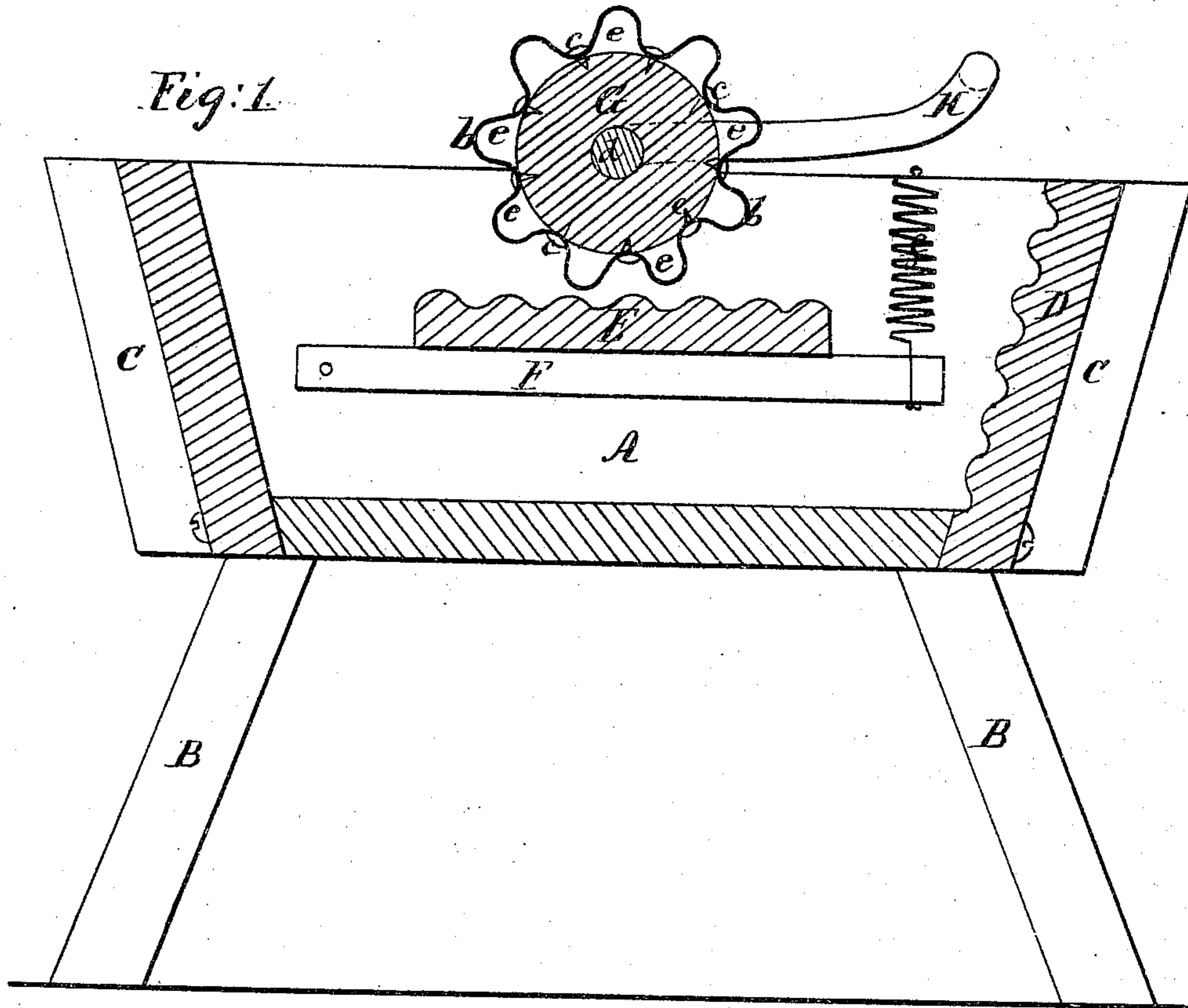


*G. N. Palmer*

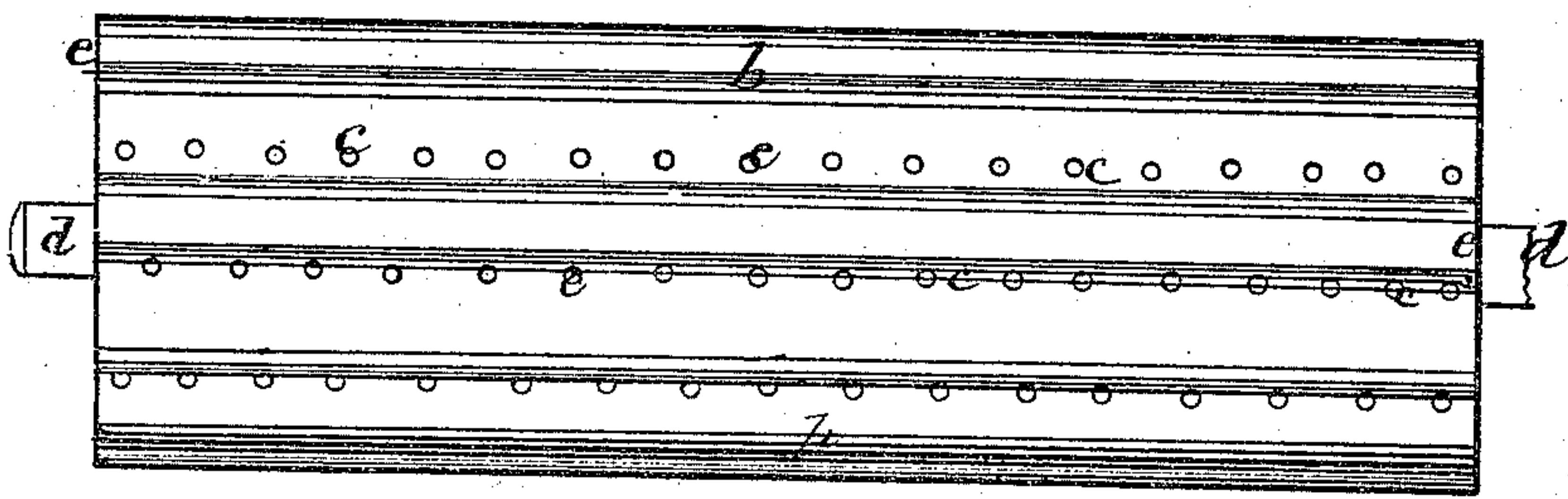
*Washing Mach.*

*N<sup>o</sup> 88,663.*

*Patented Apr. 6, 1869.*



*Fig: 2.*



*Witnesses;*

*W. S. Hayes*  
*R. D. Burdall*

*Inventor;*

*George N. Palmer*



# United States Patent Office.

GEORGE N. PALMER, OF GREEN, NEW YORK, ASSIGNOR TO HEMAN CARTER, OF SAME PLACE.

Letters Patent No. 88,663, dated April 6, 1869.

## IMPROVED WASHING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE N. PALMER, of Green, in the county of Chenango, and State of New York, have invented a certain new and useful Improvement in Washing-Machines, which I have assigned to HEMAN CARTER, of the same place; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents an end view section, showing the suds-box, a stationary corrugated wash-board, a yielding corrugated pressure-board, and the smooth, hard-wood cylinder, with the mode of securing vulcanized sheet rubber to it, to form the washing, or scouring-apparatus.

Figure 2 shows a longitudinal view of the rubbing, or scouring-cylinder, as covered with India rubber, to make the corrugations very flexible.

The object of my invention is to make a very simple, cheap, durable, and efficient apparatus for cleansing clothing, bed and table linen, &c., that will not tear, chafe, or remove buttons, and will cleanse the dirtiest parts, as collars and wristbands to men's shirts, as perfectly as washing with the hands.

My invention consists in the mode of covering a smooth wood roller with a suitable thickness sheet of vulcanized India rubber, so secured at intervals as to leave open spaces under the corrugations, thereby making them very flexible and yielding, while at the same time they produce the necessary friction for rubbing soiled places without the chafing or wearing of the articles, incident to less flexible corrugated rollers.

To enable others to make and use my improved washing-apparatus, I will describe it more fully, referring to the drawings, and to the letters marked thereon.

I make the suds-box A in the ordinary manner, supported on legs B B, to make it a suitable height for the convenience of operating.

In one of the ends C C, I make a corrugated stationary wash-board, D, which can be used for washing in the common manner.

In the centre of the suds-box A, I place a horizontal corrugated wash-board, E, supported at the ends on pieces of wood F, which are pivoted at one end to the sides of the suds-box, and held up at the other by springs f, so that the board E can be depressed to admit a larger or smaller quantity between it and the rubber roller G, which has its bearings d d in boxes on the top of the box A.

The washing-roller G is constructed by having a hard-wood roller, of any suitable diameter, turned smooth, then by taking a sheet of non-elastic India rubber, or cloth b, saturated and covered with gum, and securing the same to the roller G, with copper nails c c c or small brass screws, at such intervals as to leave loops, or open spaces e e e e between it and the surface of the cylinder G, thus forming very flexible but non-elastic corrugations on the surface.

The washing, or operating flexible corrugated cylinder is provided with a crank-handle, H, and is worked by turning back and forth, the same as any roller washing-machine.

It has been practically demonstrated that with the simple apparatus, constructed as above described, at least fifty per cent. of the time and labor is saved in washing, and the most soiled places are as thoroughly cleansed with as little wear and damage to the articles as can be done by the most careful hand washing.

What I claim as my invention, and desire to secure by Letters Patent, is—

The smooth surface roller G, covered with vulcanized India-rubber sheet, or cloth b b, the same being so secured, at intervals to the roller, as to form corrugations, and leave openings e e e between it and the cylinder, substantially in the manner as described, for the purposes herein set forth.

In testimony whereof, I have hereunto subscribed my name in the presence of—

GEO. N. PALMER. [L. S.]

Witnesses:

LEWIS S. HAYES,  
HENRY R. BIRDSALL.