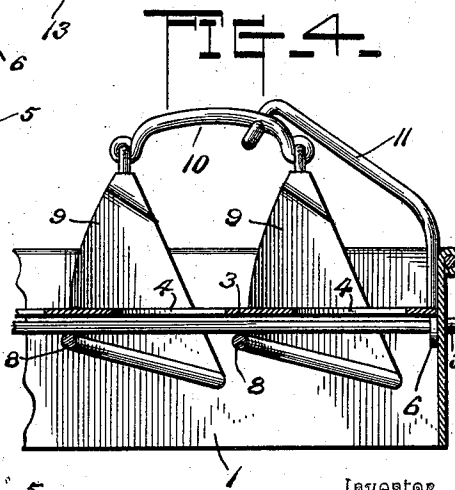
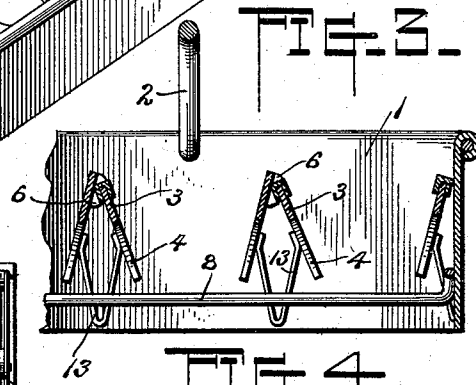
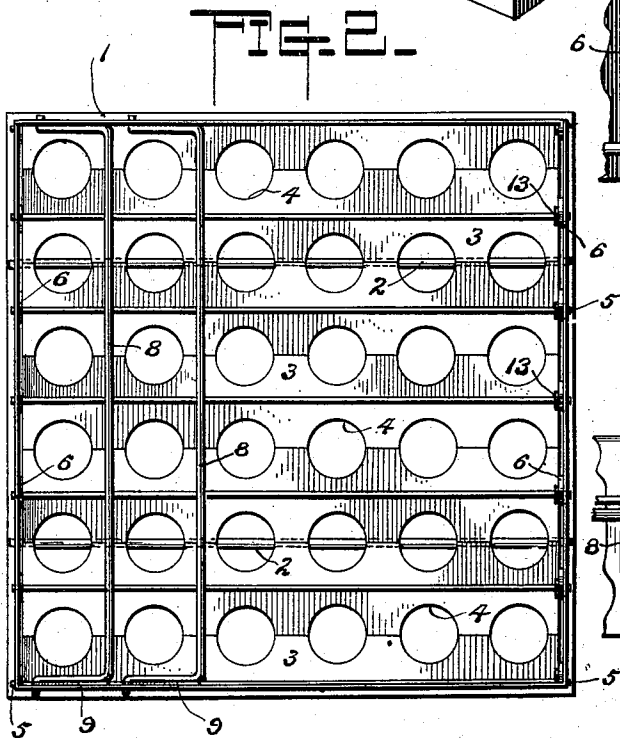
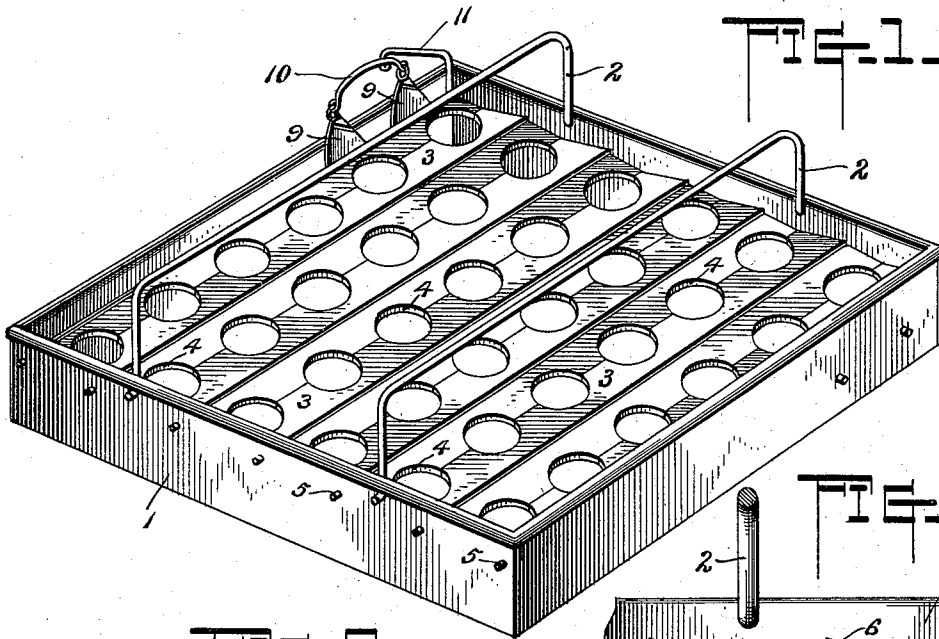


(No Model.)

H. C. TIMMS.
EGG TESTER.

No. 588,736.

Patented Aug. 24, 1897.



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HENRY CLAY TIMMS, OF MALTA, OHIO.

EGG-TESTER.

SPECIFICATION forming part of Letters Patent No. 588,736, dated August 24, 1897.

Application filed October 8, 1896. Serial No. 608,271. (No model.)

To all whom it may concern:

Be it known that I, HENRY CLAY TIMMS, a citizen of the United States, residing at Malta, in the county of Morgan and State of Ohio, have invented a new and useful Combined Dumping-Tray and Egg-Tester, of which the following is a specification.

The invention relates to improvements in combined dumping-trays and egg-testers.

The object of the present invention is to improve the construction of combined dumping-trays and egg-testers and to provide a simple, inexpensive, and efficient device which will form an effective egg-tester and which will retard and cushion eggs when the latter are dumped to prevent them from being broken when transferred from the egg-tester to the ordinary trays or egg-holders of an eggcrate.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a combined dumping-tray and egg-tester constructed in accordance with this invention. Fig. 2 is a reverse plan view of the same. Fig. 3 is a vertical sectional view, the hinged egg-supporting slats being swung downward. Fig. 4 is a similar view taken at right angles to Fig. 3, the egg-supporting slats being arranged horizontally.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a rectangular tray-frame constructed of sheet metal or other suitable material and preferably stiffened at its upper edges by a bead or wire and is provided with a pair of hinged bails 2, by means of which the combined dumping-tray and egg-tester is carried. Within the rectangular frame is hinged a series of egg-supporting slats 3, journaled or pivoted at their ends on the tray-frame and provided at their free edges with semicircular notches or recesses 4, adapted to form circular openings to receive the points of eggs when the egg-supporting slats are arranged in a horizontal position.

The egg-supporting slats, with the exception of the two end ones, are hinged in pairs,

and their adjacent hinged edges are straight. Any suitable means may be provided for hinging the egg-supporting slats in pairs, but one member of each pair is preferably provided with pintles 5, arranged in suitable perforations of the adjacent sides of the tray-frame, and the other member of the pair is provided with depending eyes 6, arranged on the pintles or journals 5, so that one set of pintles or journals does for two egg-supporting slats. The egg-supporting slats, which are provided with the depending eyes 6, overlap the slats which carry the pintles or journals in order to exclude light at the hinged edges of the slats, and thereby render the egg-tester more effective.

When the egg-holding slats are arranged in a horizontal position, they are supported by two or more rock-shafts 8, disposed transversely of the egg-supporting slats and journaled at their ends in suitable perforations of the adjacent sides of the tray-frame. Each rock-shaft is provided with a rectangular bend extending from one side of the tray to the other and adapted to swing downward to permit the slats to drop and discharge the eggs, and each rock-shaft is provided with an upwardly-extending arm 9. The upwardly-extending arms 9, which are preferably constructed of sheet metal and which are arranged flat against the inner face of the adjacent side of the tray-frame, are connected at their upper ends by a curved link 10, which engages a catch or support 11. The catch or support 11 consists of an arm extending upward from the tray-frame and provided with a laterally-disposed projection arranged to receive and support the link, and the latter, which is hinged at its ends to the arms 9, is adapted to swing laterally to engage and disengage the support or catch.

When the link is sprung out of engagement with the support or catch, the slats drop by gravity, and in order to prevent the slats from swinging downward to a perpendicular position springs 13 are provided. The springs 13, with the exception of the end ones, are arranged in pairs, as shown, and are secured to the inner face of one side of the tray-frame; but springs may be provided at the opposite side of the tray-frame, if desired or found necessary. The springs 13, which are located

beneath the pairs of hinged slats, are preferably constructed of a single piece of resilient wire or other material and have their upper ends free. Each pair of springs or arms 13 diverge upwardly, forming a substantially V-shaped spring, and they are adapted to cushion the slats and check the descent of the eggs sufficiently to prevent them from falling into a tray or holder with too great a force. The springs which cause the egg-supporting slats to converge downwardly and yieldingly engage the edge also hold the egg-supporting slats at a sufficient angle to enable them to be readily swung upward to a horizontal position by the rock-shafts.

In testing eggs the combined dumping-tray and egg-tester is filled with eggs and is held over a suitable light to enable the condition of the eggs to be readily ascertained, and after the eggs are tested the device, which is constructed of the same size as the ordinary paper egg holder or tray, is placed over the same and the eggs are allowed to drop in the compartments thereof. The paper egg holders or trays are arranged in a crate in the usual manner, being separated by sheets of paper or pasteboard, and as soon as one paper egg holder or tray is supplied with eggs from the egg-tester a sheet of paper or pasteboard is placed upon the top of the same and another egg holder or tray is placed in position to receive eggs. In this manner a crate may be quickly filled with tested eggs.

It will be seen that the combined dumping-tray and egg-tester is exceedingly simple and inexpensive in construction, that it forms an effective egg-tester, and that it cushions the eggs in dropping them into a crate. It will also be apparent that the springs which cushion or retard the eggs when they are dumped into a crate also operate to hold the egg-supporting slats at an inclination in order that they may be readily swung upward by the rock-shafts.

What I claim is—

1. In a combined dumping-tray and egg-tester, the combination of a tray-frame, and a series of egg-supporting slats arranged in pairs in the tray-frame and adapted to swing downward to dump the eggs, one member or slat of each pair being provided with pintles or journals, and the other member having eyes to receive said journals and overlapping the adjacent edge of the slat or member having the journals to exclude light, and means for supporting the slats in a horizontal position and for dumping them, substantially as described.

2. In a combined dumping-tray and egg-tester, the combination of a tray-frame, a se-

ries of hinged egg-supporting slats arranged in pairs, mounted in the tray-frame and adapted to swing downward to dump eggs, a rock-shaft journaled on the tray-frame, located beneath the egg-supporting slats and provided with a rectangular bend arranged to engage the same, whereby they are swung upward and are also held in a horizontal position, and means for operating the rock-shaft and for locking the slats in a horizontal position, substantially as described.

3. In a combined dumping-tray and egg-tester, the combination of a tray, a series of egg-supporting slats arranged in pairs, each pair being hinged at their adjacent edges and adapted to swing downward to dump the eggs, and cushioning-springs engaging the slats and causing them in dumping to converge downwardly at opposite sides of the eggs and yieldingly engage the same to break the fall of the eggs, substantially as and for the purpose specified.

4. In a combined dumping-tray and egg-tester, the combination of a tray-frame, egg-supporting slats disposed in pairs, each pair being hinged at their adjacent longitudinal edges in the tray-frame and arranged to swing downward to dump the eggs, springs mounted on the tray-frame, located beneath the hinges of the slats and adapted to be engaged by the latter when the eggs are dumped, said springs being arranged to support the slats in an inclined position, and a rock-shaft journaled on the tray-frame transversely of the slats, located beneath the same and provided with a rectangular bend adapted to engage them and swing them upward, substantially as described.

5. In a combined dumping-tray and egg-tester, the combination of a tray-frame, hinged egg-supporting slats adapted to swing downward to dump the eggs, a pair of rock-shafts journaled on the tray-frame, located beneath the slats and provided with rectangular bends to engage the same, said rock-shaft having upwardly-extending arms arranged at one side of the frame, a link connecting the arms, hinged to the same and arranged to swing laterally, and the support or catch arranged on the tray-frame and arranged to be engaged by the said link, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY CLAY TIMMS.

Witnesses:

W. C. BARRELL,
J. W. ROGERS.