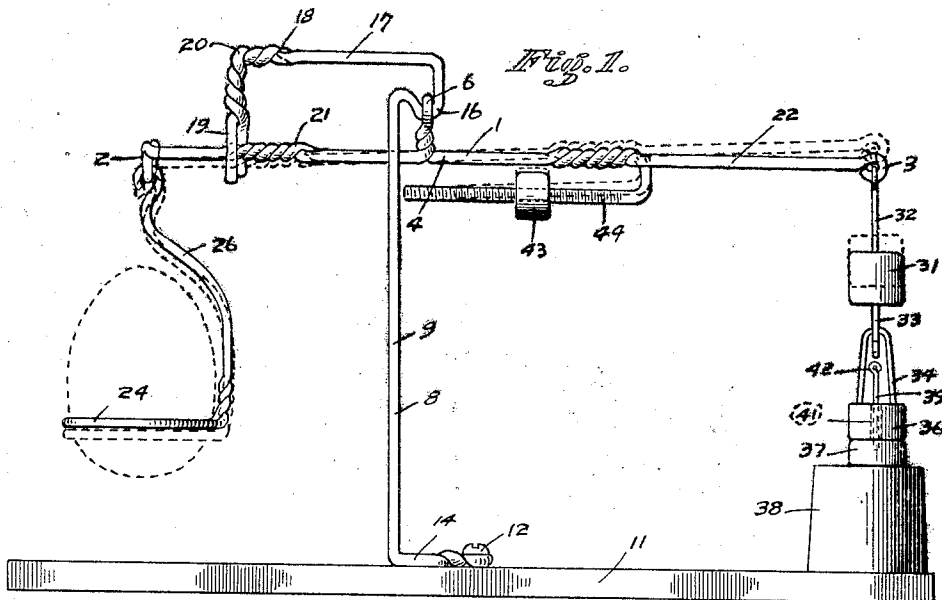
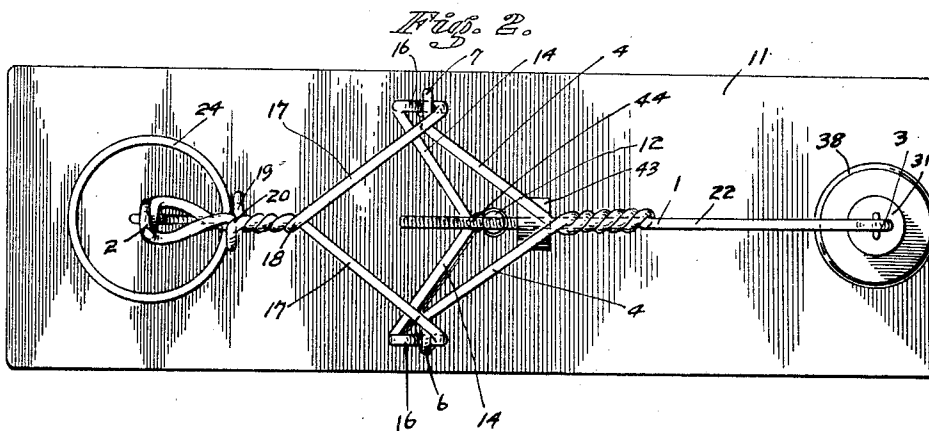


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E. GOODWIN
AUTOMATIC EGG GRADER
Filed Jan. 5, 1922



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UNITED STATES PATENT OFFICE.

EDWARD GOODWIN, OF FOLSOM, CALIFORNIA.

AUTOMATIC EGG GRADER.

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To all whom it may concern:

Be it known that I, EDWARD GOODWIN, a citizen of the United States, and a resident of Folsom, county of Sacramento, and State of California, have invented a new and useful Automatic Egg Grader, of which the following is a specification.

The present invention relates to improvements in grading devices and has particular reference to a device for grading eggs. Its principal object is to provide a simple means whereby eggs can be quickly graded according to their weight. Another object is to provide a grader that is simple and economic in construction, does not require any adjustments for the weighing of each individual egg, but automatically indicates the grade of the egg immediately after the same has been placed on the grader.

The preferred form of my device is illustrated in the accompanying drawing in which Figure 1 represents a side elevation of my device and Figure 2 a top plan view of the same.

The balancing lever (1) is made of a single piece of wire forming loops (2) and (3) at its ends and a diamond (4) intermediate of its length, the latter having loops (6) and (7) rising from its extreme corners. This lever is pivotally supported on the standard (8) also preferably made of a single piece of wire and forming two upright members (9) secured to the base (11) by means of the screw (12) engaging the horizontal member (14) connecting the upright members, hooks (16) bent into the wire adapted to engage the loops (6) and (7) and the two horizontal upper members (17) engaging each other at (18) where they are twisted together. This twisted portion is bent downward at (20) and ends into the fork (19) adapted to engage the arm (21) of the lever (1) whereby the latter is prevented from rising above a level position under the influence of the other arm (22) and the weight secured thereto. From the end of the arm (21) is suspended the ring (24) connected thereto by the wire (26). The ring is of such dimension that it will easily hold an egg placed thereon.

The arm (22) carries the weight (31) which is pivotally suspended therefrom. The weight is provided with loops (32) and (33), the former extending upwardly and engaging the loop (3) at the end of the lever arm (22), while the latter extends

downwardly and engages a similar loop (34) rising from a second weight (36). This weight normally rests on a third weight (37) supported on a block (38), which latter weight is provided with an upwardly extending rod (39) passing through a perforation (41) in the weight (36) and provided with a head (42) locking it to the latter weight, but allowing the latter a limited freedom of vertical motion before engaging the third weight.

In operation the eggs to be graded are successively placed on the ring (24). It is assumed that it is desired to establish three grades corresponding to the weight of (31) alone, of (31) and (36) combined and of (31), (36) and (37) combined. When a light egg is placed on the ring, it may raise the weight (31), but will not raise the weight (36). A medium weight egg will raise both the weights (31) and (36), while only a heavy egg will raise all three weights. Sufficient play is allowed between the weights so that the weights distinctly indicate the grade of the egg.

To enable the operator to balance the device before the weights are attached, I provide a threaded sleeve 43 on a threaded arm 44 forming part of the lever 1. The threaded arm extends preferably beyond the fulcrum of the lever, as shown in the drawing so that the sleeve 43 may be adjusted to bear down on either one of the arms of the lever.

I claim:

1. In an egg grader of the character described, the combination of a balancing lever having an egg receptacle suspended from one end so that the same is normally balanced by the other end and a selective weight system associated with said other end comprising a lower weight normally resting on a stationary support, a second weight normally resting on the lower weight, a rod extending from the lower weight through the second weight having a head thereon adapted to limit the travel of the second weight relative to the lower weight, a hook extending upwardly from the second weight, and a third weight suspended from the lever arm having a downwardly extending hook engaging the former hook for limiting the travel of the third weight relative to the second weight.

2. An egg grader comprising a base, two wire standards rising from the same in

spaced relation each terminating in a hook, a balancing lever consisting of wire bent into diamond shape with loops provided at two opposing corners adapted to engage
5 the hooks of the standards and rectilinear extensions emanating from the two other corners, an egg receptacle suspended from one of the extensions and a weight suspended from the other extension.

10 3. An egg grader comprising a base, two wire standards rising from the same in spaced relation each forming a hook at its upper end and both extending beyond the

hooks and terminating in a downwardly pointing fork, a balancing lever consisting
15 of wire bent into diamond shape with loops provided at two opposing corners adapted to engage the hooks of the standards and rectilinear extensions emanating from the
20 two other corners, one of the extensions being adapted to engage the fork for limiting its upward motion and having an egg receptacle suspended therefrom and the other extension having a weight associated therewith.

EDWARD GOODWIN.