No. 652,884. Patented July 3, 1900.

J. D. BROTHERSTON.

WATER MOTOR FOR EGG BEATERS, &c.

(Application filed Mar. 9, 1900.)

(No Model.)

FIG. 1.

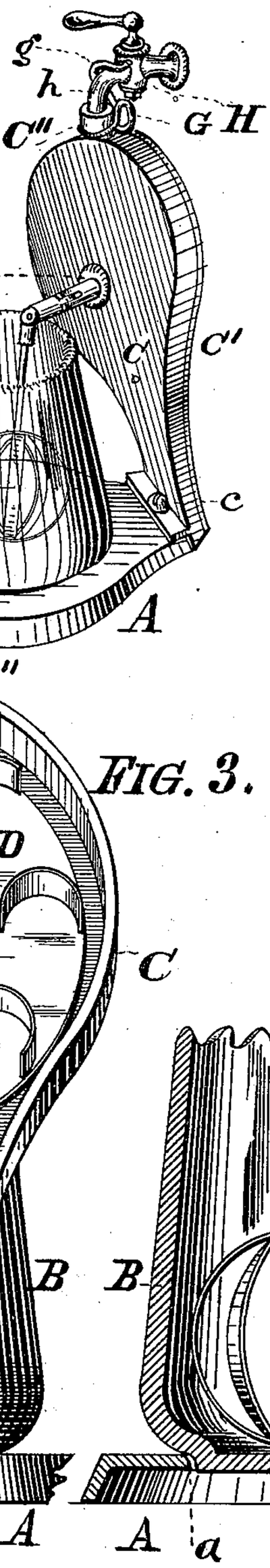

FIG. 4.

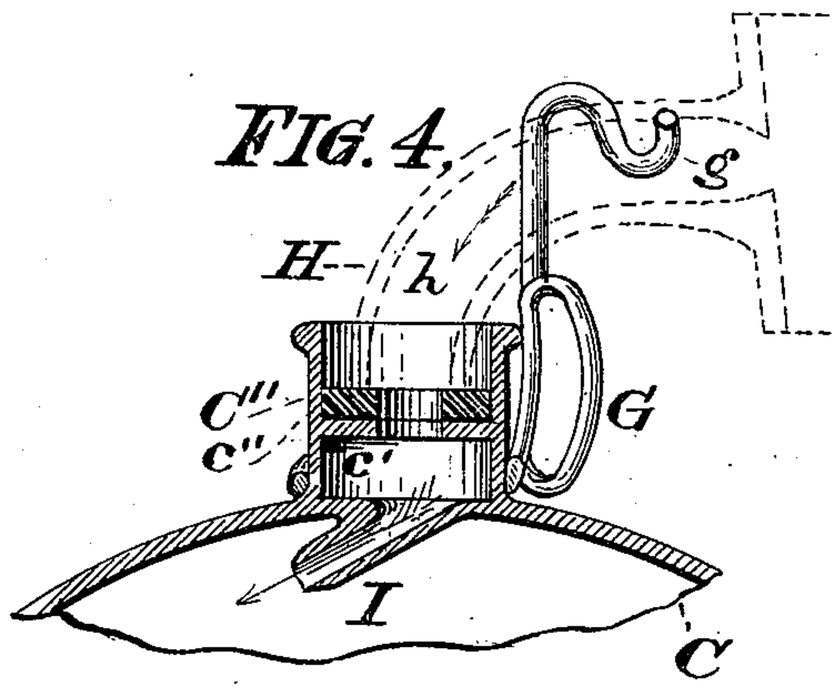

FIG. 2.

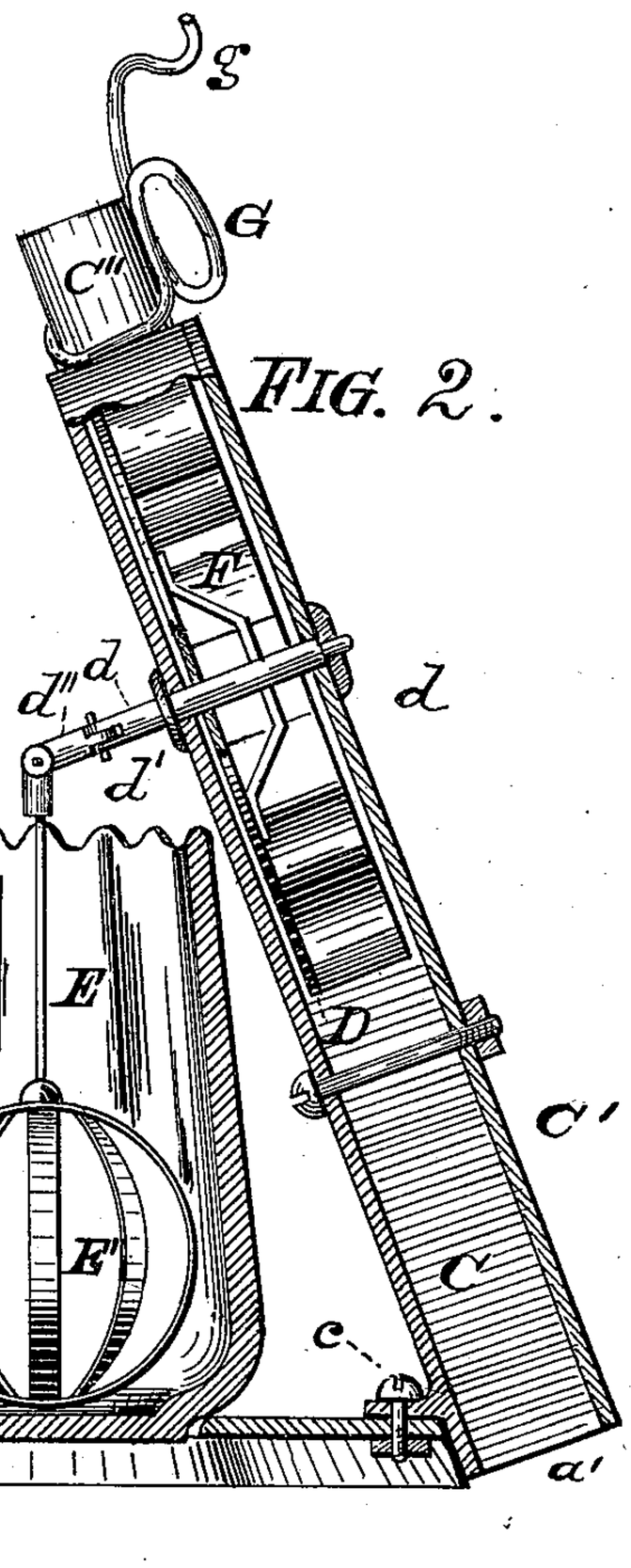

FIG. 3.

Witnesses:

C. H. Stark.

Julian Stark.

Inventor:

John D. Brotherston,

By Michael J. Stark & Sons,

Attorneys.

UNITED STATES PATENT OFFICE.

JOHN D. BROTHERSTON, OF BUFFALO, NEW YORK.

WATER-MOTOR FOR EGG-BEATERS, &c.

SPECIFICATION forming part of Letters Patent No. 652,884, dated July 3, 1900.

Application filed March 9, 1900. Serial No. 7,960. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. BROTHERSTON, a subject of the Queen of Great Britain, and a resident of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Water-Motors for Egg-Beaters, &c.; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to improvements in egg-beaters and cream-whippers; and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described and then pointed out in the claim.

In the drawings already referred to, which serve to illustrate this invention more fully, Figure 1 is a perspective view of my improved egg-beater as attached to a faucet or other water-supply fixture. Fig. 2 is a transverse sectional elevation of the same in line *x x* of Fig. 3. Fig. 3 is an end elevation of the device, part of the cover being broken away to disclose the internal construction. Fig. 4 is a sectional elevation of a fragment of the device, illustrating, on a larger scale, the means for attaching the device to a water-faucet.

Like parts are designated by corresponding letters of reference in all the figures.

The object of this invention is the production of an efficient, serviceable, and comparatively-cheap egg-beater and cream-whipper which is operated by water-power by attaching the device to a water-faucet, as will now more fully appear.

This device consists of a base-plate of any suitable contour, having an opening *a*, Fig. 2, for the reception of a tumbler, saucer, or other suitable vessel B, in which the eggs, cream, or other culinary substance is to be beaten, whipped, stirred, or mixed. To the rear end of this base-plate A is affixed a casing C by means of a screw or other suitable fastening *c*, which casing is obliquely arranged to the base A and constructed to receive a turbine wheel D, secured to an axle *d*, journaled in the wall of the casing and its cover C′, respectively, one end of said axle *d* projecting from the said casing and terminating in a double eye *d′*, to which in turn is pivoted a link *d″*. To this link is pivoted the spindle E, carrying at its lower end beater-arms, paddles, or similar means E′, said link forming, in connection with the axle and spindle, a knuckle-joint, so as to enable the spindle E to readily revolve within the vessel B when the turbine wheel is set in motion.

The turbine wheel D consists of an annular disk or plate D′, upon the face of which are located a series of curved buckets D″, said disk being fastened to the axle *d*, and to further secure the same a spider F, Figs. 2 and 3, is secured to both the axle and the disk, thereby forming a very strong and durable means for attaching the turbine wheel to its axle.

The upper end of the casing C is provided with a socket C″. In this socket there is an inwardly-projecting flange or ledge *c′*, Fig. 4, upon which bears a rubber gasket or packing-ring *c″*, while to the exterior of said socket is securely attached a yielding fastening device consisting of a spring-wire loop or spiral G, terminating in a hook or crook *g*. This hook or crook *g* is adapted to be placed over the gooseneck *h* of a water-faucet H, and thereby to draw the end of said gooseneck into contact with the packing-ring *c″* to make a reasonably-tight joint therewith. The lower end of the casing C is open, so as to produce a downwardly-discharging exit *a′*, Fig. 2.

It will now be observed that this device is constructed to be operated by water-power obtained from the usual water-supply in any kitchen by attaching the same to the usual water-faucet by means of the spring-fastening on the socket of the casing. The eggs to be beaten or the cream to be whipped, &c., are put into the vessel B and the latter then placed upon the base A, into the opening *a* therein, it being understood that the beater or paddles E′ occupy the interior of said vessel B. Now the water-supply is turned on, when a stream issuing from an obliquely-arranged nozzle I, connecting with the interior of the socket C″, impinges upon the curved buckets of the turbine wheel D and causes it to rapidly revolve, and thereby, through the intervention of the knuckle-joint device on

the end of the axle, to revolve the beater within the vessel B. It will thus be seen that the beating of eggs, the whipping of cream, or the stirring of mayonnaise sauce or the batter of cake, &c., is accomplished automatically by the motor mechanism within the casing, thus relieving the cook from one of the most trying and arduous labors and accomplishing the work in a very much shorter time and in a far superior manner than the same can be obtained by manual labor.

This device can be cheaply produced in various manners. For instance, the base, casing, and its cover can be made in the process of casting from iron properly galvanized or otherwise protected from rusting, or these parts may be produced from sheet metal in the process of stamping, either of which resulting in the production of the parts at a very low figure.

The casing is obliquely arranged with reference to the base in order to bring the end of the axle of the turbine wheel near to the center of the receiving vessel B without having said axle project from the casing any farther than necessary to enable the attachment thereto of the link d''. This is an essential feature in a device of the kind described, because it avoids undue friction of the parts and less pivotal motion of the knuckle-joint device than would be possible were the casing arranged to stand at right angles, or nearly so, to the base A.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent of the United States—

As an improved article of manufacture, a water-motor for egg-beaters and the like, consisting, essentially, of an open base, a casing attached thereto and obliquely arranged with reference to said base, a cover secured to said case, a turbine wheel within said casing, a shaft for said wheel having its bearings in said cover and casing respectively, and protruding from the face of said casing, a universal-joint connection on the end of said shaft, and suitable means for removably attaching the said casing to a water-faucet, as and for the object set forth.

In testimony that I claim the foregoing as my invention I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN D. BROTHERSTON.

Attest:

MICHAEL J. STARK,

MICHAEL J. STARK, Jr.