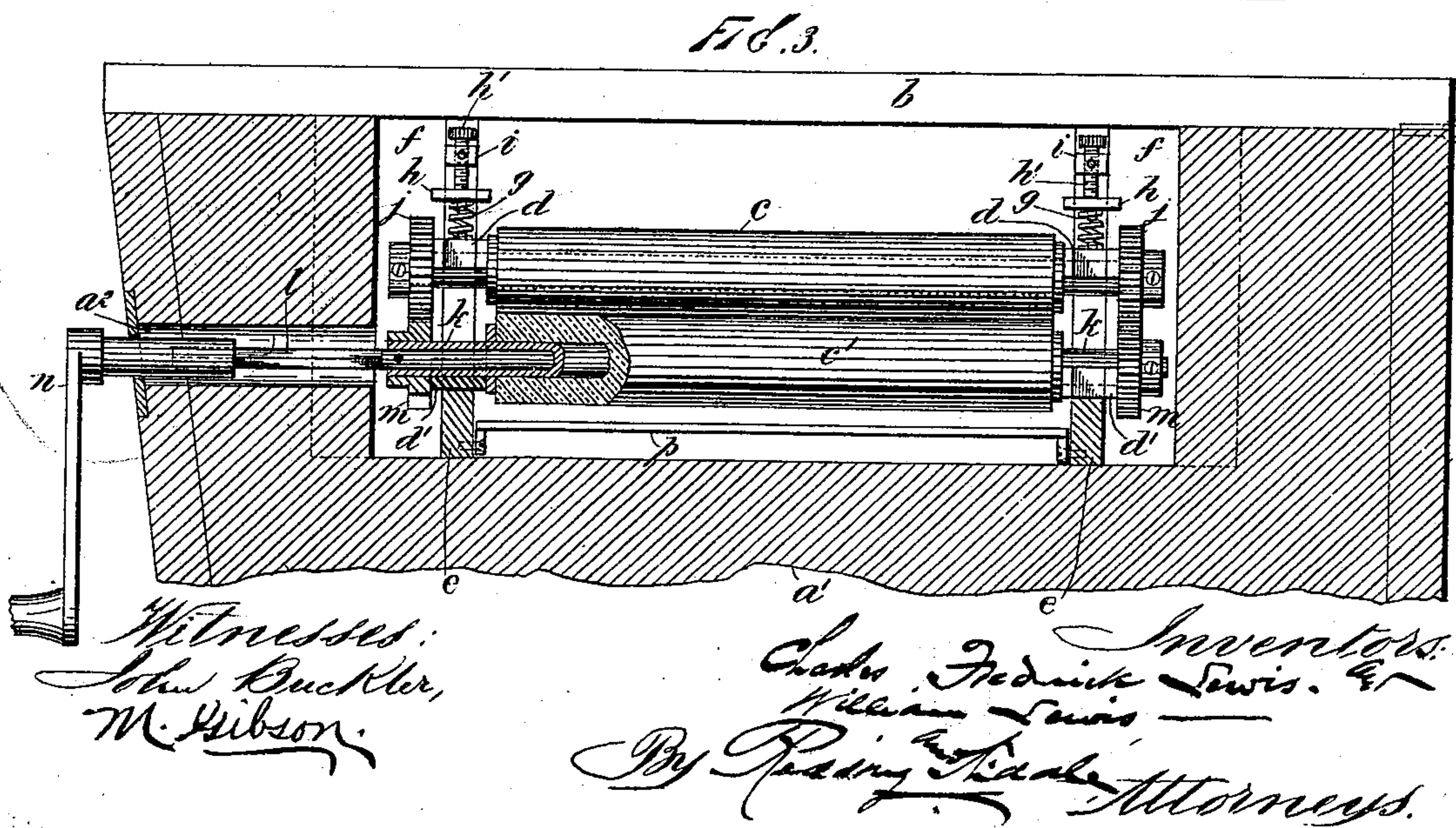
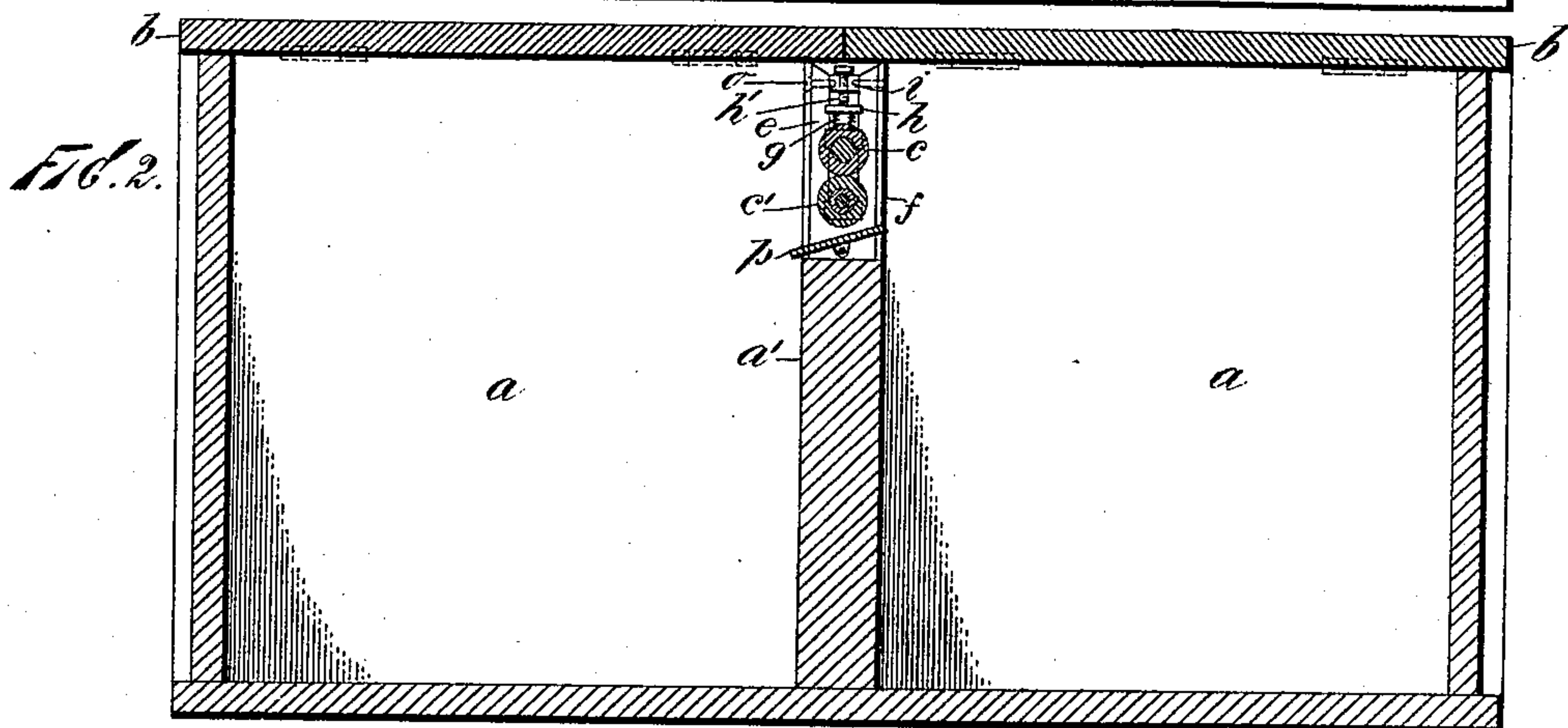
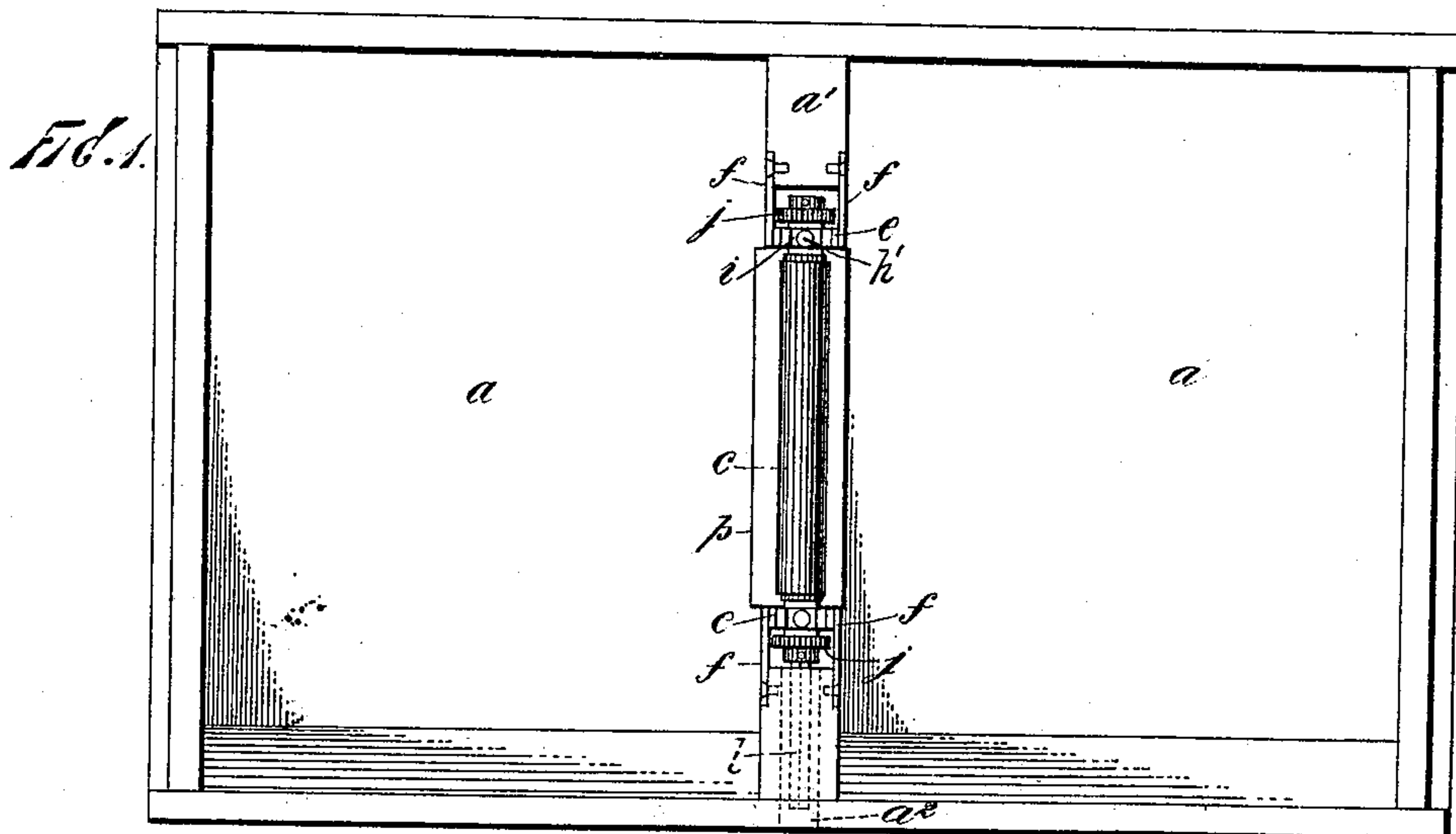


(No Model.)

C. F. & W. LEWIS.
COMBINED CLOTHES WRINGER AND WASHTUB.

No. 518,412.

Patented Apr. 17, 1894.



Witnesses:
John Buckler,
M. Gibson.

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UNITED STATES PATENT OFFICE.

CHARLES FREDRICK LEWIS AND WILLIAM LEWIS, OF NEW YORK, N. Y.,
ASSIGNORS TO ADOLPH FALCK, OF SAME PLACE.

COMBINED CLOTHES-WRINGER AND WASHTUB.

SPECIFICATION forming part of Letters Patent No. 518,412, dated April 17, 1894.

Application filed November 16, 1893. Serial No. 491,088. (No model.)

To all whom it may concern:

Be it known that we, CHARLES FREDRICK LEWIS and WILLIAM LEWIS, both citizens of the United States, and residents of the city of New York, State of New York, have invented certain new and useful Improvements in a Combined Clothes-Wringer and Washtub, of which the following is a specification, reference being had to the accompanying drawings, forming part hereof.

Our invention relates to washing apparatus such as are usually employed in washing clothes and is embodied in a combined clothes wringer and wash tub. Heretofore wringers for domestic purposes such as have been used with stationary tubs divided by partitions into two or more compartments and adapted to wring the clothes while the clothes are passing from one compartment to another have been attachable to and detachable from said tubs, and it has been necessary, preliminary to using such wringers to mount and secure them upon the partitions between the compartments of the stationary tubs and it has been necessary to detach them and remove them from said tubs upon the completion of the work in order to close down the lids of the tubs. As these wringers have been heavy and quite bulky the work of detaching and removing them has been difficult and burdensome, especially so because it has been usually performed by women. Further, if the wringers are allowed to remain in place during the washing the projecting screws of the clamping device have proved troublesome, as clothes are apt to catch upon them and be torn thereby, and the wringer standing up above the partition has been in the way and has interfered with the work of washing.

Now according to our invention the wringer is permanently mounted upon the partition between the compartments and is so located thereon as to permit the lids to be closed down. Thus the wringer is always in operative position and does not have to be moved about. It is also so mounted that there are no projecting screws to catch in the clothes, the surfaces of the wringer and frame being

smooth.

The wringer is operated by means of a

crank handle which may be engaged with a roller of the wringer and may be removed when the wringer is not in use.

When the wringer is not in use and the crank removed and the lids closed down, the appearance of the tubs is substantially as in former constructions, and when the wringer is in use the only projecting part is the crank handle, and this crank handle can be readily and quickly attached or detached as desired.

In the drawings Figure 1 is a plan view of a stationary tub with the lids removed and of a wringer mounted therein according to our invention. Fig. 2 is a longitudinal vertical section of the same with the lids closed down; and Fig. 3 is a transverse vertical section of the same taken centrally through the middle partition and wringer.

The stationary tubs *a* are of usual construction, except as to the middle partition *a'* and are provided with one or two hinged lids *b*, *b*, as usual. The tub shown is divided into two compartments, but it is evident that our invention may be applied to tubs divided into any desired number of compartments and the wringer may be applied to and combined with any number of partitions. The material of the tubs may be wood or stone or any desired and suitable substance. The partition *a'* is cut away or has an opening formed at its upper central part as clearly shown in Fig. 3, and has a channel *a²* formed through it extending from said opening toward and through the front of the tubs for receiving the operating crank handle, as hereinafter described.

The wringer rollers *c*, *c'* are mounted in bearing blocks *d* *d'*, and these bearing blocks are mounted in the standards *e* *e*. The standards *e* *e* rest at their lower ends upon the upper part of the partition at the opening therein and are held in place by the plates *f*, *f*, two for each standard, which plates extend over a portion of the partition *a'* and bridge across and laterally inclose the space between each standard *e* and the adjoining part of the partition *a'* and are secured by screws or otherwise to the partition and to their respective standards *e* or form part of their respective standards or the partition. These plates *f* are so fitted that their outer surfaces are flush with the surfaces of the par-

tition, and the holding devices are counter-sunk therein so that the side surfaces are smooth and without projections. The bearing blocks d d' are fitted to slide in vertical openings in the standards e e . The lower bearing blocks rest upon said standards at the bottoms of said openings. The upper bearing blocks are pressed downward with a yielding pressure by the springs g , and the upper surfaces of the springs g bear against the plates h fitted and sliding in the standards e and adjustably held down against the springs by the adjusting screws h' passing through fixed bridge pieces i held in and bridging across the openings in said standards e .

The upper wringer roller c is of ordinary construction having an outer covering of rubber or other suitable flexible material, and a metallic shaft or core extending through the bearing blocks d , d' , and having gear wheels j j mounted at each end thereof. The lower wringer roller c' is of similar construction having gear wheels m , m , meshing into the gears j of the upper wringer roller, but the shaft k of this lower wringer roller is tubular or hollow and has therein the inner removable shaft l , extending from end to end thereof and out into the channel a^2 in the partition a' . It is of course evident that other gearing, such as friction gearing or belts may be used to couple the wringer rollers together. The end of this inner removable shaft is squared or otherwise shaped so that it will engage with the hub of and be rotated by the detachable crank handle n . This crank handle may be attached or removed by simply sliding its hub on or off the end of the inner shaft l . The construction of these parts is such that the apparatus may be readily taken apart for repairing or the insertion of new parts or for other purpose. The bridge piece i is held in place by fastening devices such as the screws o , shown in Fig. 2 which pass through the standards e and enter said bridge pieces i . Upon the withdrawal of these screws o and the removal of the bridge pieces i , the plates h and the boxes d (of wringer roller c) can be slid upward and removed and the roller c removed. In order to remove the wringer roller c' it is now only necessary to release the fastening devices holding the inner shaft l , which fastening devices are shown as screws passing through the hubs of gear wheels m , through the tubular shaft k and into said inner shaft l , and after the removal of said fastening devices to pull out the inner shaft l through the channel a^2 in the partition a' . After the removal of the inner shaft l , the lower wringer roller c' can be lifted out of the apparatus.

To provide for using the wringer by rotating the rollers in either direction, we provide a tilting water table p , pivotally mounted in the standards e . This water table may be tilted so as to carry into either compartment

the drippings from the materials passing through the wringer rollers.

It is evident that a portion of our invention would be embodied and some of its advantages realized if the partition a were the side partition or outer side of a tub, and therefore the word partition as used herein is intended to cover an outer partition or side as well as an inner partition.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination with the partition of a wash tub having an opening therein, of a wringer located in said opening, a shaft of said wringer rollers extending through a channel in said partition, and a crank handle constructed to be inserted from the outside of the tub and to engage with and operate said shaft and wringer rollers, substantially as set forth.

2. The combination with a partition of a wash tub having an opening therein, of a wringer located in said opening said wringer having side standards supporting the wringer rollers and being each located at a short distance from the adjoining edge of the said partition, gearing joining the wringer rollers located in the openings between the standards and the edges of the partition and plates extending from said partition and said standards and bridging across and inclosing said last mentioned openings, substantially as set forth.

3. The combination with a partition of a wash tub having an opening therein, of a wringer located in said opening said wringer having side standards supporting the wringer rollers, and plates joining said side standards to the wash tub partition, a shaft of said wringer rollers extending through a channel in said partition, and a crank handle constructed to be inserted from the outside of the tub and to engage with and operate said shaft and wringer roller, substantially as set forth.

4. The combination with a partition of a wash tub having an opening therein, of a wringer located in said opening said wringer having the side standards e e , the wringer rollers c and c' having shafts mounted therein, the shaft k of said roller c' being hollow, the inner shaft l removably held in said hollow shaft k and extending through a channel in said partition, and a crank handle constructed to be inserted from the outside of the tub and to engage with said inner shaft l , substantially as set forth.

5. The combination with a partition of a wash tub having an opening therein, of a wringer located in said opening, said wringer having the side standards e , e , the wringer rollers c and c' having shafts and bearing boxes mounted in said standards, yielding pressure devices mounted in said standards and connected to the bearing boxes of one of said wringer rollers, gearing joining the wringer rollers located in openings between the stand-

ards *e, e*, and the edges of said partition, and the plates *f f* extending from the standards to the edges of said partition and bridging across and laterally inclosing said last mentioned openings, substantially as set forth.

5 6. The combination with a partition of a wash tub having an opening therein, of a wringer located in said opening, said wringer having the side standards *e, e*, the wringer rollers *c* and *c'* having shafts and bearing boxes mounted in said standards, yielding pressure devices mounted in said standards connected to the bearing boxes of said wringer rollers *c*, gearing joining the wringer rollers
10 located in openings between the standards *e e* and the edges of said partition, the plates *f f* extending from the standards *e, e*, to the edges
15

of said partition and bridging across and laterally inclosing said last mentioned openings the said roller *c'* having the hollow shaft *k* 20 and the inner shaft *l* removably held in said hollow shaft *k* and extending through a channel in said partition, and a crank handle constructed to be inserted from the outside of the tub and to engage with said inner shaft *l*, 25 substantially as set forth.

This specification signed and witnessed this 14th day of November, 1893.

CHARLES FREDRICK LEWIS.
WILLIAM LEWIS.

In presence of—

HENRY D. WILLIAMS,
M. GIBSON.