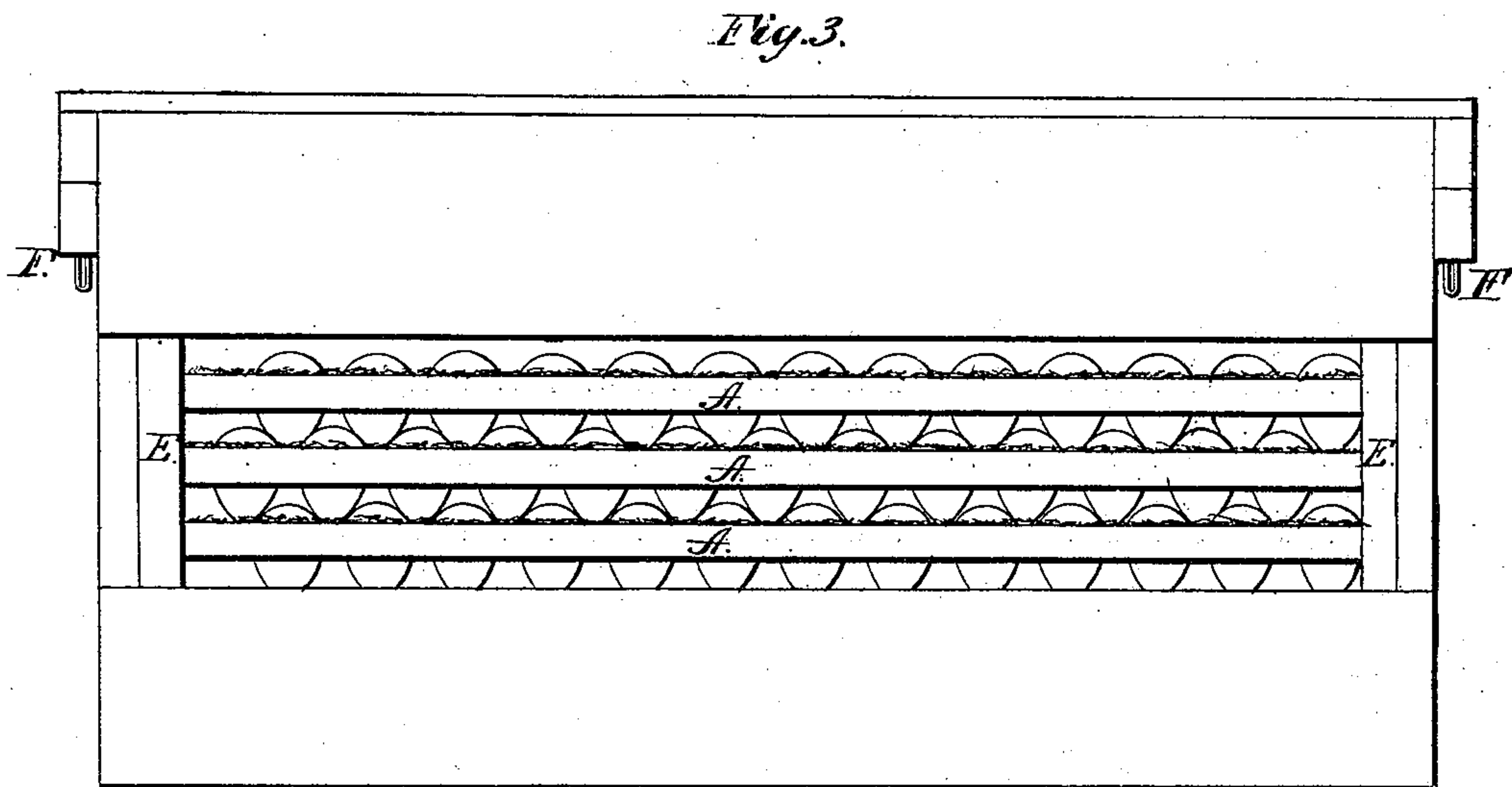
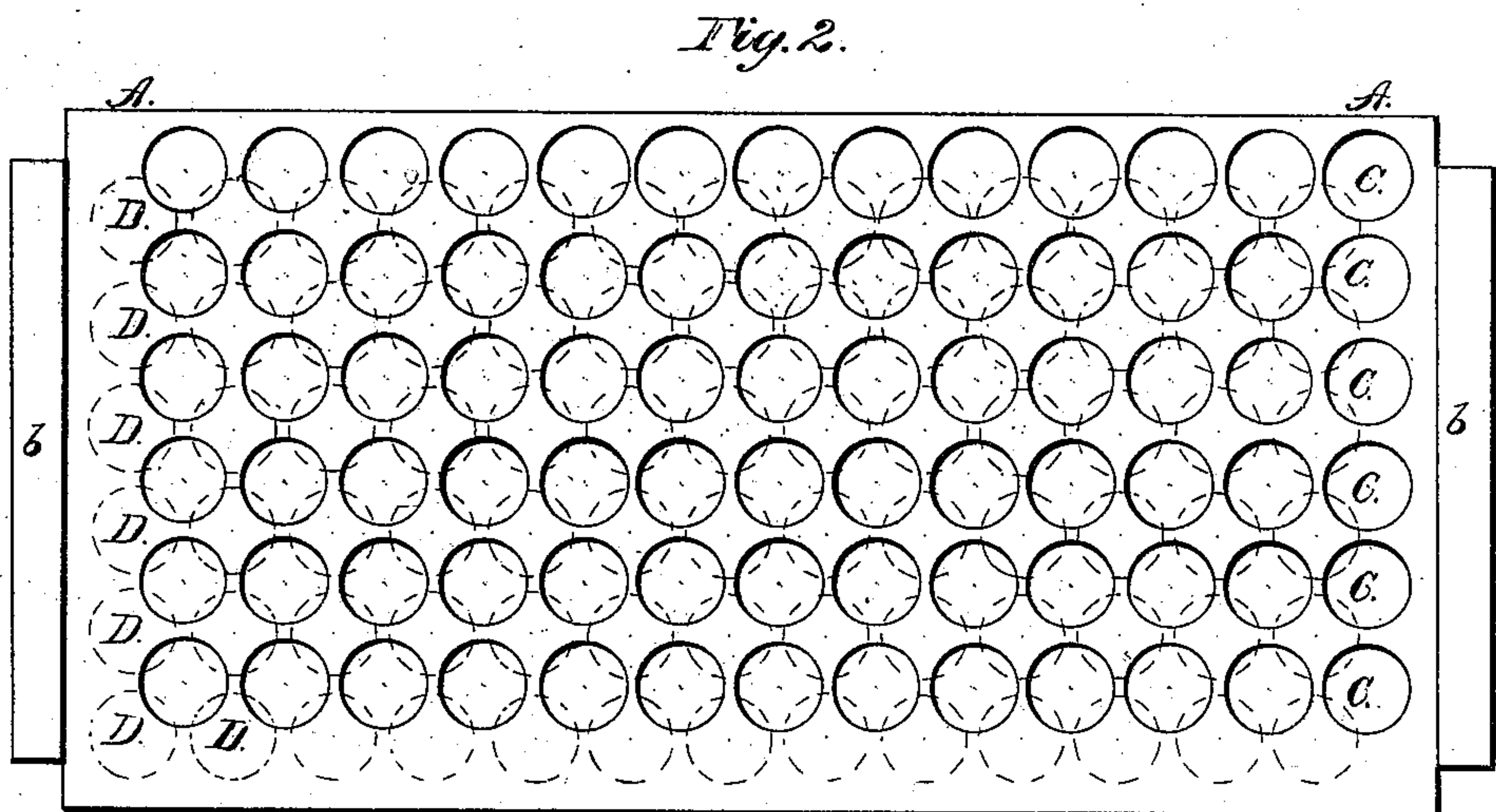
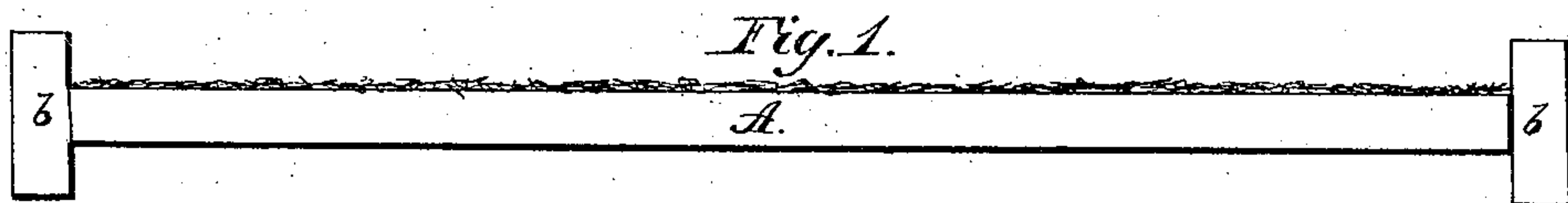


M. A. HOWELL, Jr  
EGG-CARRIERS.

No. 194,914.

Patented Sept. 4, 1877.



Attest:

Inventor

Nelson S. Howell  
J. H. Woods, M.D.

Martin A. Howell Jr



# UNITED STATES PATENT OFFICE.

MARTIN A. HOWELL, JR., OF STREATOR, ILLINOIS.

## IMPROVEMENT IN EGG-CARRIERS.

Specification forming part of Letters Patent No. **194,914**, dated September 4, 1877; application filed May 16, 1876.

*To all whom it may concern:*

Be it known that I, MARTIN A. HOWELL, Jr., of the town of Streator, in the county of La Salle and State of Illinois, have invented a new and useful Improvement in Egg-Crates, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing.

The object of the invention is to provide an improved egg crate or box which shall be adapted to contain and safely transport a larger number of eggs than those of the same size in common use, and which may, withal, be cheaply constructed.

Referring to the drawing, Figure 1 is a side or edge view of one of the racks employed in the crate. Fig. 2 is a plan view of the same. Fig. 3 is a side elevation of the crate.

I construct a box about fourteen inches wide, twenty-eight inches long, and about sixteen inches in height, the general construction of which is shown in Fig. 3 of the accompanying drawing. I then take a block of bass-wood, or any other suitable wood, about equal to the inside measurement of the box as to length and width. The thickness of this block is about four and a half inches, in order that it may be sawed into eight pieces after boring. I then place this block under a boring-machine, and with a gang of bits bore seventy-two holes, each being about one and seven-eighths inch in diameter, and occupying positions as are shown at C C, Fig. 2, leaving a wide margin upon one end and edge of the piece at right angles to one another, which is plainly seen in the plan view, Fig. 2.

After the boring is completed I saw it into eight parts of one-half inch thickness, leaving the rough saw-cut surface in the condition in which the saw left it. I fasten upon each end of these pieces a strip of wood or slat, *b b*, Figs. 1 and 2, in order that these pieces or racks, when placed in their proper position in the box, shall retain their respective distance from one another. I then place in each inside corner of the box a small strip of wood, *E E*, Fig. 3, in a vertical position and firmly fastened, to act as stays to the racks, that all lateral motion may be avoided.

About three-quarters of an inch above the

bottom of the box I place two small strips of wood, one upon each end, inside, upon which the bottom rack will rest in its proper position above the bottom of the box.

The bottom of the box is raised above the ends and sides, that the lower tier of eggs may receive the spring of the raised bottom, rendering them more safe in transportation over rough roads than if resting upon a hard bottom. I then take the racks, as are shown in Figs. 1 and 2, with their rough surfaces, and immerse them in a solution of very adhesive and elastic material, such as common glue. I then cover every part with fine sifted chaff, such as is usually procured by screening oats or other cereals. After considerable agitation the surface becomes thoroughly coated with a soft bed, cushion-like, which prevents the contact of the eggs with the otherwise hard surface of the wood, the rough saw-cut surfaces assisting in the increase of elasticity, and giving a firmer hold to the adhesive material used, while the elasticity of the rack, supported at the ends only, gives to the whole a guarantee of safety.

After being thus coated the eight racks, all being alike, are placed in the box, each alternate rack being reversed, so that the wide marginal spans upon one end and side shall be reversed in each alternate rack, by which means the holes C C in each rack fall opposite to the intervening spaces D D, which are shown in dotted lines, Fig. 2, upon which spaces the overlying tier of eggs shall rest, each rack supporting the eggs in the several holes in the rack above, which is shown more in detail in Fig. 3.

It will be seen that the racks *a a* are each about one-half an inch in thickness, and that the greatest diameter or bulge of the egg fills this space, leaving the tapering ends projecting above and below, thus preventing the possibility of contact of their surfaces by any lateral motion.

Upon the bottom of this box loose cut straw or chaff is placed, and into this the lowermost tier of eggs is embedded, which, with the elasticity of the raised bottom, insures a safe and easy carriage while in course of transportation over rough country roads.

The top or cover of this box is constructed

in the ordinary way, with end pieces nailed thereon. Through these end pieces an eye-bolt is fixed for the purpose of fastening the cover down, these said bolts fitting into corresponding holes bored in the piece secured to the ends of the box and corresponding to the pieces on the cover, which is clearly shown at F F, Fig. 3.

This construction and arrangement of racks enables forty-eight dozen eggs to be packed in the crate, whereas but about thirty dozen can be packed in crates of the same size in common use.

What I claim is—

1. For use in an egg crate or box, a perfo-

rated rack covered with adhesive substance and an outer coat of chaff, as shown and described, for the purpose specified.

2. In combination with a box constructed and arranged as described, a reversible rack or racks covered with an elastic coating, for the purposes and uses substantially as described.

MARTIN A. HOWELL, JR.

Witnesses:

WILSON S. HOWELL,  
D. L. WOODS, M. D.