July 13, 1937. H. H. REINERS 2,087,044

INCUBATOR EGG TRAYS

Filed May 25, 1936

Fig.1.

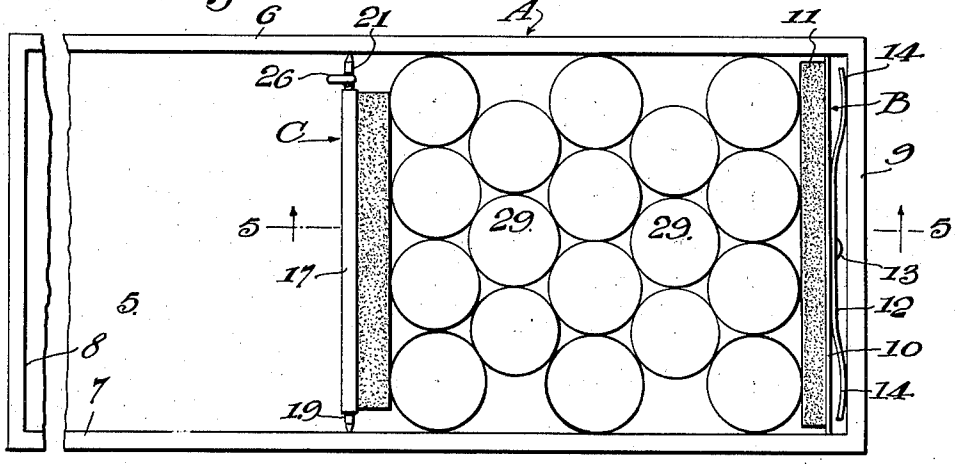


Fig.3.

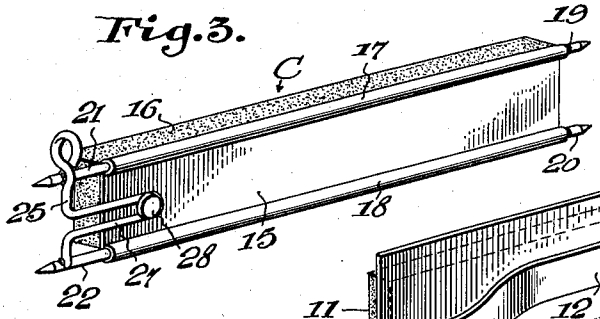


Fig.2.

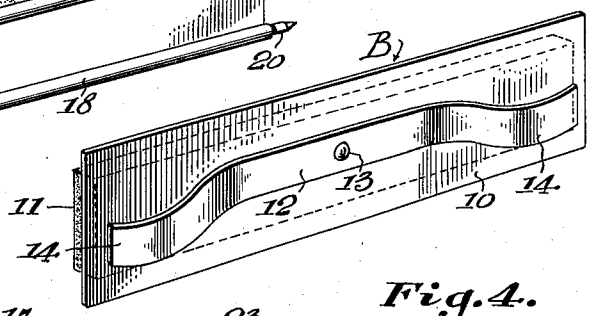


Fig.4.

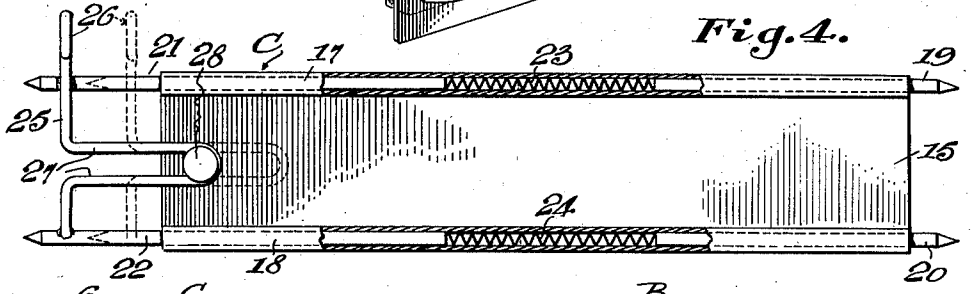
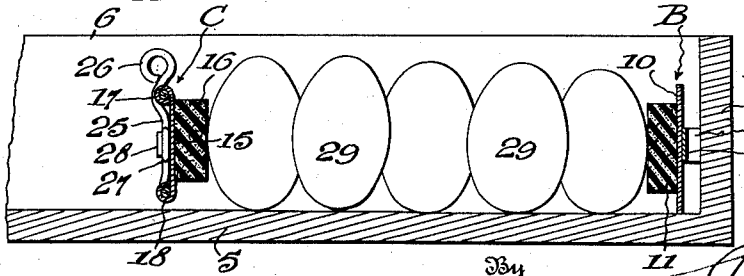


Fig.5.



Inventor

H. H. REINERS

By Chas. L. Allen

Attorney

Patented July 13, 1937 2,087,044

UNITED STATES PATENT OFFICE

2,087,044

INCUBATOR EGG TRAY

Herbert H. Reiners, Apopka, Fla.

Application May 25, 1936, Serial No. 81,739

6 Claims. (Cl. 119—43)

This invention relates to new and useful improvements in incubator egg trays generally, although more particularly to followers employed in combination with such trays.

Among the several objects of the invention are to provide a follower having an egg-contacting face of soft material whereby the eggs may be retained in compact relation in the tray without danger of becoming broken when the follower is moved into contact therewith; to provide a pair of spaced followers either one or both of which may be used in a tray, one of the followers yieldably contacting an end wall of the tray and the other being adjustable longitudinally of the tray, and to provide a follower which is simple in construction, cheap to manufacture, and durable in operation.

With these and other objects in view which will more fully appear, the nature of the invention will be more clearly understood by following the description, the appended claims, and the several views illustrated in the accompanying drawing.

In the drawing:

Figure 1 is a partial plan view of an egg tray showing the use of both followers in the tray,

Figures 2 and 3 are perspective views of the followers,

Figure 4 is an enlarged view, partly in section, of the adjustable follower, and

Figure 5 is an enlarged section taken on the line 5—5 of Figure 1.

Like reference numerals designate corresponding parts throughout the several figures of the drawing.

Referring to the accompanying drawing, A designates an egg tray which includes a bottom 5, side walls 6 and 7, and end walls 8 and 9. Adapted to be located within the tray between the side walls 6 and 7 is a relatively stationary follower B and a relatively adjustable follower C.

The follower B comprises a relatively stiff body 10 preferably formed from sheet metal and of an elongated rectangular shape, a strip 11 of relatively soft material such as sponge rubber which is firmly secured to the front face of the body 10 by adhesive or other suitable means, and a flat spring 12 which is connected centrally by a rivet 13 or the like to the rear face of the body 10. The relatively soft strip 11 extends substantially throughout the length of the body 10 whereas the flexible end portions 14, 14 of the spring 12 terminate short of the ends of said body 10. This follower B, as shown in Figures 1 and 5, is positioned against the end wall 9 whereby the end portions 14, 14 of the spring 12 contact the end wall and thereby serve to yieldably retain the follower against said end wall. The relatively soft facing 11 is adapted to be contacted by the eggs which are placed within the tray.

The adjustable follower C includes a body 15 of relatively stiff material, preferably sheet metal, and a facing 16 of relatively soft material, preferably sponge rubber. The body 15 is elongated and rectangular in shape and the soft facing material 16 extends substantially throughout the length of said body. The body 15 has its upper and lower edges rolled to form resultant upper and lower tubular guides 17 and 18 which extend throughout the length of the body. Mounted in one end of each of the guides 17 and 18 are anchor pins 19 and 20 which are rigidly secured therein by solder or other means, the pins projecting outwardly beyond the associated end of the body 15 and having their extreme ends pointed for engagement with the wall 6 of the tray. Mounted in the other ends of the guides 17, 18 are retractible anchor pins 21, 22 and coil springs 23, 24 which function to yieldably urge the pins 21, 22 beyond the associated end of the body 15. These retractible pins 21, 22 are also provided with pointed outer ends for engagement with the wall 7 of the tray. In order that both retractible pins 21, 22 may be moved simultaneously, I have provided a cross rod 25 which is soldered to the projecting ends of the pins, the end of the cross rod terminating in a finger piece 26 which projects above the body 15. In order to assist in guiding the pins 21, 22, the cross rod 25 is formed into a longitudinally slotted guide or loop 27 which has sliding contact with a guide pin 28 fixed to the body 15.

In operation, the tray is placed at an inclination, and if both followers are to be used, the follower B is first placed in the tray at the lower end thereof, as shown in Figures 1 and 5. Eggs 29 are then positioned within the tray and in advance of the follower B. After a predetermined quantity of eggs have been thus positioned, the follower C is positioned in the tray at the upper end thereof and is then shifted longitudinally with respect to the tray until the follower contacts the upper row of eggs whereby the eggs will be disposed in compact relation and thereby firmly held against relative movement. When adjusting the follower C it is only necessary for the operator to engage the fingerpiece 26 and retract the pins 21, 22 and shift the follower to its desired position in contact with the eggs, and

then release the fingerpiece whereby the anchor pins 19, 20 and 21, 22 will frictionally engage the side walls 6 and 7 of the tray and retain said follower in its adjusted position. By providing the followers with egg contacting surfaces of soft material all danger of breaking the eggs is avoided and furthermore the soft material functions to better position the eggs in firm contact with one another.

As previously stated, either of the followers may be used if desired. Under these circumstances, the eggs are placed in the tray in transverse rows, the first row being positioned in direct contact with the lower end wall of the tray. After the tray has been filled, a small space between the top row of eggs and the upper end wall of the tray will exist, and either one of the followers may be positioned in said space to retain the eggs in firm contact with one another.

It will also be apparent that two of the followers B, or two of the followers C, may be employed with a given tray, one of the followers being positioned against the lower end wall of the tray and the other being positioned between the top row of eggs and the upper end wall of the tray.

It is of course to be understood that the details of structure and arrangement of parts may be variously changed and modified without departing from the spirit and scope of my invention.

I claim:

1. The combination with an egg tray including side walls and an end wall, of a normally stationary transverse follower located between the side walls and having yieldable contact with said end wall and of a length for simultaneously engaging a plurality of eggs, and a second transverse follower located between and yieldably engaging the side walls, whereby said followers may be yieldably opposed to each other and the eggs therebetween in any spaced or angular relation necessary to properly grip said eggs.

2. The combination with an egg tray including side walls and an end wall, of a normally stationary transverse follower located between the side walls and having yieldable contact with said end wall and of a length for simultaneously engaging a plurality of eggs, and a second transverse follower located between and yieldably engaging the side walls whereby said followers may be yieldably opposed to each other and the eggs therebetween in any spaced or angular relation necessary to properly grip said eggs, each follower including a relatively stiff body and a relatively soft egg-contacting facing.

3. A follower for egg trays comprising a sheet metal body having spaced upper and lower anchor pins rigidly secured to the body and projecting outwardly beyond one end thereof, said body having spaced upper and lower guides extending longitudinally thereof adjacent the other end, retractible anchor pins slidably mounted in said guides, a cross rod rigidly connecting the projecting parts of the pins, and a coil spring mounted in one of said guides for normally urging the rectractible pins outwardly.

4. A follower for egg trays comprising a sheet metal body having spaced upper and lower anchor pins rigidly secured to the body and projecting outwardly beyond one end thereof, said body having spaced upper and lower guides extending longitudinally thereof adjacent the other end, retractible anchor pins slidably mounted in said guides, a cross rod rigidly connecting the projecting parts of the pins, a coil spring mounted in one of said guides for normally urging the retractible pins outwardly, and a fingerpiece fixed to the upper pin and projecting above the body for retracting both pins simultaneously.

5. A follower for egg trays comprising a sheet metal body having spaced upper and lower anchor pins rigidly secured to the body and projecting outwardly beyond one end thereof, said body having spaced upper and lower guides extending longitudinally thereof adjacent the other end, retractible anchor pins slidably mounted in said guides, a cross rod rigidly connecting the projecting parts of the pins, a coil spring mounted in one of said guides for normally urging the retractible pins outwardly, a guide pin fixed to the body and extending outwardly from one face thereof, and a longitudinally slotted guide forming part of said cross rod and engageable with said guide pin.

6. The combination with an egg tray including side walls and an end wall, of a normally stationary transverse follower located between the side walls at one end of the tray and comprising a stiff, resilient material faced body extending across the width of the tray for simultaneously engaging a plurality of eggs, and a long leaf spring attached centrally to the body and having its free ends yieldably engaging at the respective sides of said end wall; and a second transverse follower adjustably opposing said stationary follower and eggs therebetween and comprising a stiff resilient faced body extending across the width of the tray and having sharp pointed pins projecting from its ends and means for yieldably holding the pins projected against the tray side walls to permit adjustment of the spaced and angular relation of said followers as occasion may demand.

HERBERT H. REINERS.