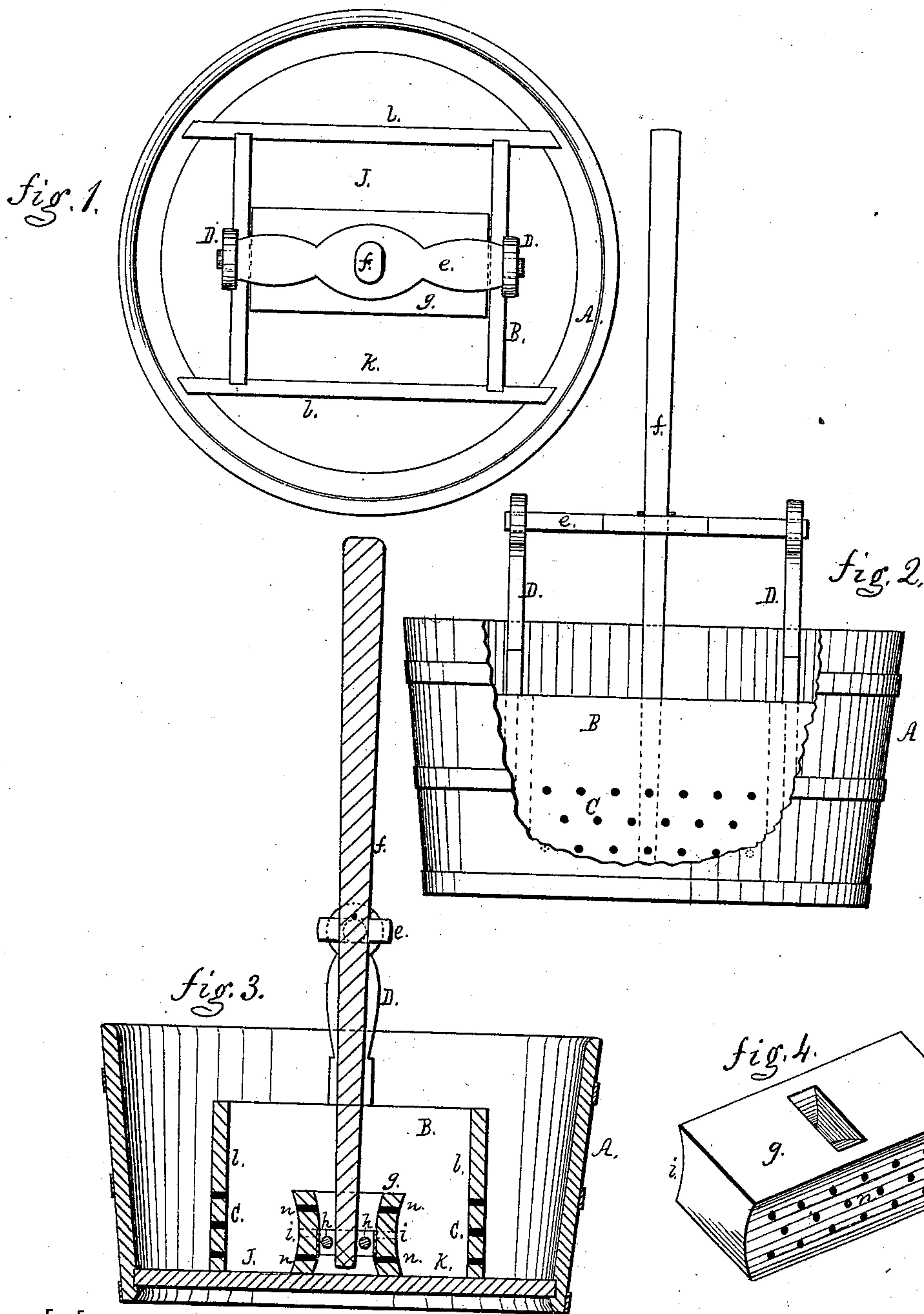


R. CAMPBELL.
Washing-Machine.

No. 216,020.

Patented June 3, 1879.



Witnesses
Geo. F. Turner
A. C. Johnston

Inventor
Robert Campbell

UNITED STATES PATENT OFFICE.

ROBERT CAMPBELL, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **216,020**, dated June 3, 1879; application filed October 7, 1878.

To all whom it may concern:

Be it known that I, ROBERT CAMPBELL, of Pittsburg, county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in washing-machines; and consists of a tub or other water-holding device having a detachable perforated chamber provided with standards, cross-rod, and lever, and a perforated head having concave faces, and provided with friction-rollers, all as will be hereinafter fully described.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings, which form part of my specification, Figure 1 is a top view or plan of my improvement in washing-machines. Fig. 2 is a side elevation of the same, representing a portion of the tub broken away. Fig. 3 is a vertical section of the same. Fig. 4 is a perspective view of the sliding head.

In the accompanying drawings, A represents an ordinary wash-tub, in which is placed the detachable chamber B, which is a rectangular box without top or bottom, having two of its sides perforated, as indicated at *c*.

On two sides of the chamber B are two standards, D, which serve as bearings for the axis of the cross-bar *e*, in the center of which is an opening for the reception of the handle *f*, the lower end of which enters the sliding head *g* between the friction-rollers *h*.

The sliding head *g* has two of its faces made concave, as indicated at *i*, and has a series of openings, *n*, through it for the flow of water through them.

The skilled mechanic will readily understand the construction of the several parts

from the foregoing description and by reference to the accompanying drawings. I will therefore proceed to describe the operation, which is as follows: The chamber B, with its sliding head *g* and operating-lever *f*, being arranged in the tub A as shown in the accompanying drawings, a suitable quantity of water is put in the tub A, and a proper number of pieces of clothes to be washed is soaped and placed in the compartments J and K, and a reciprocating motion imparted to the lever *f*, which will impart like motion to the sliding head *g*, forcing the clothes in the compartments J and K alternately against the sides *l* of the chamber B, which will force the water through the clothes, the perforations *c* and openings *n* allowing the escape of the water as it is forced through the clothes. The concave faces of the sliding head *g* will gradually turn the clothes so as to subject all parts of them to the forcing action of the sliding head *g*.

The washing-machine hereinbefore described will be efficient as a washer, and is simple in construction and not liable to become impaired, and for economy of labor in washing and cost of manufacture will meet the expectation of the public.

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

A washing-machine consisting of a tub or other water-holding device, A, having a detachable perforated chamber, B, provided with the standards D D, cross-rod *e*, and lever *f*, and a perforated head, *g*, having concave faces *i i*, and provided with the friction-rollers *h h*, the several parts constructed and arranged to operate substantially in the manner herein shown and described.

ROBERT CAMPBELL.

Witnesses:

A. C. JOHNSTON,
GEO. F. TURNER.