

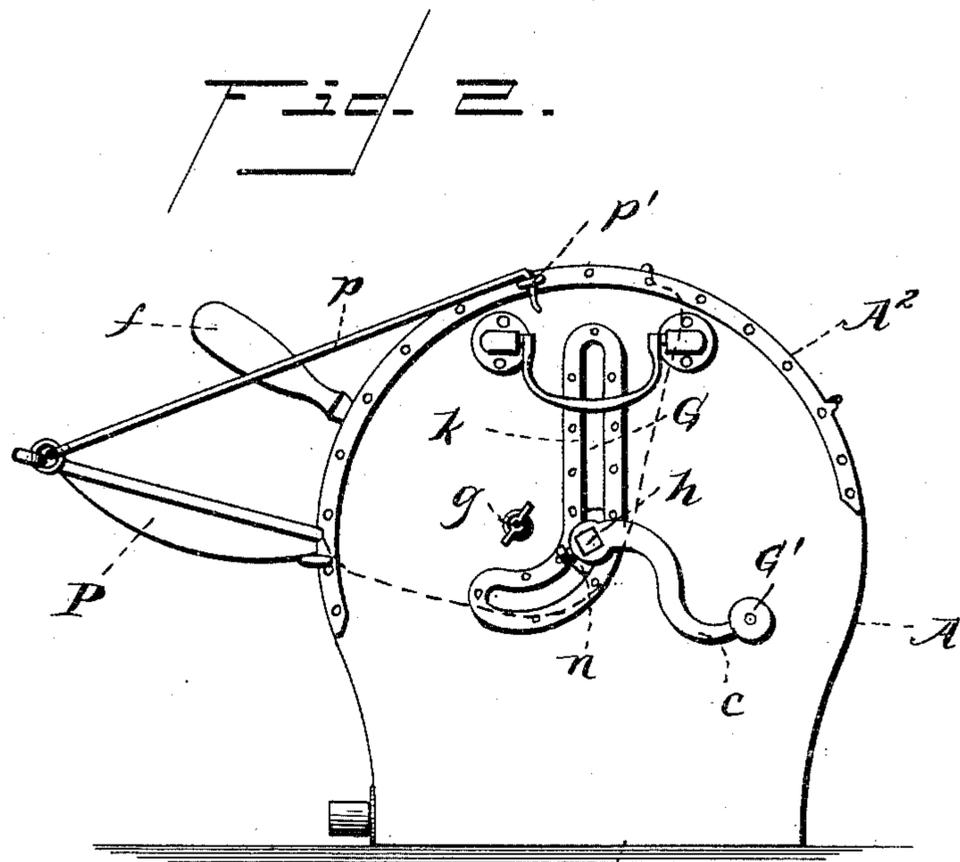
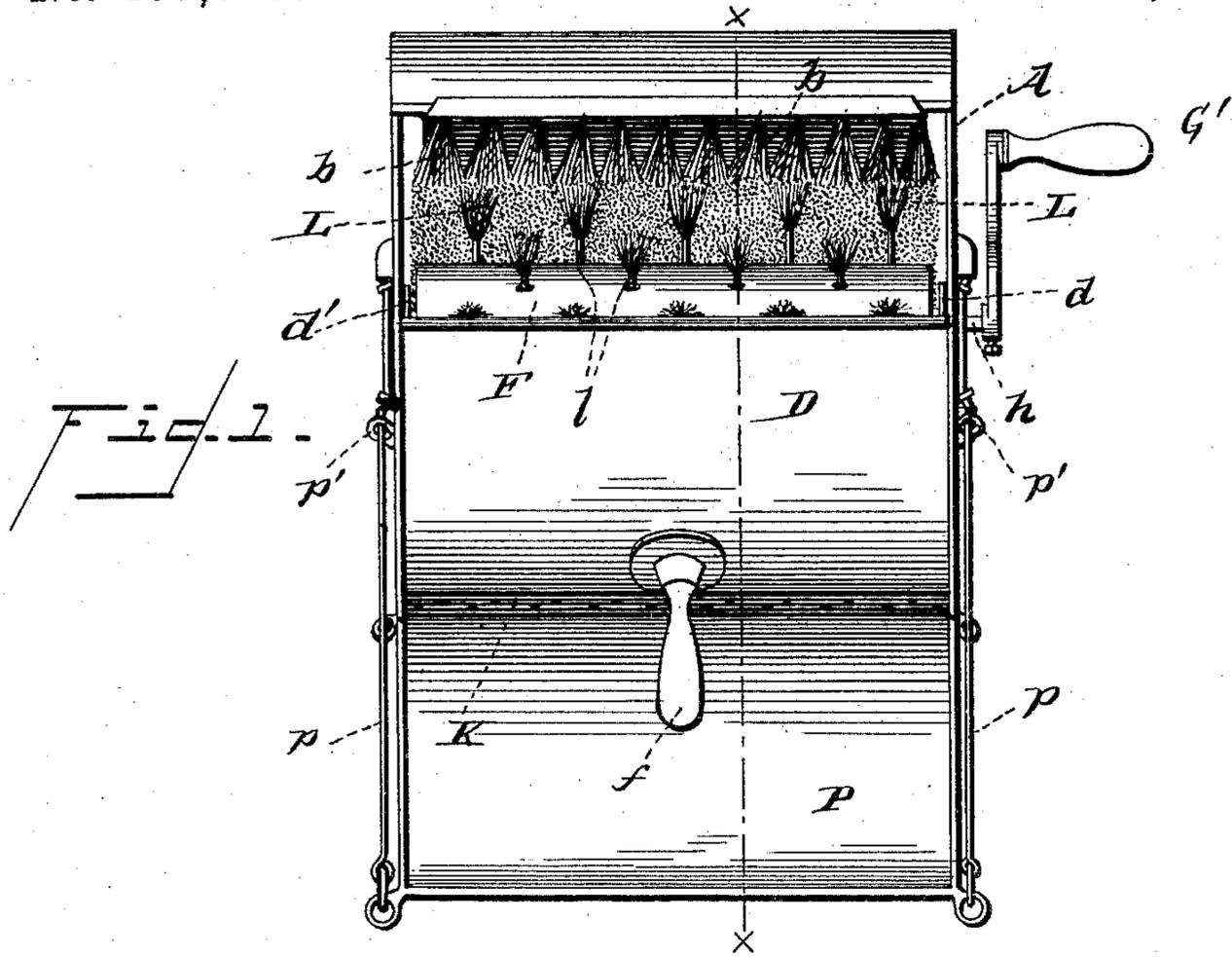
(No Model.)

2 Sheets—Sheet 1.

# W. C. NELSON. DISH WASHER.

No. 467,620.

Patented Jan. 26, 1892.



Witnesses  
*Cammel Ket.*  
*Philip Masi.*

Inventor  
*Wm C. Nelson,*  
 by *E. W. Anderson,*  
 his Attorney.

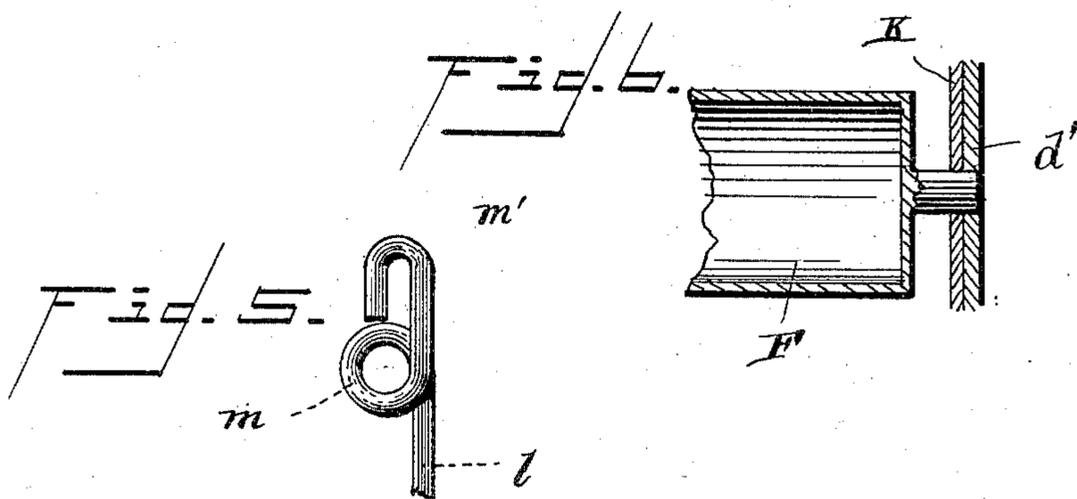
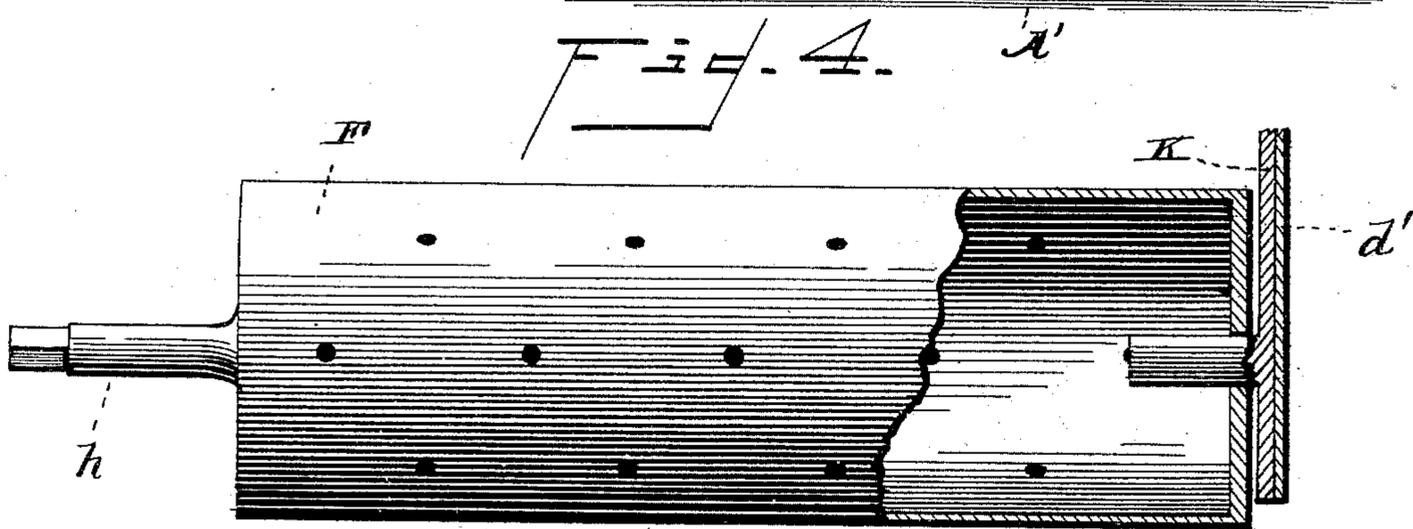
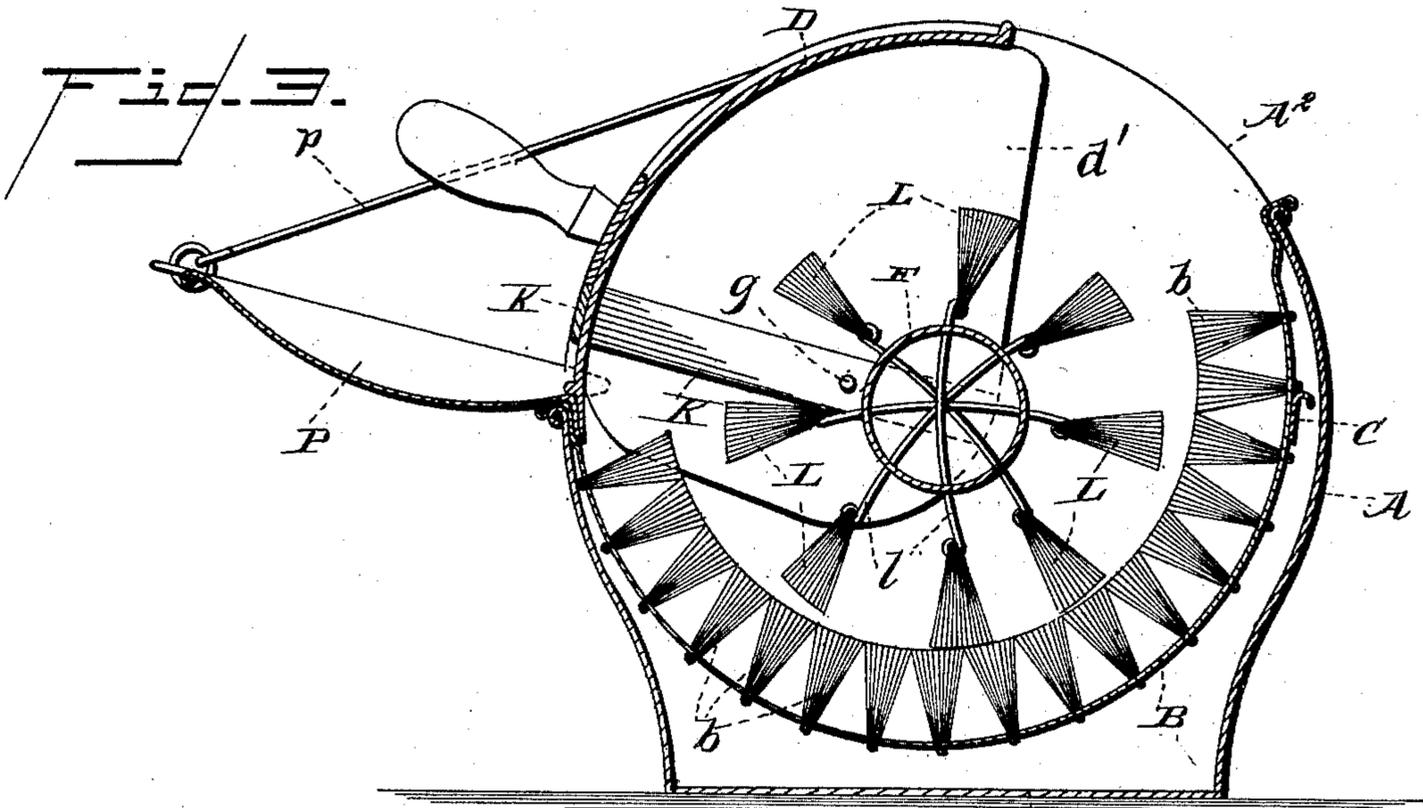
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2 Sheets—Sheet 2.

W. C. NELSON.  
DISH WASHER.

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Witnesses  
*Samuel Kern*  
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# UNITED STATES PATENT OFFICE.

WILLIAM CLARK NELSON, OF SANTA ROSA, CALIFORNIA.

## DISH-WASHER.

SPECIFICATION forming part of Letters Patent No. 467,620, dated January 26, 1892.

Application filed July 31, 1891. Serial No. 401,302. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM CLARK NELSON, a citizen of the United States, and a resident of Santa Rosa, in the county of Sonoma and State of California, have invented certain new and useful Improvements in Dish-Washers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a plan view of the washer. Fig. 2 is an end view. Fig. 3 is a vertical transverse section on the line X X, Fig. 1; and Figs. 4 and 5 are detail views, respectively, of the brush-cylinder, partly in section, and a portion of one of the brush-holding wires. Fig. 6 is a detail view of a portion of a modified form of brush-cylinder.

This invention relates to certain new and useful improvements in dish-washing machines, and is especially designed as an improvement on the construction shown and claimed by me in Letters Patent No. 249,973, dated November 22, 1881; and the invention consists in the novel construction and combination of parts, as hereinafter specified.

In the accompanying drawings, illustrating the invention, the letter A designates the receptacle or casing, the upper portion of which is cut away or open, as shown. This casing is shown as of approximately horseshoe form in cross-section, having the angular lower portion A', adapted to fit on a heater, and the curved or semi-cylindrical upper portion A<sup>2</sup>.

B designates a perforated concave false bottom removably placed in said receptacle or casing, and through the perforations therein are inserted brushes *b*. This bottom is of thin metal and is suspended in the casing in such a manner as to yield under pressure. On the under surface thereof at C is a hook adapted when the bottom is raised to engage the edge of the casing, thus providing for the adjustment of said bottom to leave a greater or less space through which the dishes or other articles to be operated upon pass.

D represents the curved or segmental cover, which serves to prevent the splashing of the

water during the operation of washing. This cover has the end arms of plates *d d'* extending downwardly within the casing and parallel with the end portions thereof. These arms are hung on set-screw bearings *g*, extending through the end walls of the casing at a point slightly above and to one side of the center, and by means of this pivotal bearing the cover can be carried backward or forward within the casing, a handle *f*, which may be removable, being provided for said cover. In the lower portion of the arm *d* is hung the gudgeon *h* of a hollow cylinder F, which is extended through a cam or curved slot G in one end of the casing, and is provided with an operating-crank G'. The marginal edges of this cam-slot G are preferably provided with a reinforcing-strip *k*. A second strip K may be used for the bearing for the set-screws and the gudgeon, as shown. The arm *d'* or the reinforcing-strip K thereon is provided with a pivot stud or projection which engages an aperture in that end of the cylinder, or, if preferred, a gudgeon may be formed on the end of the cylinder and be provided with a bearing in the arm *d'* or in the reinforcing-strip thereof. Through suitable perforations in this cylinder F loosely pass the brush-rods *l*, which extend entirely through said cylinder and project beyond the surface on either side. Near each end of these rods is shown a coil *m*, in each end of which is secured a brush L, which wears against the brush *b* of the false bottom B.

*n* is a disk around the crank-gudgeon, which, with the end extension of the cover, prevents water from escaping through the cam-slot during the operation of the machine.

It will be seen that by means of the bearings of the cylinder F in the arms or extensions of the cover that as said cover is turned forward said cylinder will be raised from the brushes *b*, and when turned backward will be pressed down upon them, the crank *c*, operating in the curved slot, readily accommodating itself to the different altitudes of the cylinder. The brush-rods *l* are extended beyond the brush-holding coils *m*, terminating at each end in a bend *m'* at about right angles thereto, in order to support the brush rigidly and firmly and causing the rod and brush to turn when brought in contact with the concave

false bottom or with the dishes, thus more effectually performing their work.

P designates a detachable apron or receiver supported upon the front of the machine to receive the dishes after they are taken from the brushes. This apron is shown as supported by means of the brace-rods *p*, which engage eyes *p'* on the casing, the inner edge of said apron resting upon the front upper edge of the casing, as shown.

In operation the cover is turned forward, raising the cylinder at its highest point from the false bottom. The articles to be cleansed are inserted in the washer through the open space between the cover and the edge of the receptacle. The cylinder is then put in motion by the crank *G'*, and the articles are carried along the space between the cylinder and the false bottom by contact with the brushes to the opposite side of the machine. The cover is then moved backward, the cylinder being consequently depressed, which increases the pressure upon the articles, which will be forced from the washer into the apron P completely cleansed.

Having described this invention, what I

claim, and desire to secure by Letters Patent, is—

1. In a dish-washing machine, the combination, with the receptacle or casing and the yielding, adjustably-supported, perforated, false, brush-carrying bottom therein, of the cover working within said receptacle and having end arms or extensions having an adjustable pivotal connection with the casing, and the brush-cylinder carried thereby, substantially as specified.

2. In a dish-washer, the combination, with the casing having the reinforced curved slot in one end thereof and the angular heating-surface, of the perforated, yielding, brush-carrying false bottom, the cover having the end extensions pivotally hung therein, the reinforcing-strip therefor, the pivoted rotary brush-cylinder, and the detachable apron or receiver, substantially as specified.

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

WILLIAM CLARK NELSON.

Witnesses:

W. J. T. ORR,  
GEO. P. NOONAN.