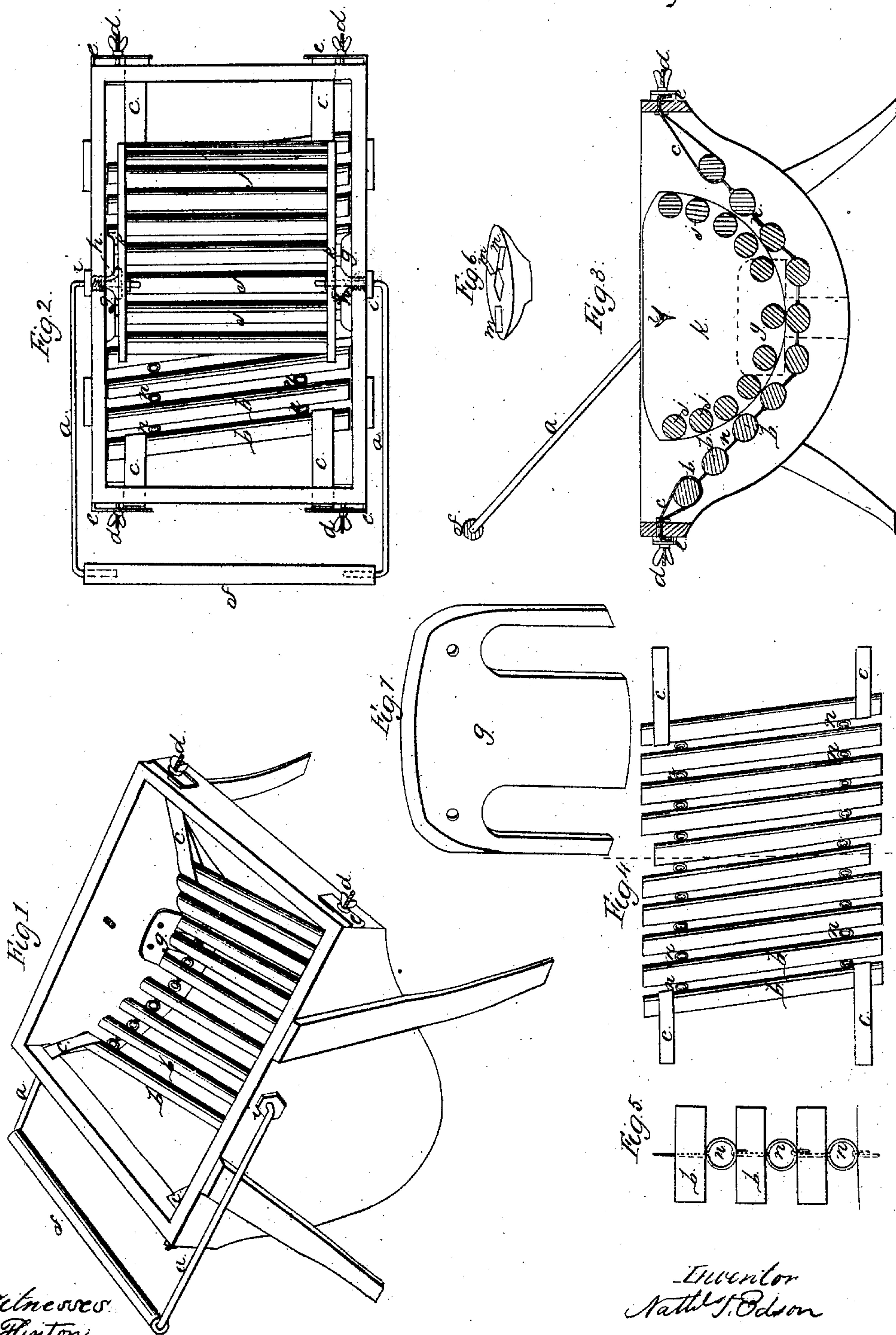


N. T. Edson,

Washing Machine,

No. 76,313,

Patented Apr. 7, 1868.



Witnesses
J. F. Hinton
Chas. Cunningham

Inventor
Nathl. T. Edson

United States Patent Office.

NATHANIEL T. EDSON, OF NEW ORLEANS, LOUISIANA.

Letters Patent No. 76,313, dated April 7, 1868; antedated March 28, 1868.

IMPROVED WASHING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, NATHANIEL T. EDSON, of the city of New Orleans, in the parish of Orleans, and State of Louisiana, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 represents a perspective view of my washing-machine, with its rubber or basket removed.

Figure 2 is a top view of the same, with the basket tilted to one side, showing the cranks *a*, the apron-rounds *b*, the elastic straps *c*, the thumb-nut and screw *d*, the clamps *e*, the handle *f*, the locks *g*, one of which is attached to each side of the machine; the collars *h*, the journal-box *i*, the basket-ends *k*, and basket-rounds *j*.

Figure 3 is a side sectional view, showing the end, *k*, of the basket and the slits *l* into which the projecting points *m* (fig. 6) enter when the cranks are attached.

Figure 4 is a top view of my apron.

Figure 5 is an enlarged view of a part of the apron, showing the ring-joints *n*.

Figure 6 is an enlarged view of the collar *h*, with its projecting points *m*.

Figure 7 is an enlarged view of the lock.

Similar letters indicate corresponding parts in the different figures.

My improvements in washing-machines relate to that class of machines in which suspended aprons are used in connection with cylindrical or semicircular rubbers.

The principal objections to this class of washing-machines, as heretofore constructed, are that their aprons, being only partially suspended by springs, are deficient in elasticity; their slats or rounds, being parallel with the slats of the rubber or basket, cause the clothes to clog and retard the motion of the rubber; their handle, being supported by a single crank only, is deficient in strength and position to be worked; their aprons being held down from the rubber by segments or circles attached to the sides of the machine, whereby the clothes are caught between the circle and the apron, and torn whilst being operated upon.

The object of my improvements in this class of washing-machines is to overcome these difficulties and defects; and this I propose by suspending the apron with four elastic straps, *c*, connected to the ends of the machine; by constructing the apron and baskets so that their rounds will assume a diagonal position to each other; by use of a double crank, to which the handle for working the machine is attached; and by use of the lock, fig. 7, by which tearing the clothes is avoided.

By reference to the accompanying drawings, it will be seen that the nature of my invention for effecting this object consists in fastening the four elastic straps *c* to the ends of the machine; then passing their other ends down and around the outer rounds of the apron; then up and over the fastened ends; then placing the clamp *e* against the straps *c*, and turning the thumb-screw *d* up against the clamps *e*. Also, in making the apron of an even number of rounds, and cutting the two central rounds, at opposite sides of the apron, as much shorter than the others as the thickness of the locks *g*, with the rounds set at such an angle as to bring the cut ends in the central part of the machine. Also, in connecting two cranks *a* to the basket of the machine, by passing the round parts of the cranks into the journal-boxes *i*, and their square parts into the square openings of the collars *h*, and through the ends of the basket, and screwing nuts upon the rounded ends of the cranks against the basket-ends. Also, in forming the lock, fig. 7, with two slots, which are intended to receive the uncut ends of the central apron-rounds, the cut ends fitting the body of the lock between the slots.

My apron, fig. 4, is formed of rounds *b*, and brass wire of a suitable size, with rings formed of such diameter as will give the required space between the rounds, the straight part of the wire having been put through orifices formed in the round, and the end of the wire which protrudes through the round is bent down over the adjoining ring, which is placed against the round, to form a movable joint, and the same process continued until the apron is completed.

In operating my machine, I fill with water to cover the lower rounds of the basket. I then place the larger articles of clothes between the basket and apron; the smaller ones I place in the basket. I then vibrate the

basket from side to side of the machine, by which the clothes under the basket are washed, and those in the basket passed through its larger openings, and are also washed.

Having thus described my invention, I do not confine myself to the use of two slots in the lock G, for a single slot only will answer the purpose, and admit of an equal length of the rounds of the apron. Neither do I confine myself to the obliquely-formed apron for the basket, for rubber can be made with a wind or twist that will place its rounds diagonally with the rounds of the regularly-formed apron.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the apron, fig. 4, with the elastic straps *c*, the clamp *e*, and screw *d*, as specified.
2. The lock *g*, in combination with the apron, as specified.
3. The combination of the rubber or basket with the double crank *a a* and collar *h*, as and for the purpose specified.

Witnesses:

ISAAC T. HINTON,
M. S. CUNNINGHAM.

NATHANIEL T. EDSON.