F. STAINES.

DEVICE FOR WASHING CROCKERY AND THE LIKE.

APPLICATION FILED JUNE 10, 1911.

1,040,450.

Patented Oct. 8, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

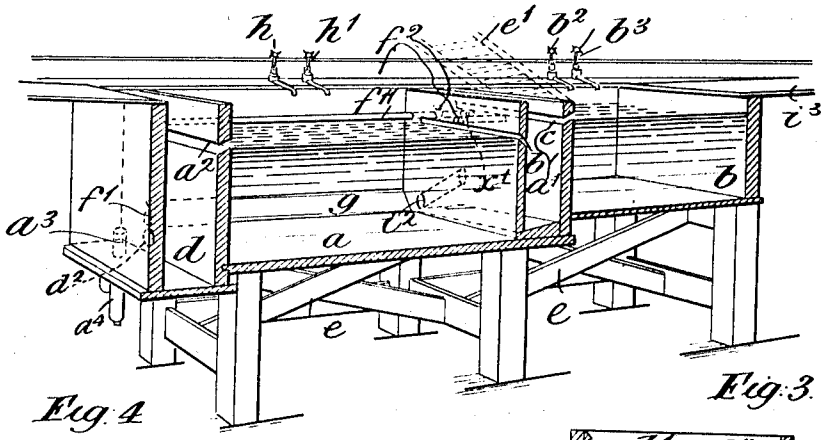


Fig. 4

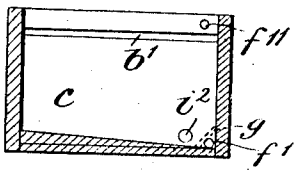


Fig. 3.

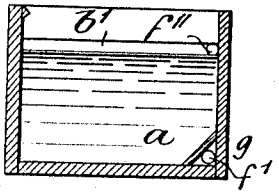
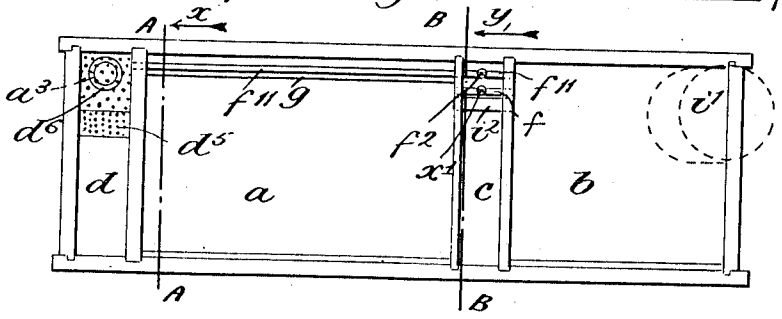


Fig. 2



Witnesses:

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H. D. Penney

Inventor:

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2 SHEETS—SHEET 2.

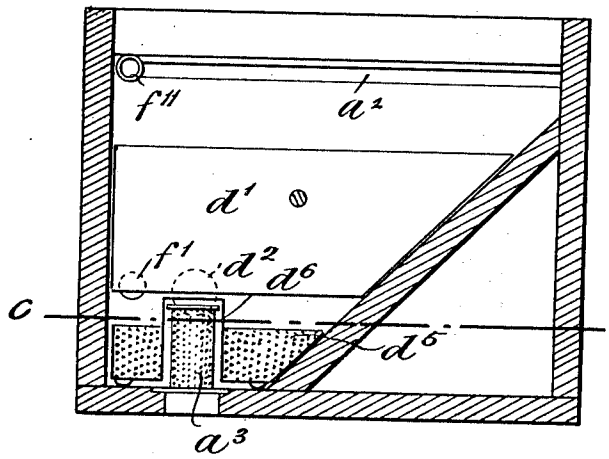

Fig. 5.

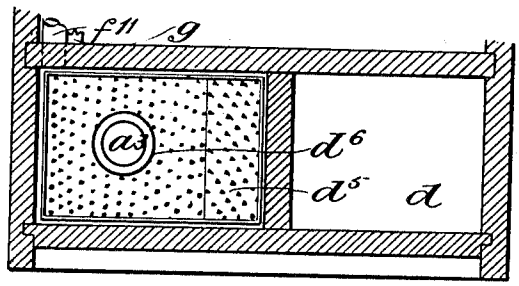

Fig. 6.

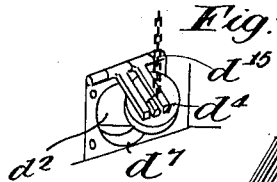

Fig. 8.

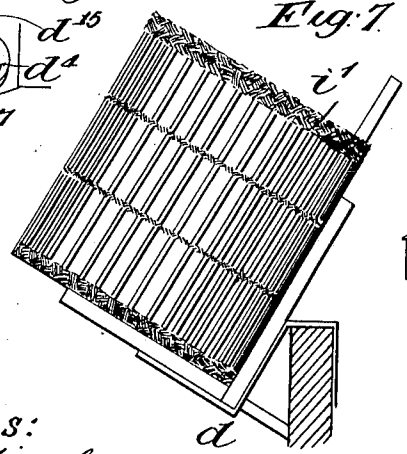

Fig. 7.

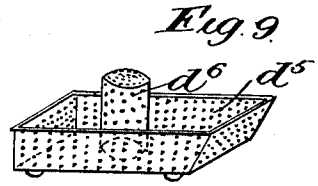

Fig. 9.

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UNITED STATES PATENT OFFICE.

FRANK STAINES, OF LONDON, ENGLAND.

DEVICE FOR WASHING CROCKERY AND THE LIKE.

1,040,450. Specification of Letters Patent. Patented Oct. 8, 1912.

Application filed June 10, 1911. Serial No. 632,379.

To all whom it may concern:

Be it known that I, FRANK STAINES, a subject of the King of Great Britain, residing in London, England, have invented certain new and useful Improvements in Devices for Washing Crockery and the Like, of which the following is a specification.

This invention relates to improvements in and relating to devices for washing crockery and the like, and it has for its object certain improvements in the aforesaid devices whereby the cleansing of the said devices may be more readily effected and whereby the contamination of the rinsing water by splashings from the water in the compartment in which the washing is effected may be avoided.

The invention further provides for the ready removal of scum or grease which may collect upon the surface of the water in the washing compartment without materially weakening the said water, which in order to facilitate the removal of the grease usually contains a fat or grease solvent or water softening ingredient.

These and other objects of the invention are hereafter more fully described and pointed out in the claims.

In order that the invention may be the better understood, drawings are appended in which:—

Figure 1. is a perspective view in section illustrating a device constructed in accordance with the present invention. Fig. 2. is a plan. Fig. 3. is a cross section on line A A, Fig. 2. looking in the direction of the arrow *x*. Fig. 4. is a cross section on line B B, Fig. 2. looking in the direction of the arrow *y*. Fig. 5. is a cross section to a larger scale of the final overflow receptacle showing the means employed for preventing the clogging of the overflow. Fig. 6. is a sectional plan on line C C, Fig. 5. Fig. 7. is a side elevation of a receptacle designed to receive the article after rinsing. Fig. 8. is a perspective view showing a preferred form of valve for controlling the passage of the water to the waste. Fig. 9. is a perspective view of a further strainer for the water.

Referring to the accompanying drawings, *a b c d* indicate compartments mounted upon and supported by a suitable underframe indicated generally by *e*. Of the compartments just referred to *a* and *b* indicate respectively the washing and rinsing compartments which are separated by means of the intermediate compartment *c* into which the contents of the compartments are permitted to overflow through the apertures a^1, b^1 formed respectively in the right and left hand wall of the intermediate or overflow compartment *c*. As will be noted, all the compartments are of different depths, the shallowest being the rinsing compartment *b*, the object of this arrangement being that the respective compartments may all be emptied, the liquid by reason of the difference of level flowing through the system until it reaches the final overflow compartment *d*. The compartment *d* is provided with a receptacle d^1 which has been omitted for the sake of clearness from Figs. 1 and 2, but which is shown in Fig. 5, and into which the draining and such solid matter as may be left upon the crockery, is cast prior to the washing of the said crockery. In addition to the aperture b^1, a second aperture a^2 is provided upon the inner wall of compartment *d* through which the liquid may escape into the said compartment *d* and from whence it escapes through the pipe a^3, to the drain.

While the device d^1 before referred to deals only with the matter thrown therein or with the water passing through from tank *a*, it is desirable that provision be made so that the pipe a^3 shall not become choked at such times as the receptacle d^1 is removed or when the washing compartment is emptied through the aperture d^2 controlled by means of the valve d^4 to be hereafter more fully described at which periods the water impinges directly against the pipe a^3, and it is possible that small particles of matter such as threads from the washing cloths, would become matted therein and so impede the flow of the water. In order that this end may be attained I provide a second receptacle d^5 which as shown in Figs. 2, 5, 6, and 9 is provided with a perforated tubular member d^6 adapted to fit over the pipe a^3, and which is supported upon the bottom of the overflow compartment *d* below the aforementioned receptacle d^1. As the receptacle

d^5 is readily removable, any solid matter or particles such as aforesaid are collected in the said receptacle which receptacle forms a part of the centrally located receptacle d^6 from which they may be readily shaken out or removed as occasion requires.

The valve d^4 just above referred to comprises a circular body mounted by means of a hinge, to the plate d^7 upon the inner face of the washing compartment. The valve is held closed by means of the pressure of water in the compartment a, and it is operated by means of a chain or cord d^{15} at such times as it is desired to empty the said compartment a. A suitable trap a^4 is interposed between the compartment d and the drains. The compartment b is supplied with hot and cold water by means of the taps b^2 b^3, and in order that the water may be kept free from contamination by grease or other undesirable matter which might be introduced by the crockery from receptacle a, I may provide a device such as indicated by e^1 in dotted lines in Fig. 1, and which device is in the present instance in the nature of an open rack or support arranged upon the inner wall of the compartment b and inclined so that the drippings or drainings from the crockery placed in the rack fall into the compartment c. By this means the crockery if left for a short time in the rack is freed from all the superfluous liquid that it might otherwise carry into the rinsing compartment b. Baskets or other receptacles may be placed in the rinsing compartment to receive the crockery when it is placed in the rinsing compartment.

Although as aforesaid the liquid in the compartment b overflows into the intermediate compartment c, I may in order to economize the water, provide a connection indicated by f, between compartments b and a, said connection being controlled by means of a tap x^1. By means of this connection as hot water is drawn off from time to time to maintain the temperature of the rinsing water, instead of running to waste, the water which would otherwise overflow into c, may be admitted from time to time to the washing compartment, the level of the orifice through which said water is admitted being above the level of the water in compartment a so that there is no chance of the water in the compartment a passing into compartment b. In addition to this arrangement should it be desired, I may provide for the passage of water from the compartment b to the final overflow d. This may be conveniently effected by providing a pipe f^{11} which passes from the upper end of the compartment b across c and a and enters the final overflow d as shown in Figs. 1 and 2. By this means should it be desired for any reason to remove the surface water in b, it may be permitted to pass through the pipe f^{11} its passage therethrough being controlled by means of the cock f^2. It will be observed that the bottom of the intermediate compartment c is inclined toward the rear left hand corner, and by this means any liquid that is in the compartment will run toward the corner and will pass through the pipe f^1 into the compartment d. The pipe f^1 runs through the back, and at the bottom of the compartment a, and in order to prevent any accumulation of undesirable matter at the back and bottom of said pipe, I prefer to inclose it by means of the inclined plate or board g which effectually prevents the accumulation of matter as aforesaid. The pipe f^1 at its end where it passes into compartment d is provided with a valve in the nature of a hinged flap such as d^4 hereinbefore referred to, and which valve or flap prevents the entry of any liquid from the compartment d.

h h^1 indicate hot and cold water taps arranged above the compartment a, and by means of which said compartment may be filled with water at the desired temperature and the said water maintained at the required level irrespective of the water which is splashed or driven through the apertures a^1, a^2.

By providing the washing compartment with overflow apertures at both ends, the scumming or clearing of the surface of the water in said washing compartment is much more readily effected than if only one such overflow were provided, as both during the actual washing operations and at such time as the water is drawn from the taps, the surface water passes away in both directions and a practically clean surface is maintained without any special attention on the part of the operator.

In order to facilitate the drying of the crockery when cleaned and at the same time avoid the slopping or splashing of water, I may provide a receptacle such as a basket, see i^1, Figs. 2 and 7, which is supported upon the partition at the end of the rinsing compartment. By this means the drainings from the rinsed crockery which otherwise would run back from the draining board or like contrivance i^3 into the rinsing receptacle are allowed to fall into the compartment b.

In order to enable the bottom of the compartment a to be effectively cleaned, I provide a pipe i^2 at the bottom of the compartment b, which enters the compartment so that the water admitted through said pipe i^2 runs with some force into the said compartment a and assists in removing any grease or other matter adhering to the bottom of said compartment. One or both of the ends of pipe i^2 may be closed by means of a plug or other suitable device, or a valve such as before described may be provided. By providing an intermediate compartment be-

tween *a* and *b* any chances of water being splashed from *a* to *b* is effectually prevented and at the same time a clean surface free from scum or grease is secured in compartment *a*, and this without any special attention to this end on the part of the attendant.

Claims:

1. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a communication between the said overflow compartment and the intermediate compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

2. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments, entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a communication between the said second overflow compartment and the intermediate compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

3. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a communication between the said second overflow compartment and the intermediate compartment, a surface at the bottom of said intermediate compartment inclined toward the opening of the communication between the intermediate and second overflow compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

4. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said overflow compartment and the intermediate compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

5. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said second overflow compartment and the intermediate compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

6. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the

washing and rinsing compartments entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said second overflow compartment and the intermediate compartment, a surface at the bottom of said intermediate compartment inclined toward the opening of the communication between the intermediate and second overflow compartments, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

7. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said overflow compartment and the intermediate compartment, a receptacle for solid waste in the second overflow compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

8. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said second overflow compartment and the intermediate compartment, a receptacle for solid waste in the second overflow compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

9. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said second overflow compartment and the intermediate compartment, a surface at the bottom of said intermediate compartment inclined toward the opening of the communication between the intermediate and second overflow compartment, a receptacle for solid waste in the second overflow compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

10. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said overflow compartment and the intermediate compartment, a strainer below the solid waste receptacle, an extension on said strainer surrounding the perforated extension on the bottom of the second overflow compartment.

11. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the wash-

ing and rinsing compartments entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said second overflow compartment and the intermediate compartment, a strainer below the solid waste receptacle, an extension on said strainer surrounding the perforated extension on the bottom of the second overflow compartment.

12. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said second overflow compartment and the intermediate compartment, a surface at the bottom of said intermediate compartment toward the opening of the communication between the intermediate and second overflow compartments, a strainer below the solid waste receptacle, an extension on said strainer surrounding the perforated extension on the bottom of the second overflow compartment.

13. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said overflow compartment and the intermediate compartment, a receptacle for solid waste in the second overflow compartment, a strainer below the solid waste receptacle, an extension on said strainer surrounding the perforated extension on the bottom of the second overflow compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

14. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said second overflow compartment and the intermediate compartment, a receptacle for solid waste in the second overflow compartment, a strainer below the solid waste receptacle, an extension on said strainer surrounding the perforated extension on the bottom of the second overflow compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

15. In a crockery washing device, a washing compartment, a rinsing compartment, an intermediate compartment separating said washing and rinsing compartments, a valve controlled communication between the washing and rinsing compartments, entering said washing compartment above the water line, a tap controlled communication between the rinsing and washing compartments, the wall between the washing and intermediate compartments having an overflow aperture, the wall between the rinsing and the intermediate compartments having an overflow aperture, a second overflow compartment, the wall of the latter having an overflow from the washing compartment into the second overflow compartment, a waste connection from the second overflow compartment, a perforated extension upon said waste, a communication between the said second overflow compartment and the intermediate compartment, a surface at the bottom of said intermediate compartment inclined toward the opening of the communication between the intermediate and second overflow compartments, a receptacle for solid waste in the second overflow compartment, a

strainer below the solid waste receptacle, an extension on said strainer surrounding the perforated extension on the bottom of the second overflow compartment, and a tap controlled communication between the rinsing compartment and the second overflow compartment.

In witness whereof I have hereunto affixed my signature in the presence of the two undersigned witnesses.

FRANK STAINES.

Witnesses:
J. HOLLINGS,
ALLEN F. CAINE.