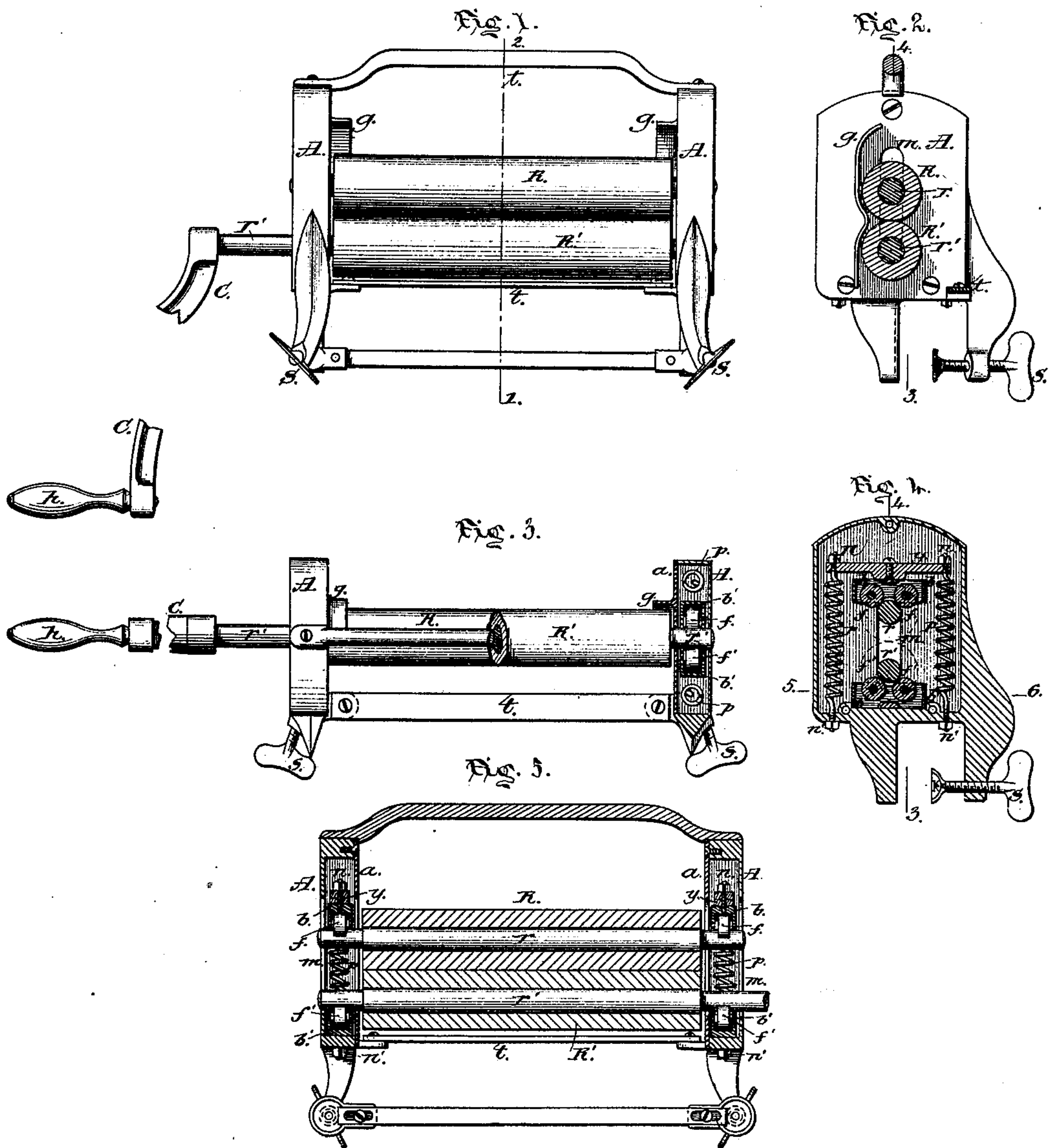


S. F. LEACH.
CLOTHES-WRINGER.

No. 176,230.

Patented April 18, 1876.



Attest:
E. S. Williams
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UNITED STATES PATENT OFFICE.

SAMUEL F. LEACH, OF CHELSEA, MASSACHUSETTS.

IMPROVEMENT IN CLOTHES-WRINGERS.

Specification forming part of Letters Patent No. **176,230**, dated April 18, 1876; application filed December 28, 1875.

To all whom it may concern:

Be it known that I, SAMUEL FREDERICK LEACH, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Clothes - Wringers, of which the following is a specification:

This invention is an improvement in the well-known class of clothes-wringers formed of two elastic rolls arranged to work in frictional contact and rotate in opposite directions with or without the aid of meshing-gears.

The object of my invention is chiefly to reduce the friction incident to the use of such wringers in consequence of the pressure of the springs which hold, or tend to hold, the rolls together. To this end I apply a pair of spiral springs at each end of the rolls, and connect them at their upper ends with a cross-bar carrying small friction-rolls, which are mounted in a small frame and bear on the journal of the upper roll. The journals of the lower roll are supported on similar friction-rolls.

Figure 1 is a view of a machine complete. Fig. 2 is a cross-section through rolls. Fig. 3 is a plan. Fig. 4 is a vertical cross-section, showing springs and rolls. Fig. 5 is a vertical longitudinal section, showing springs and rolls.

A A is the frame of the machine, which frame should be substantially constructed to resist the vibrations of the operating parts. R and R' are the rubber rolls between which the clothes are squeezed. These rolls are provided with iron shafts running longitudinally through the center, said shafts extending

through elongated holes *m m* in each end of frame A A, and resting on friction-rolls *f f* and *f' f'*, the lower shaft *r'*, extending far enough to accommodate the crank C. *h* is the handle. *g g* are fenders secured to side of frame A A to prevent the clothes running off the rubber rolls R R'. *t t* are two bars connecting frame A A. The wringer is secured to the tub by means of thumb-screws S in the usual way. *p p* are spiral springs, connected by nuts *n n* to cross-bar or spring *y* at the top, and to the frame A A at the bottom by nuts *n' n'*. The spring or rod *y* is attached by a screw to the small frame *b b* containing the friction-rolls *f f*, upon the under side of which the shaft *r* revolves. The under frame *b' b'* containing the friction-rolls *f' f'*, and upon the upper side of which the shaft *r'* revolves, is held in position by two projections from frame A A. The clothes to be wrung are grasped by the rolls R R' and carried through, the rolls adjusting themselves to the irregularities of thickness by the upper roll R being hung on spiral springs.

I claim as my invention—

In a clothes - wringer, the combination of the pairs of springs *p p*, top cross-bar *y*, the frames *b* and *b'*, pairs of friction-rollers *f f*, and rubber rolls R R', having journals *e e'* working in vertical slots of the frame A, as shown and described.

SAMUEL FREDERICK LEACH.

Witnesses:

GEO. Z. ADAMS,
SAMUEL STUBBS.