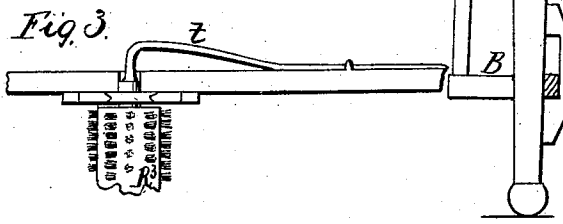
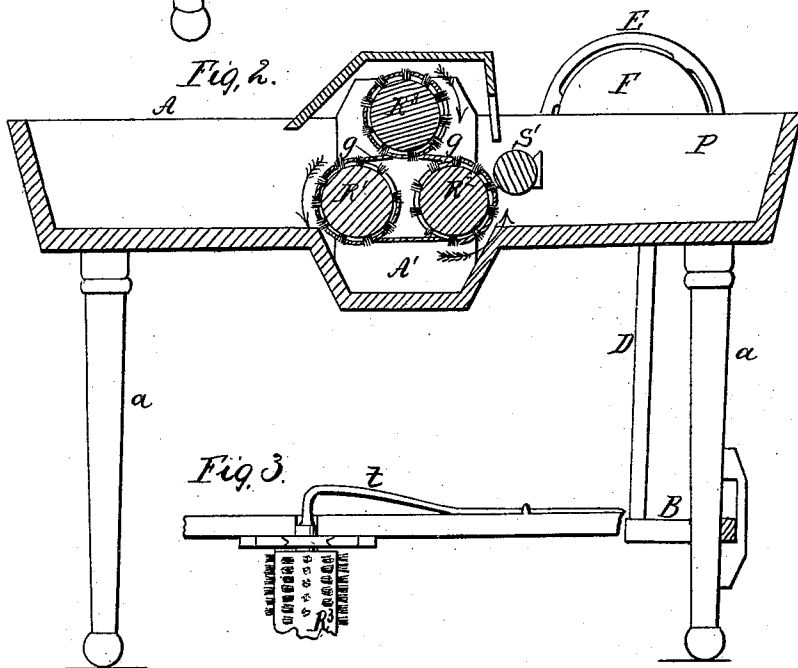
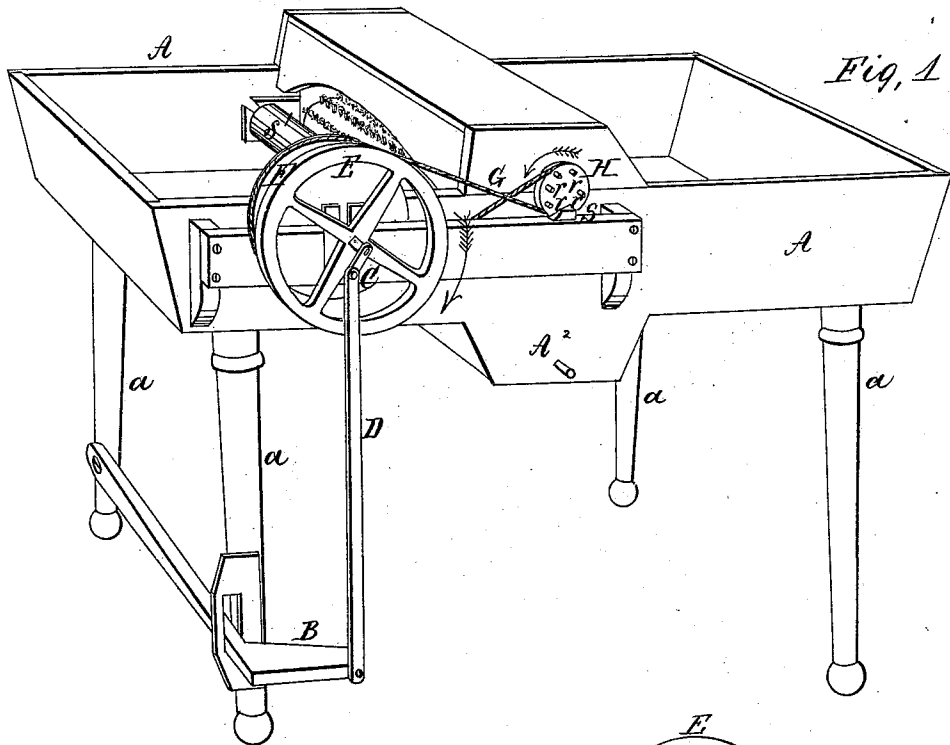


C. Learned, Washing Machine.

N^o 5,802 -

Patented Sep. 26, 1848.



UNITED STATES PATENT OFFICE.

CHARLES LEARNED, OF INDIANAPOLIS, INDIANA.

WASHING-MACHINE.

Specification of Letters Patent No. 5,802, dated September 26, 1848.

To all whom it may concern:

Be it known that I, CHARLES LEARNED, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and
5 useful Machine for Washing Clothes, of which the following is a full, clear, and exact description, reference being had to the annexed drawings of the same, making part of this specification, of which—

10 Figure 1 is a perspective view showing the several parts in connection, Fig. 2 is a vertical longitudinal section Fig. 3 is a top view of the upper side of the box and end of the upper brush, showing the spring for
15 giving longitudinal motion to the same.

The nature of my invention and improvement consists in mounting in a rectangular, or other formed wash box, or tub, three revolving cylindrical brushes and a revolving
20 rest, between which brushes the clothes are caused to pass and by the action of which, combined with the cleansing effect of the soap and water, the dirtiest clothes are quickly cleaned.

25 To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The box A, is of rectangular form, made of boards, and of any convenient dimensions, in its bottom a transverse depression, or cavity A' Fig. 2 is made, within which the under side of the lower brushes R' R² revolve, these brushes are placed in this recess in order that they may be constantly
35 dipped in the suds. The mud and grit all collect in this recess, and is withdrawn by removing the spigot or plug A² from the end thereof, when it runs out along with the water in which it is held in suspension by
40 the agitation produced by the revolving of the brushes. The box is supported on legs a a a a to which the treadle B is secured in any convenient, or suitable manner; this treadle is for the purpose of actuating the
45 machine by manual force applied to it by the foot of the operator; the treadle is connected with the crank C in the usual manner, by a rod D; upon the crank shaft, the balance wheel E and pulley F are mounted, the
50 former to give steadiness and continuity of motion to the moving parts, the latter to revolve the brushes by means of the cross band G, which passes around the pulley H; the latter being secured upon the end of the
55 axis of the upper brush R³ which by means of the cross band g, Fig. 2, is connected with

and turns the lower brushes. In addition to its rotary motion the upper brush has a reciprocating longitudinal motion which is produced by the studs, or tappets r r r r r r
60 (affixed to the face of the pulley H) coming successively into contact with the inclined protuberance s, which forces the brush in a direction from the same through a space
65 equal to the distance which said protuberance s projects within the plane of the extremities of the studs r, when not in contact with the protuberance; the brush is constantly pressed toward this inclined protuberance by the tension of the spring t Fig.
70 3, so that when the tappets, or studs which move the brush in one direction are disengaged from the inclined protuberance, the brush instantly moves back again in the opposite direction, to be in position for the
75 next stud to act; thus, the alternate action of the spring and tappets keeps the brush in a rapid reciprocating longitudinal motion, by which the bristles are caused to enter every fold, a gentle abrasion of every part
80 of the surface of the cloth is produced which effectually removes the dirt almost as soon as the clothes have entered between the rollers; in this way clothes are cleaned with
85 much less damage to their texture and are otherwise less injured, than when subjected to the action of the rubbing machine.

The brushes are composed of wooden cylinders the periphery of which is armed with rows of bristles secured thereon in the same
90 manner in which they are secured in common brushes, these cylinders turn on suitable gudgeons, or journals, supported upon suitable bearings formed in or secured to the sides of the box, these brushes severally turn
95 in the direction indicated by the arrows in Fig. 2. The upper brush may be held at any fixed distance above the lower brushes by a spring set screw, or otherwise.

Immediately in front of the brushes, the
100 revolving rest s is mounted on suitable bearings secured to the sides of the box; this roller is composed of a cylindrical piece of wood having gudgeons projecting at each
105 end on which it rests on said bearings.

The operation of the machine so far as it has not already been explained is as follows, a suitable quantity of soap and water is placed in the tub, and the clothes to be
110 washed previously prepared by soaking in water, boiling, or otherwise, are placed there also at the front of the brushes at P; the

machine being now put in motion, the operator spreads a garment on the rest, allowing it to overhang a little, when the brushes instantly seize and draw it between them the
5 part of the cloth first passing between the rollers is allowed to remain there, until it is cleaned, when another portion of it is allowed to be drawn in to be acted upon, thus the garment is cleaned in successive
10 portions as it is allowed to pass gradually through between the rollers. Once passing through between the rollers is sufficient to clean any piece of cloth however dirty—as the mud, or grit accumulates in the depression in the bottom of the box, or the suds
15 become dirty, they are from time to time

withdrawn by removing the spigot, or plug A².

What I claim as my invention and desire to secure by Letters Patent is— 20

The combination and arrangement of the revolving brushes R' R² with the revolving and vibrating brush R³ in the manner and for the purpose herein described.

In testimony whereof I have hereunto 25 signed my name in presence of two subscribing witnesses this twenty second day of October 1847.

CHARLES LEARNED.

Witnesses:

ISAIAH MANSUR,

PETER H. WATSON.