

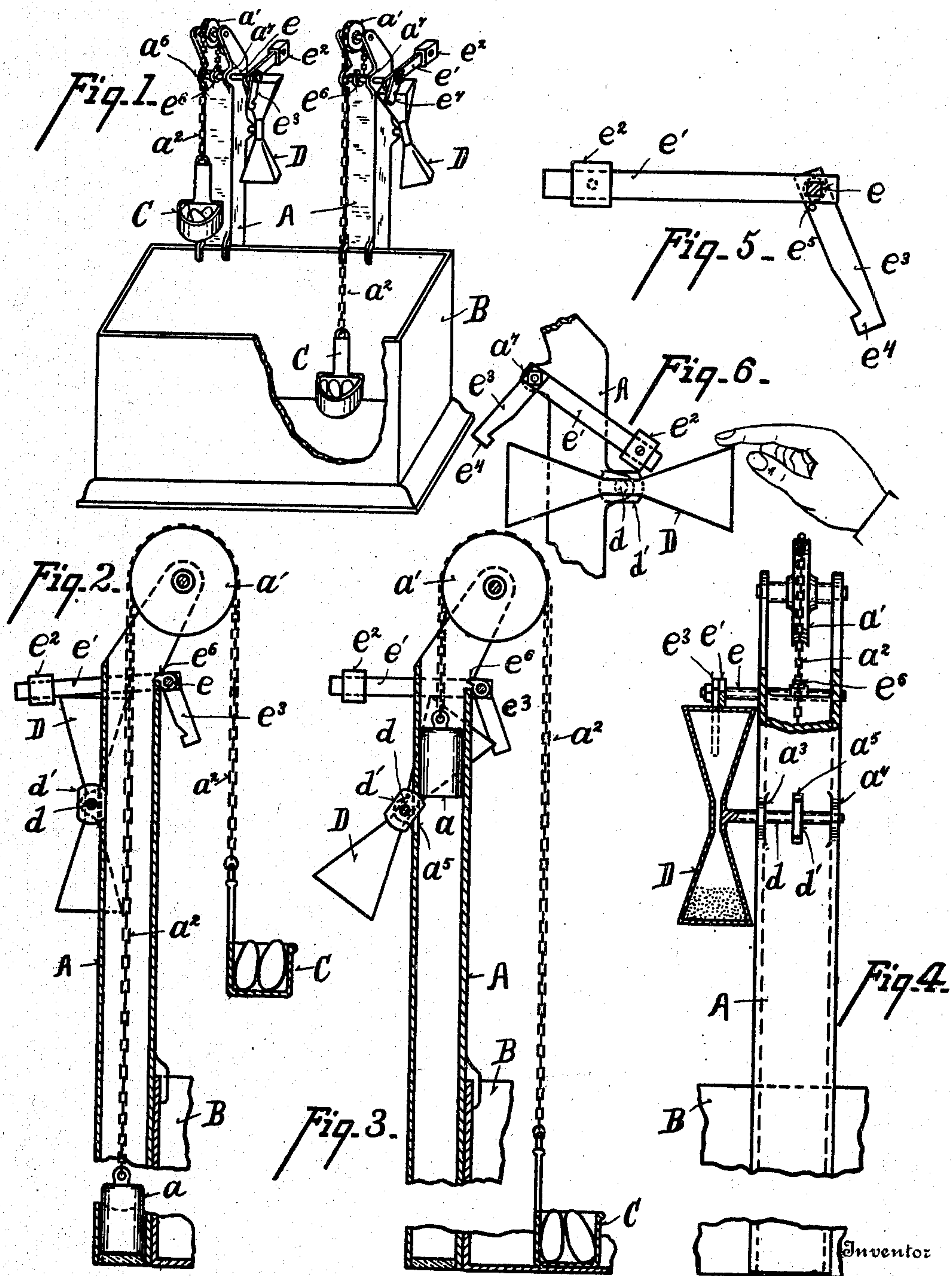
No. 681,184.

Patented Aug. 27, 1901.

C. H. BLANCHARD.
AUTOMATIC EGG BOILER.

(Application filed Apr. 8, 1901.)

(No Model.)



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AUTOMATIC EGG-BOILER.

SPECIFICATION forming part of Letters Patent No. 681,184, dated August 27, 1901.

Application filed April 8, 1901. Serial No. 54,824. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. BLANCHARD, a citizen of the United States of America, and a resident of Batavia, in the county of Clermont and State of Ohio, have invented certain new and useful Improvements in Automatic Egg-Boilers, of which the following is a specification.

The object of my invention is to provide an egg-boiler for automatically lifting a vessel holding eggs out of the liquid which has boiled them, after a predetermined period, which is accurate in its operation, simple in its construction, always ready for use, the setting of which requires a minimum amount of time, and which may easily be changed for varying the time of immersion of the eggs. This object is attained by the means described in the annexed specification and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of two of my egg-boilers attached to a side of a vessel, one of the boilers being shown set and the other after it has raised the vessel containing the eggs. Fig. 2 is a central transverse sectional view through one of the boilers, showing it in its raised position. Fig. 3 is a similar view of the same, showing it set. Fig. 4 is a view in rear elevation of the vertical column which guides the weight and in section of the timepiece. Fig. 5 is a detail view, upon an enlarged scale, of the latch which engages the timepiece and of the arm and the movable weight the changing of which upon the arm varies the length of the period of immersion. Fig. 6 is a detail view, in side elevation, showing the operation of setting the timepiece.

Referring to the parts, vertical column A, within which slides an overbalancing-weight a , may be secured to the side of any suitable vessel B, within which the boiling liquid is held. Column A has at its upper edge two upwardly and outwardly projecting lugs, which support a shaft upon which is journaled a pulley a' , over which passes a cord or chain a^2 for connecting weight a and receptacle C, within which the eggs to be boiled are placed.

Column A has upon its rear side two lugs $a^3 a^4$, in which is journaled a shaft or fulcrum d , upon one end of which is secured timepiece D. Timepiece D is in the shape of an

hour-glass—that is, consists of two equal closed vessels, connected by a contracted neck, through which sand or other substance will flow at a fixed rate from one to the other of said vessels. Upon shaft d , between lugs $a^3 a^4$, is a trigger d' , opposite which is a vertical slot a^5 in the rear wall of the column, through which the trigger may project underneath weight a to support it in its upper position, as shown in Fig. 3.

At the upper edge of column A, upon the front face, are two forwardly-projecting lugs $a^6 a^7$, between which is journaled a shaft e , the outer end of which is square and fits a square hole in rearwardly-projecting arm e' , upon which is a weight e^2 . Upon shaft e , adjacent to arm e' , is journaled a latch e^3 , which has a detent e^4 at its outer end to engage the upper edge of timepiece D. Latch e^3 has a rounded enlarged hole to pass shaft e , so as to turn thereon, and a pin e^5 , which abuts against the lower edge of arm e' , to keep latch e^3 from hanging down vertically when it is not engaging timepiece D. Shaft e has an inwardly-projecting detent e^6 , which engages the upper edge of column A to hold arm e' in position shown in Fig. 6 when not resting on top of timepiece D.

In use, the sand being collected in one end of timepiece D, receptacle C, containing the eggs, is lowered into the water, thereby carrying weight a up, as shown in Fig. 3, and timepiece is rotated to bring the end containing the sand up to engage latch e^3 , thereby bringing trigger d' beneath weight a . Latch e^3 automatically engages the upper edge of vessel D when it in its rotation raises arm e' . The sand immediately begins running into the lower end of vessel D, and when sufficient sand has run into the lower end its weight throws vessel D to a vertical position, thereby releasing weight a , which falls and carries egg-receptacle up out of the water, as shown in Fig. 2. As is seen, when weight e^2 is slipped nearer shaft e it requires less sand in the bottom of vessel D to bring it to a vertical position and the time of immersion is thereby shortened. The points upon arm e' at which weight e^2 must be placed to insure certain periods of immersion are marked upon the arm, so that the only change to be made to have hard, medium, or soft boiled eggs is to

shift weight e^2 to the point so marked on arm e' .

It is of course obvious that many mere mechanical changes might be made in the means shown without departing from the spirit or scope of my invention—as, for instance, it would be but an inferior modification of my invention to substitute for the pulley a lever with the weight attached to one end and the egg-receptacle to the other, as a pulley is a form of lever.

What I claim is—

1. In an egg-boiler the combination of an egg-receptacle, a weight to be carried downward in its path by gravity, a pulley, a cord passing over the pulley and connected at one end to the weight and at the other to the receptacle, a shaft journaled near the path of the weight and having a trigger to retain the weight against the action of gravity, a timepiece upon the shaft consisting of closed vessels connected by a contracted neck and containing a substance to flow from one to the other of said vessels at a fixed rate, and a latch to hold the timepiece at an angle to the vertical and the trigger in engagement with the weight, substantially as shown and described.

2. In an egg-boiler the combination of a vertical hollow column, a weight to slide therein, a pulley journaled at the upper end of the column, a shaft journaled upon the side of the column and having a trigger to project underneath the weight to hold it raised, a timepiece consisting of two closed vessels connected by a contracted neck secured to the shaft in a position such that when the trigger is in the path of the weight the time-

piece is at an angle to the vertical, a substance within the timepiece which will flow from one to the other of the vessels at a uniform rate of speed, a latch to engage the timepiece and hold it at the angle to the vertical while the greater weight of the flowing substance is in the upper vessel, an egg-receptacle and a cord passing over the pulley and connected at one end to the weight and at the other to the egg-receptacle, substantially as shown and described.

3. In an egg-boiler the combination of a hollow column, a weight to be carried downward in the column by the action of gravity, a pulley journaled above the weight, an egg-receptacle, a cord passing over the pulley and connected at one end to the weight and at the other to the pulley, a shaft journaled upon the side of the column, a trigger upon the shaft to project beneath the weight, a timepiece consisting of two closed vessels connected by a contracted neck and containing a substance which will flow from one of said vessels to the other at a uniform rate secured upon the shaft in a position such that when the timepiece is at an angle to the vertical the trigger projects beneath the weight, a latch to hold the timepiece at the angle to the vertical while the upper end is the heavier, an arm to rest upon the upper end of the timepiece while it is in said position and a weight to be fixed at various points upon said arm, substantially as shown and described.

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