

McKinley & Wilkie

Washing Machine,

N^o 45,331.

Fig: 1. Patented Dec. 6, 1864.

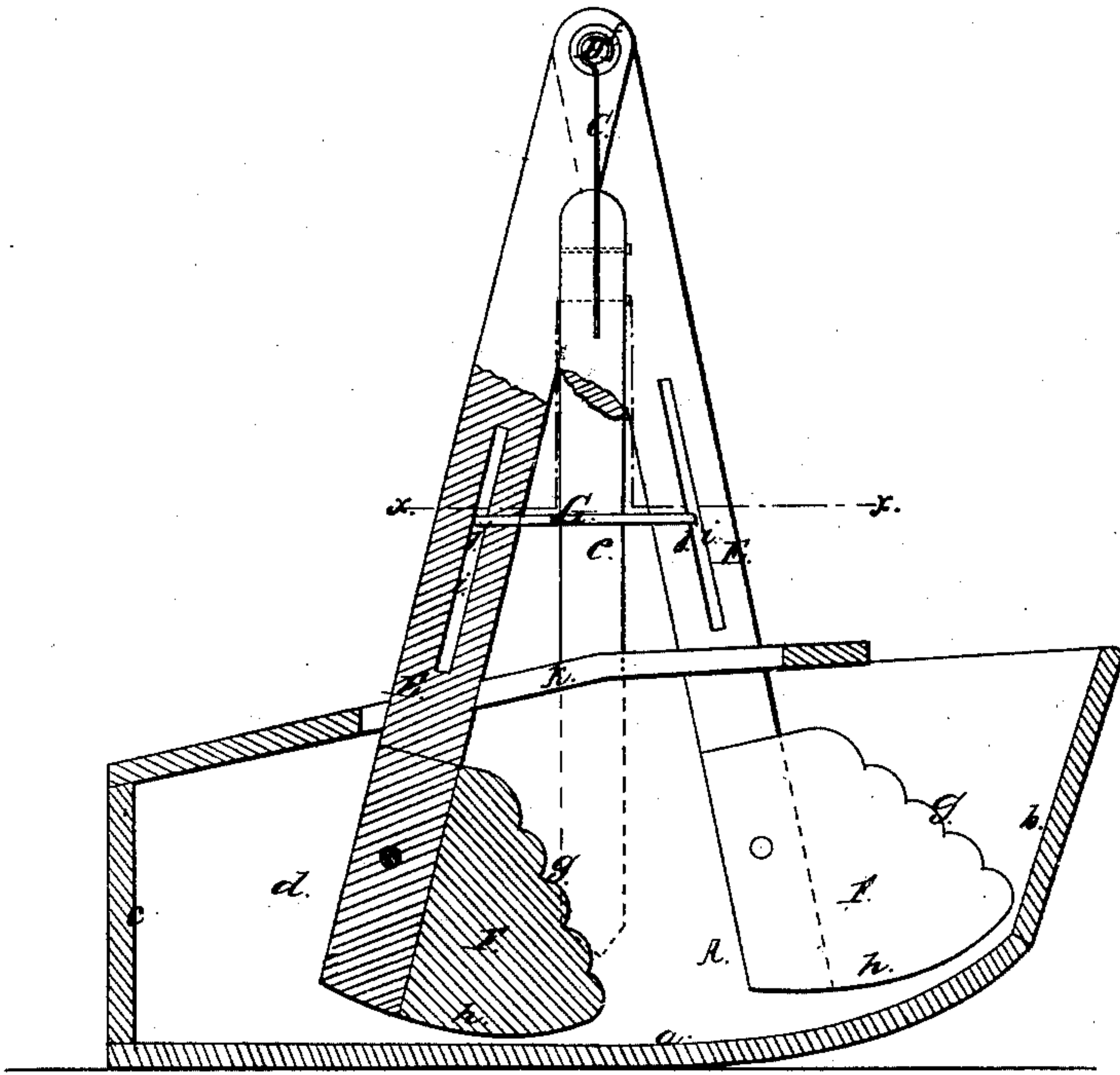
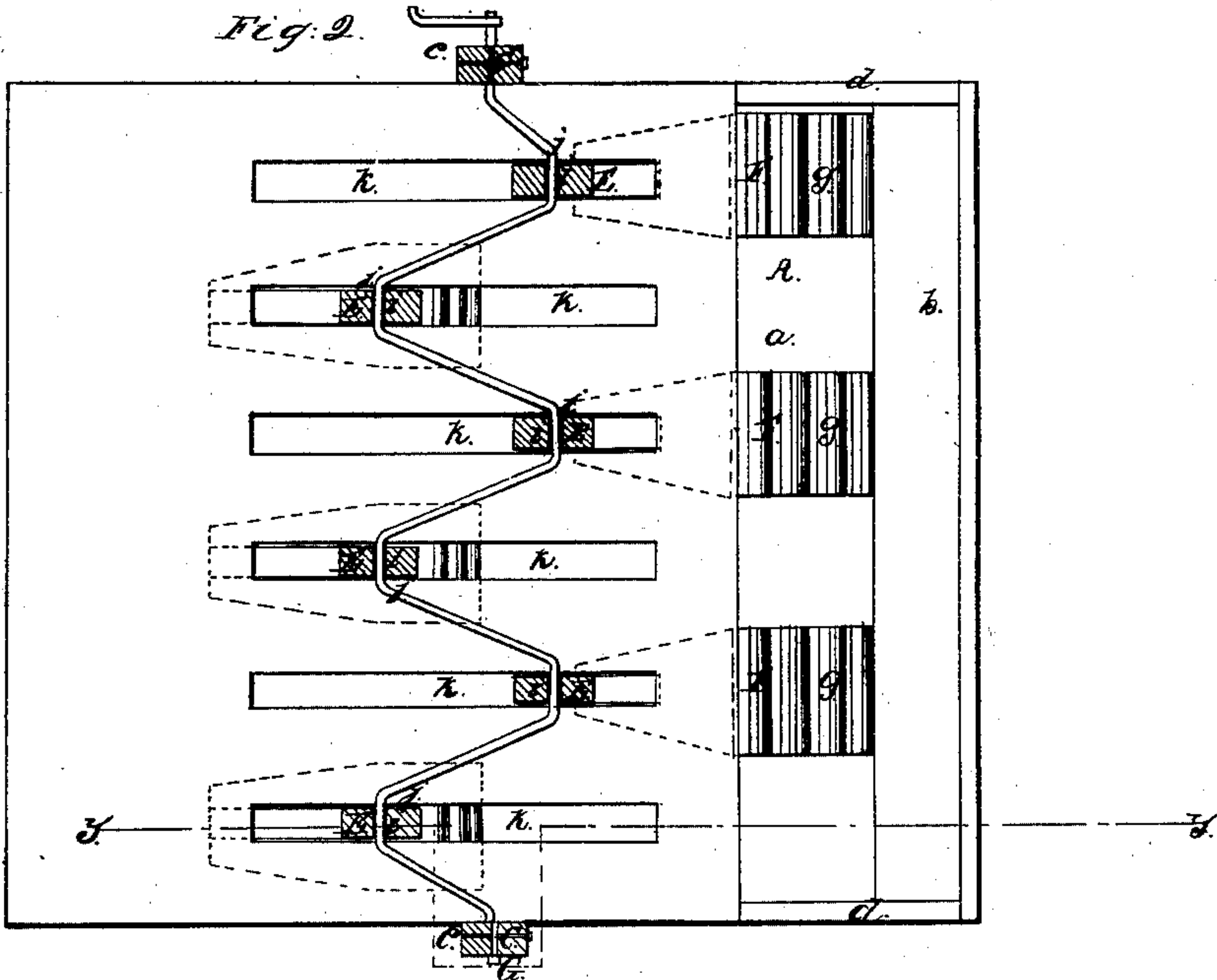


Fig: 2



Witnesses:
Ed Topp
Henry Harri

Inventor's
E. McKinley
W. Wilkie
per Murray & Co.

UNITED STATES PATENT OFFICE.

E. McKINLEY AND W. WILKIE, OF MAYVILLE, WISCONSIN.

IMPROVED WASHING-MACHINE.

Specification forming part of Letters Patent No. 45,331, dated December 6, 1864.

To all whom it may concern :

Be it known that we, E. McKINLEY and W. WILKIE, both of Mayville, in the county of Dodge and State of Wisconsin, have invented a new and Improved Clothes-Washing Machine; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side sectional view of our invention taken in the line *y y*, Fig. 2; Fig. 2, a horizontal section of the same taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in the employment or use of two sets of swinging plungers operated by a crank-shaft which has the cranks placed alternately in opposite directions and fitted in oblong vertical slots in the plunger-bars, the latter being suspended on a shaft the bearings of which are at the upper ends of springs, all being arranged in such a manner that the two sets of plungers will by the turning of the crank-shaft be moved simultaneously in opposite directions and alternately act against or upon the clothes in the suds-box, and with a pressure due to the springs to which the shaft of the plunger-bars is connected.

A represents a suds-box the bottom *a* of which is curved upward at its front end, as shown in Fig. 1, *b* being the front, and *c* the back of the suds-box and *d d* its sides, the front *b* being slightly inclined. To each side *d* of the suds-box there is firmly attached an upright, *e*, and these uprights have vertical flat springs *C* attached to them, at the upper ends of which there are bearings *f*, to receive the ends of a shaft, *D*, on which a series of bars, *E*, are suspended loosely. These

bars have plungers *F* attached to their lower ends, one to each, the face sides of said plungers being inclined and fluted horizontally, as shown at *g*, and their bottoms being rounded or curved, as shown at *h*, the bottoms *h* working just clear of the bottom *a* of the suds-box.

Each plunger-bar *E* has a vertical oblong slot, *i*, made in it, in which cranks *j*, on a horizontal shaft, *G*, are fitted, said cranks being alternately in reverse positions, as shown in Fig. 2, so that the two sets of plungers may on turning the shaft *G* be moved simultaneously in opposite directions, the slots *i* admitting of the cranks *j* operating or swinging the plunger-bars *E* as the shaft is turned.

The bars *E* work through slots *k* in the top of the suds-box, and the clothes to be washed are placed in the suds box and are compressed by the plungers *F* against the inclined front *b*, the springs *C*, when the plungers come in contact with the clothes, yielding or giving so as to admit of a complete revolution of the cranks *j* without straining any of the working parts, and causing the plungers to squeeze the clothes, the pressure being proportionate to the strength of the springs *C*.

We do not claim swinging plungers in clothes washing machines, for they have been previously used; but

We do claim as new and desire to secure by Letters Patent—

The combination of the yielding shaft *D*, plunger *F* at the lower ends of the bars *E*, which are suspended on the shaft *D*, the crank-shaft *G*, with the cranks *j* fitted in the oblong slots *i* in the bars *E*, and the suds box *A*, all arranged to operate substantially as and for the purpose herein set forth.

EPHRAIM McKINLEY.
WASHINGTON WILKIE.

Witnesses:

GOTTLIEB ALBERT,
HEINRICH BOEHMER.