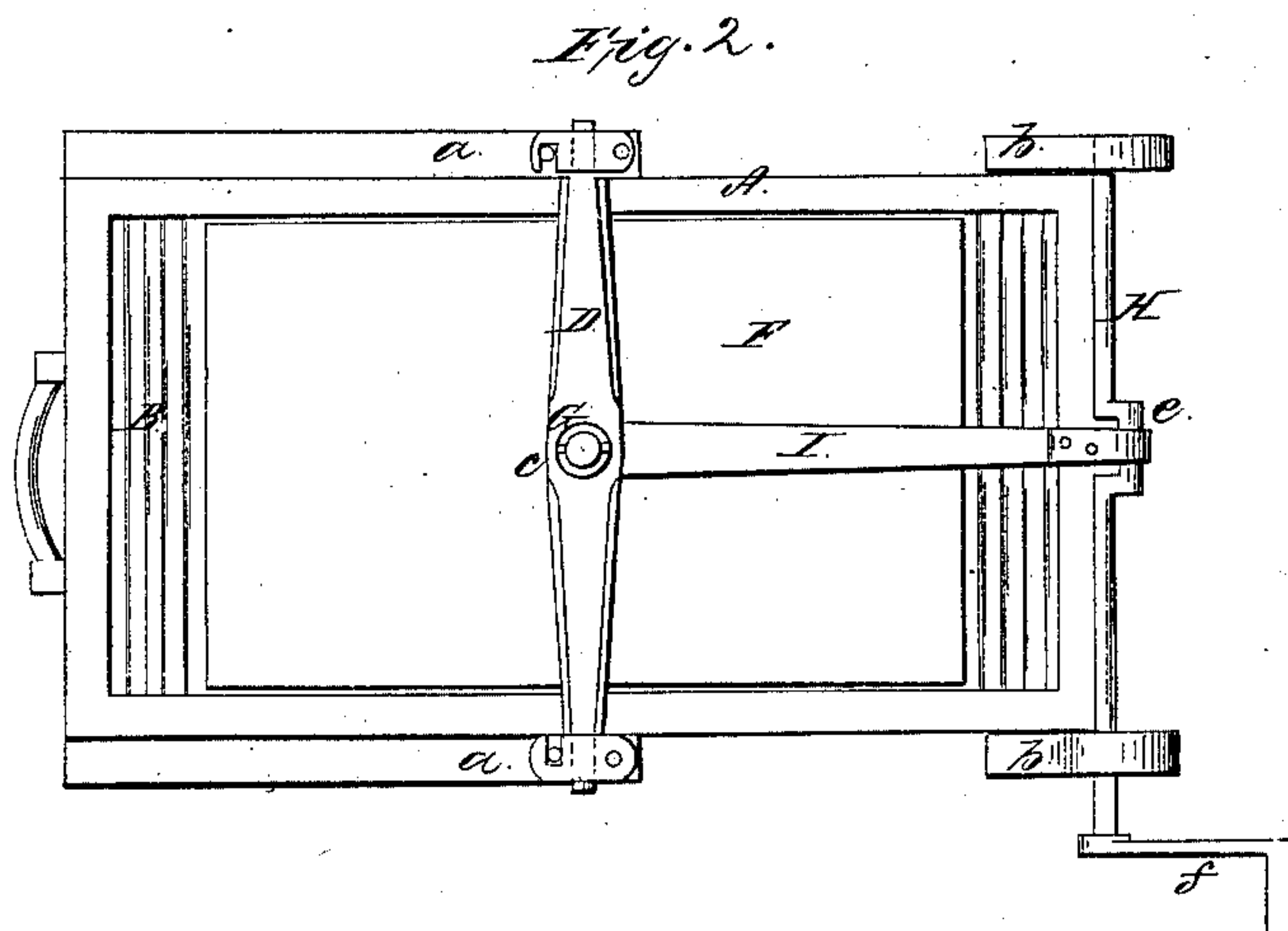
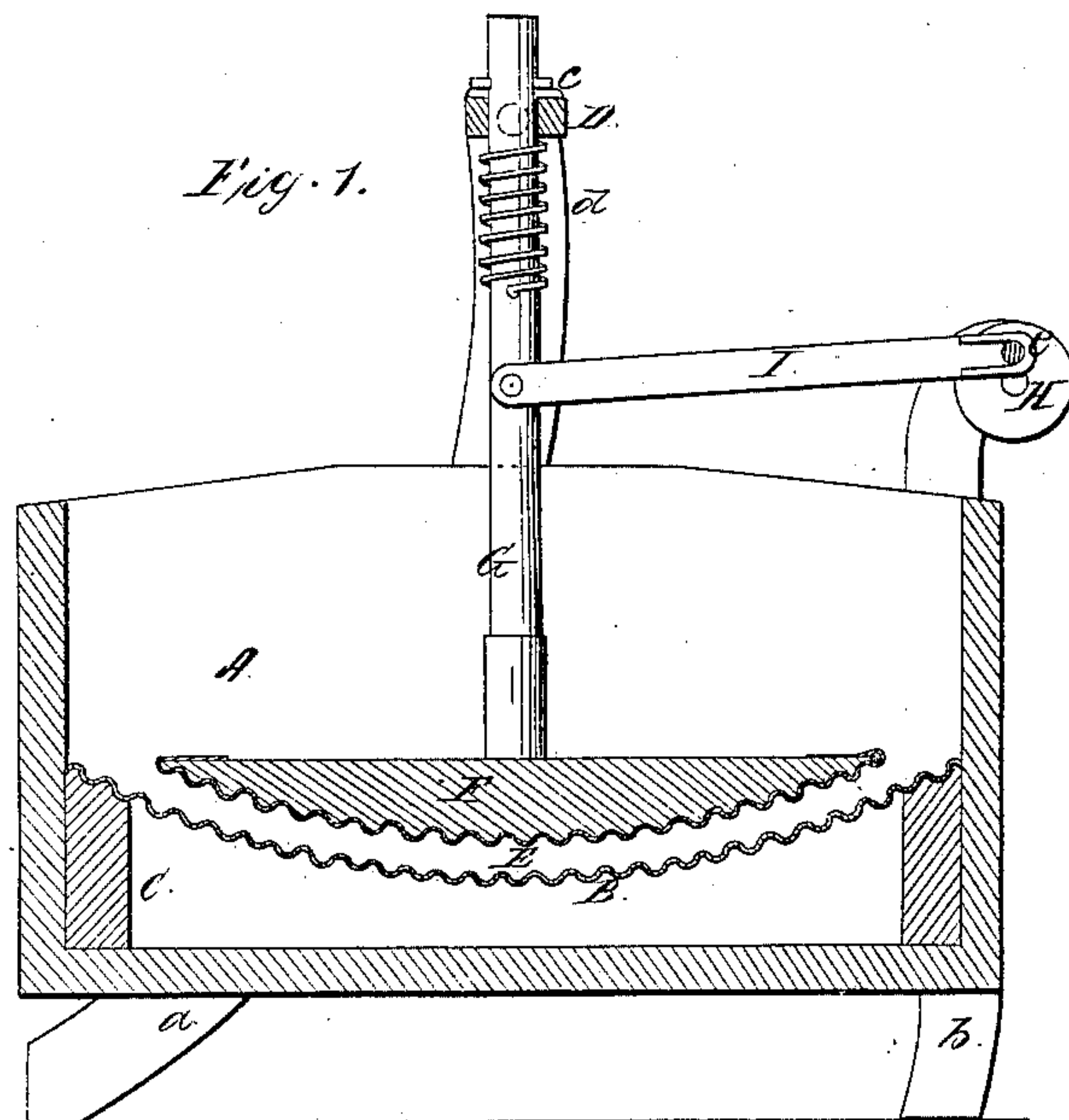


Hall & Scudder,

Washing Machine,

N^o 24,871,

Patented July 26, 1859.



Witnesses:
Charles A. Bourne
Walter H. Brown

Inventors:
George Hall
Alonzo Scudder

UNITED STATES PATENT OFFICE

GEO. HALL AND ALONZO SCUDDER, OF MORRIS, NEW YORK.

WASHING-MACHINE.

Specification of Letters Patent No. 24,871, dated July 26, 1859.

To all whom it may concern:

Be it known that we, GEORGE HALL and ALONZO SCUDDER, both of Morris, in the county of Otsego and State of New York, have invented a new and improved Clothes-Washing Machine; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a longitudinal central section of our invention. Fig. 2, a plan or top view of do.

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

To enable those skilled in the art to fully understand and construct our invention we will proceed to describe it.

A, represents a case or box of rectangular form and supported at a suitable height by bars *a, a, b, b*, which are secured to the sides of the box and extend some distance above its upper end.

Within the case or box A, a concave B, is placed. This concave is constructed of sheet metal, zinc would probably be the most preferable material and it is corrugated transversely. The concave is secured to a wooden frame C, fits within the case or box A, and rests on its bottom.

The bars *a, a*, are curved and extend upward above the center of the sides of the box A, and their upper ends serve as bearings for a transverse shaft D, which is allowed to rock in its bearings.

E, is a rubber which is formed of sheet metal corrugated transversely and attached to a wooden block F, the under side of which to which the rubber is attached being convex, as shown clearly in Fig. 1. To the center of the upper side of the block F, a shaft G, is attached, said shaft passing through the center of shaft D, and having a pin *c*, pass through it above shaft D, in order to retain it. Around the upper part of shaft G, a spiral spring *d* is placed, the lower end of said spring being attached to shaft G. This spring *d*, has a tendency to keep the rubber E, depressed to its fullest extend or as far as the pin *c*, will allow.

Through the upper parts of the bars *b, b*, a shaft H, passes. This shaft H, has a crank *e*, at its center to which a pitman I, is attached, said pitman being also connected to the shaft G. A hand crank *f*, is attached to one end of shaft H.

The operation is as follows: The box A, is supplied with a requisite quantity of suds, and the clothes to be washed are placed in the box or case between the rubber E, and concave B, the latter being elevated to admit the clothes by raising the shaft D, from its bearings, the shaft D, being afterward secured in proper place. The shaft H, is rotated by hand and a reciprocating motion thereby given the block F, and rubber E, the latter being pressed down on the clothes by the spring *d*, which of course yields or gives as the rubber moves back and forth equalizing the pressure on the clothes and causing them to be acted upon in a perfect manner to effect the desired end.

The device is operated with great facility and the hitherto laborious operation of washing clothes even with the majority of machines that have been hitherto devised is avoided.

Among the special advantages which arise from the use of our improvement, viz., the corrugated sheet metal concave, we would mention the following: The said concave, being composed of a single sheet of metal, extending entirely across the lower part of the box of the machine, presents a surface of a somewhat flexible or yielding nature, so that the clothes to be washed are compressed between two yielding surfaces, and the corrugations of the rubber and concave are thus more likely to enter the folds of the goods than would be the case if the concave B, were not flexible.

Our improved sheet metal concave B, is superior to those composed of wood, since it does not absorb and retain water; nor does it soon rot and thus become destroyed. It also enables us to make the machine lighter for our concave supersedes the necessity of the thick and heavy plank concaves usually employed.

Having described our improvement, we claim and desire to secure by Letters Patent,

The employment of a corrugated flexible metallic concave B, stretching across the lower part of the machine, substantially as and for the purpose herein shown and described.

GEORGE HALL.
ALONZO SCUDDER.

Witnesses:

CHARLES A. BOURNE,
WALTER H. BROWN.