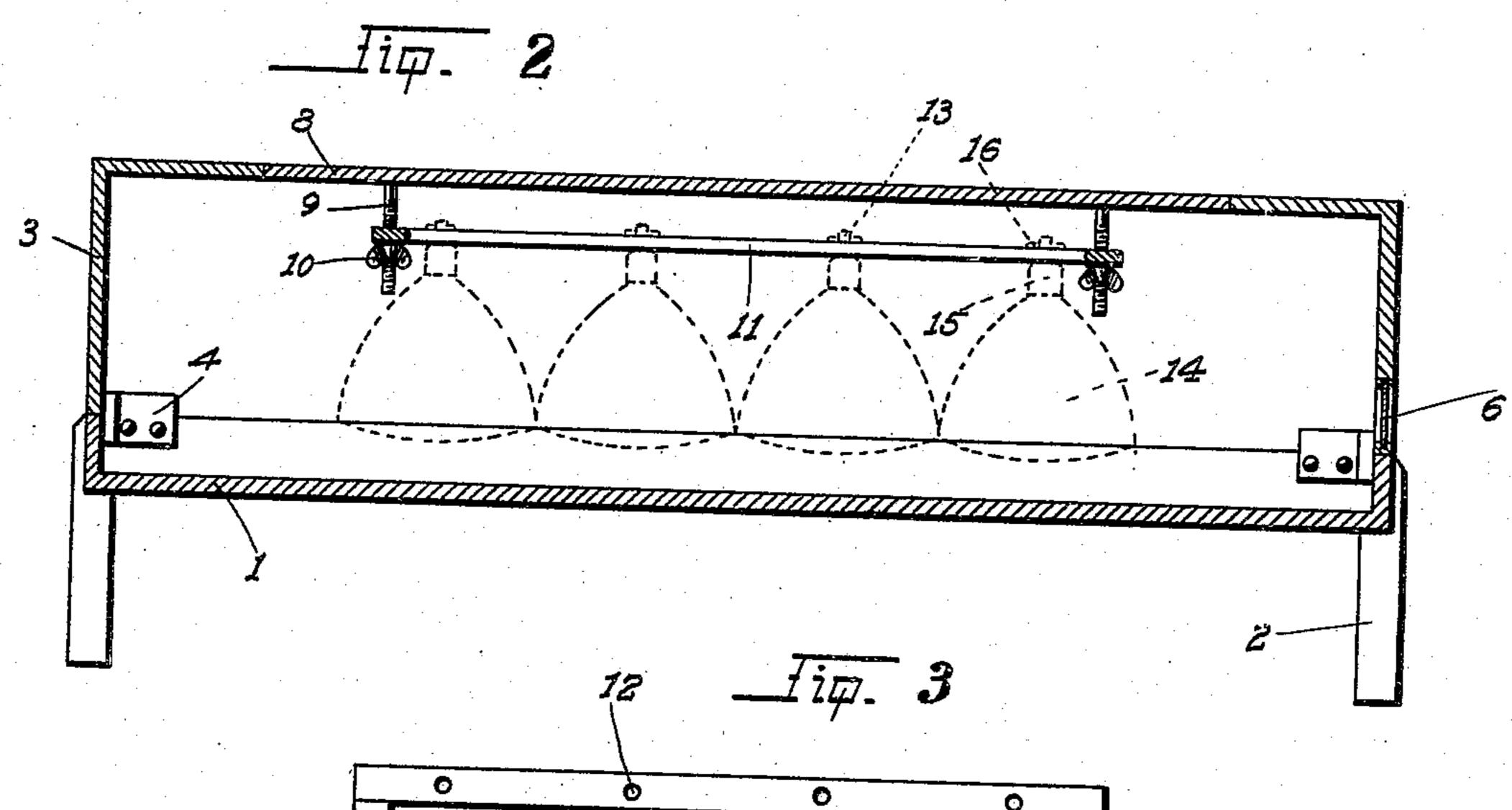
## E. S. ADAMS.

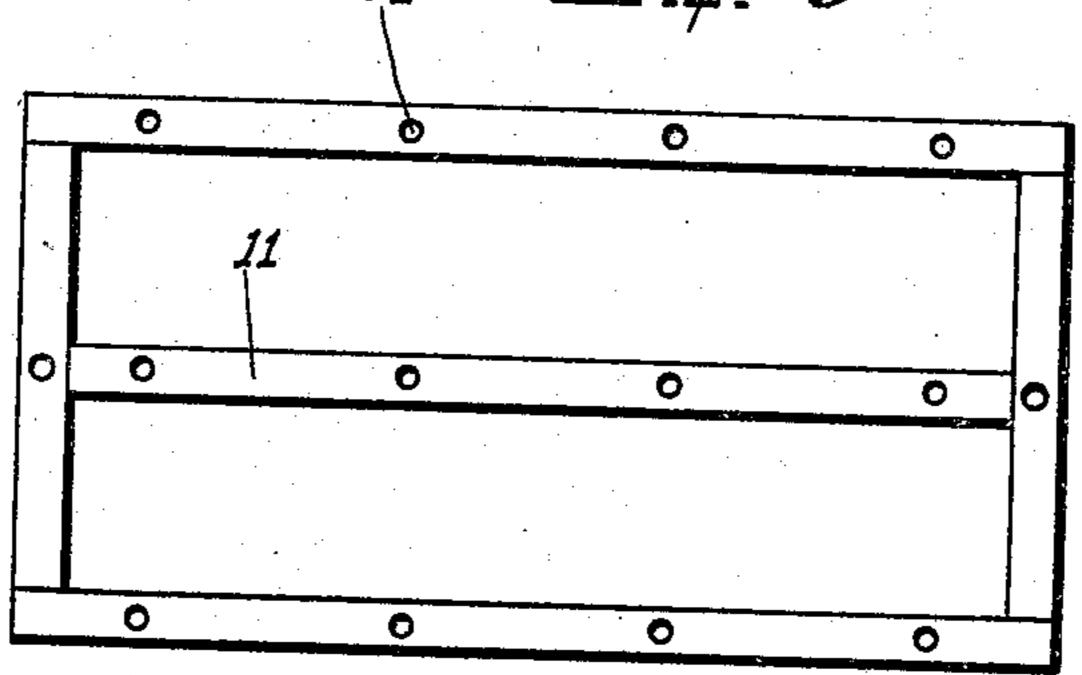
FIRELESS BROODER. APPLICATION FILED NOV. 3, 1908.

930,915.

Patented Aug. 10, 1909.







Witnesses

Inventor Earl S. Adams.

## UNITED STATES PATENT OFFICE.

EARL S. ADAMS, OF LLAGAS, CALIFORNIA.

## FIRELESS BROODER.

No. 930,915.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed November 3, 1908. Serial No. 460,812.

To all whom it may concern:

Be it known that I, Earl S. Adams, a citizen of the United States, residing at Llagas, in the county of Santa Clara, State of California, have invented certain new and useful Improvements in Fireless Brooders; and I do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to chicken hatching and raising apparatus and particularly to brooders used for raising chickens hatched in an incubator or those which have, for any reason, been taken from the mother hen, the 20 object of the invention being to produce a brooder which is so constructed and operated as to obviate the necessity of having any artificial heat applied such as is now done with coal oil lamps, coke, or other similar material, thus doing away with the inconvenience and bother of tending to such artificial heating means.

A further object is to produce a simple, inexpensive and effective brooder which can 30 be operated with a minimum of expense and still successfully raise a greater percentage of the chickens than can be done with the heated brooders.

These objects I accomplish by means of a 35 housing box having a hinged lid having an adjustable hanging frame on its under side in which is disposed a plurality of adjustable feather dusters or feathers similarly grouped, such box having suitable inlets and outlets 40 and air circulating means, the scheme of the invention being that the feathers impart or rather maintain the body heat of the chicks when they get under the same thus giving them the same effect as nestling under the 45 mother hen. Also such other and further construction and relative arrangement of parts are employed as will more fully appear by a perusal of the following specification and claim.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a perspective view of the com-

plete device. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a top plan view 55

Referring now more particularly to the characters of reference on the drawings 1 designates the main housing box of the brooder having suitable supporting legs 2 and a removable upper portion 3 fitting over retaining flanges 4, the purpose of having such removable upper portion being to render an easy means for getting at the interior for the purpose of cleansing or repairing the same. 65 The portion 3 is formed with an inlet 5 in the front for the entry of the chicks and with suitable glass windows 6 for lighting purposes. Also such member 3 has suitable air inlets and outlets 7.

The top of the member 3 is provided with a hinged lid 8 depending from which are bolts 9 having wing nuts 10 on their lower ends on which wing nuts rest a frame member 11 provided with a plurality of holes 12 spaced 75 apart as shown through which holes project the stems or handles 13 of feather dusters or similarly bunched feathers 14, each member 14 having a shoulder 15 bearing against the under side of the frame 11 and maintained 80 in such position by means of pins 16 projected through the stems 13 on the upper side of said frame 11.

When the chicks enter the brooder and nestle under the feathers 14 the same main- 85 tain the body heat of such chicks and thus keeps them warm and healthy. As they grow older and larger, the wing nuts 10 are screwed upon the bolts 9 thus raising the frame 11 and incidentally the feathers thus 90 giving more room therebeneath.

The use of the feather as described above I have found permits a larger percentage of the chicks to be raised successfully than can be accomplished by means of the artificially 95 heated brooders.

From the foregoing description it will be readily seen that I have produced a brooder which substantially fulfils the objects of the invention as set forth herein and particu- 100 larly as to simplicity and inexpensiveness.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form 105 a departure from the spirit of the invention. Having thus described my invention what I claim as new and useful and desire to secure by Letters Patent is:—

A brooder for chickens comprising a box having supporting legs upwardly projecting retaining flanges on said box, a movable upper member on said box fitting over said flanges, a hinged lid on said removable upper

member, depending bolts on said hinged lid, adjustable wing nuts on the lower ends of said bolts, a frame member mounted on said

bolts and resting on said wing nuts, and a plurality of feathers disposed in bunches each bunch having an upwardly projecting stem secured in said frame member.

In testimony whereof I affix my signature

in presence of two witnesses.

EARL S. ADAMS.

Witnesses:

H. L. DICKINSON,

O. Norman.

15