(No Model.) 2 Sheets—Sheet 1.

D. K. WRIGHT.

WASHING MACHINE.

No. 456,370. Patented July 21, 1891.

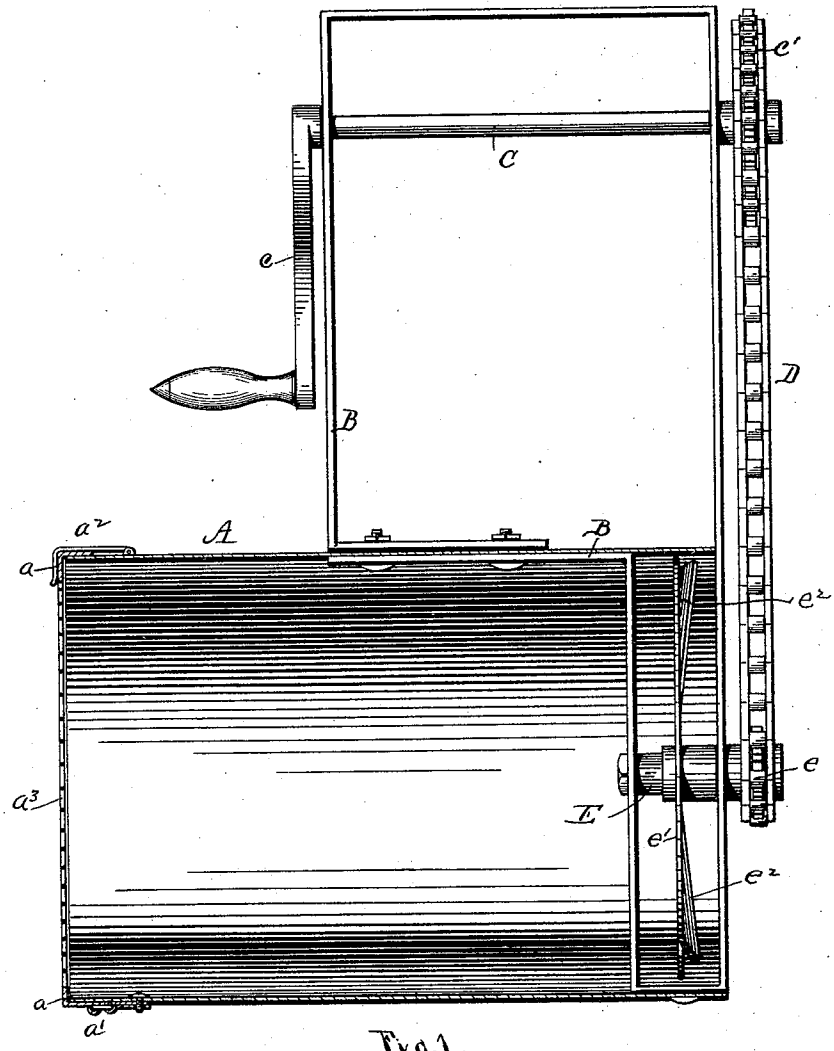

Fig. 1.

Witnesses:
A. R. Cushman.
H. C. Hudson.

Inventor:
Daniel K. Wright,
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.)

2 Sheets—Sheet 2.

D. K. WRIGHT.

WASHING MACHINE.

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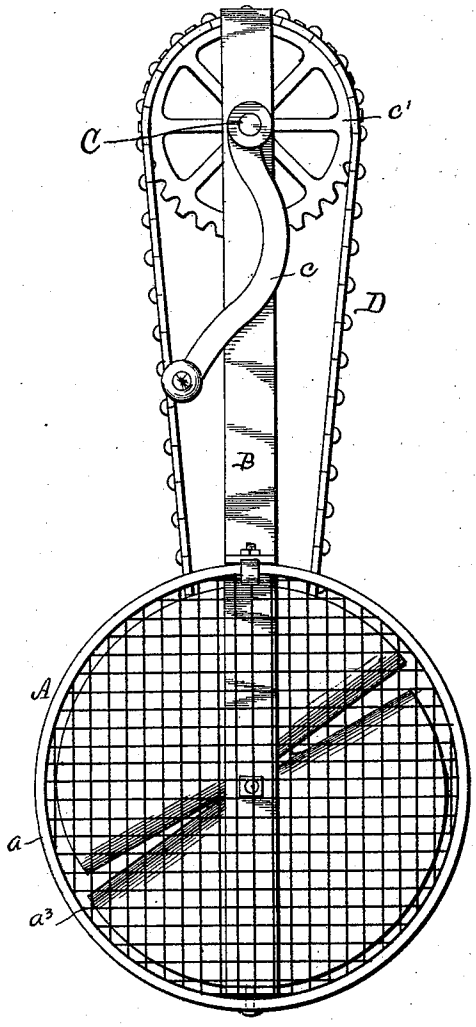

Fig. 2.

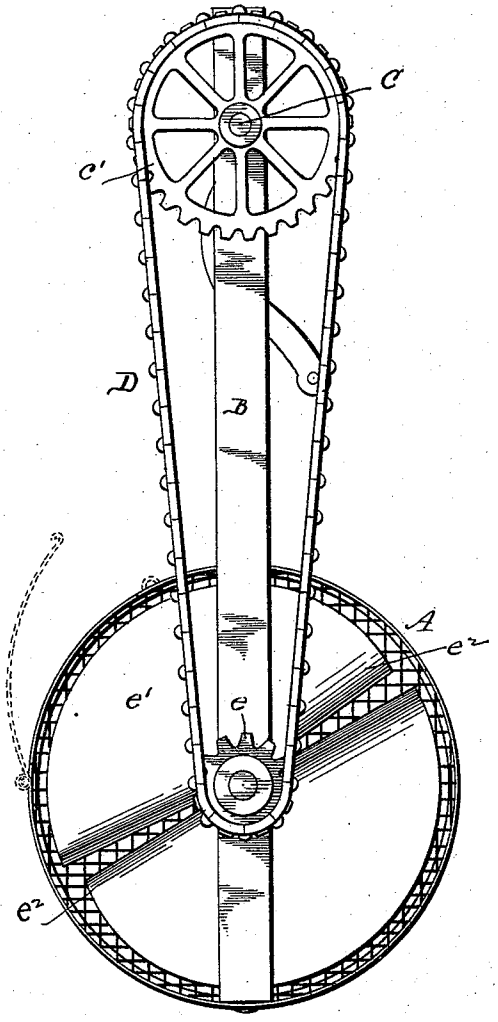

Fig. 3.

Witnesses:

A. V. Cushman.

W. C. Henderson.

Inventor:

Daniel K. Wright

by Henry Calver

Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DANIEL K. WRIGHT, OF AFTON, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 456,370, dated July 21, 1891.

Application filed April 9, 1891. Serial No. 388,290. (No model.)

To all whom it may concern:

Be it known that I, DANIEL K. WRIGHT, a citizen of the United States, residing at Afton, in the county of Union and State of Iowa, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has for its object to provide a simple washing machine or apparatus for family or laundry use which will quickly and thoroughly cleanse soiled clothes without subjecting them to attrition and consequent wear.

To this end my machine comprises a receptacle preferably cylindrical in form and provided at one end with a foraminous cover of wire-netting or similar material, said receptacle having at its opposite end a water-forcing wheel having inclined blades or wings and carried by a short shaft arranged within said receptacle and operated from a suitable driving-shaft, as will hereinafter be more fully explained.

In the drawings, Figure 1 is a sectional elevation of my improved machine, and Figs. 2 and 3 are opposite end views thereof.

A denotes a receptacle, preferably of cylindrical form and constructed of heavy sheet metal, said receptacle being preferably of a size suitable to be contained in an ordinary wash-boiler or wash-tub. To one end of said receptacle is attached an open-work or foraminous cover, which may be connected therewith simply by a hinge a' and hook a^3 or in any other suitable manner. Said cover, as herein shown, consists of a band a, in which is suitably secured a circular piece of wire-netting a^3.

B denotes a suitable frame extending above the receptacle A and consisting, as herein shown, of a single bent piece of wrought-iron doubled upon itself above and below, as clearly shown in Fig. 1. Journaled in the upper part of the frame B is a driving-shaft C, provided at one end with a crank c and at its opposite end with a sprocket-wheel c', the latter being connected by a chain D with a smaller sprocket-wheel e on a short shaft E, journaled in the lower part of said frame and carrying the water-forcing wheel e' within the receptacle or cylinder A, and provided with a suitable number of inclined blades or wings e^2. The proportional size of the sprocket-wheels c' and e is preferably such as to cause the shaft E to turn three or four times to one revolution of the driving-shaft C.

The operation of my invention is as follows: A quantity of soiled clothes to loosely fill the receptacle or cylinder A is placed therein, and the said cylinder is then immersed in water in an ordinary wash-boiler or wash-tub. The operator then steadies the machine with one hand and turns the crank with the other, such operation rapidly rotating the water-forcing wheel e' and causing the hot suds to be forced through the clothes to be cleansed and out through the foraminous or open-work cover, the suds or water returning or flowing around outside of the receptacle to again be forced through the clothes as long as the machine is in operation. As the receptacle is stationary or non-rotary, the clothes are not tumbled about, and are therefore not worn by attrition, but are thoroughly cleaned simply by the hot suds or water which is forced through them, as has been demonstrated by actual practice, so that the operation of washing causes no appreciable wear of the clothes, as is proved by the fact that the dirty suds are not filled with lint and shreds, as is usually the case. The passage of the water through the receptacle keeps the clothes away from the wheel e' and the lower shaft; but for safety any suitable screen may be provided for this purpose, if desired.

It will be apparent from the foregoing that I provide a washing-machine of compact form and simple construction which will thoroughly cleanse soiled clothes without wearing the same appreciably, which is portable and convenient for family use, but which may be enlarged for laundry purposes, if desired, the essential feature thereof being the stationary or non-rotary horizontal receptacle having in one end a winged water-forcing wheel and having a foraminous cover at the other, combined with means for driving said wheel. The open-work cover need not necessarily be removable, as a door, as denoted by dotted lines in Fig. 3, might be made in the side of the receptacle for the insertion or removal of the clothes.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A washing machine or apparatus consisting of a non-rotary horizontal receptacle adapted to be placed in a wash boiler, tub, or vat and provided at one end with an open-work cover and at its opposite end with a water-forcing wheel, combined with means for rotating said wheel.

2. A washing machine or apparatus consisting of the combination, with a non-rotary receptacle having an open-work cover at one end, of a frame attached to said receptacle, a driving-shaft journaled in said frame above said receptacle, a second shaft journaled within said receptacle at the end thereof opposite said cover and operatively connected with said driving-shaft, and a winged water-forcing wheel carried by said second shaft.

3. The combination, with the receptacle A, provided with the frame B and having an open-work cover at one end, of the shaft C, journaled in the upper part of said frame and having the crank *c* and sprocket-wheel *c'*, the chain D, and the shaft E, journaled in the lower part of said frame within said receptacle and carrying the sprocket-wheel *e* and winged water-forcing wheel *e'*.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL K. WRIGHT.

Witnesses:

EWELL A. DICK,

HENRY CALVER.