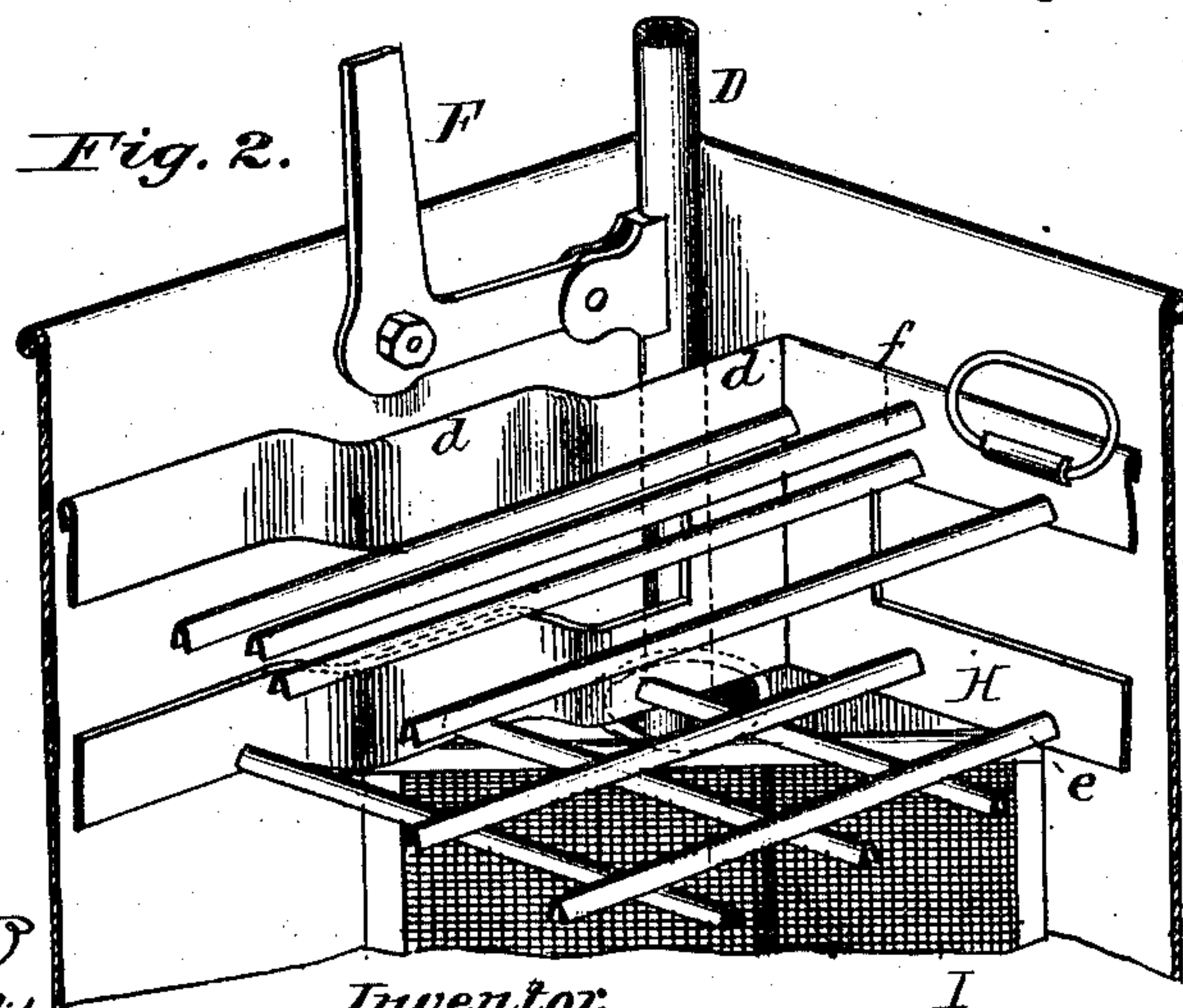
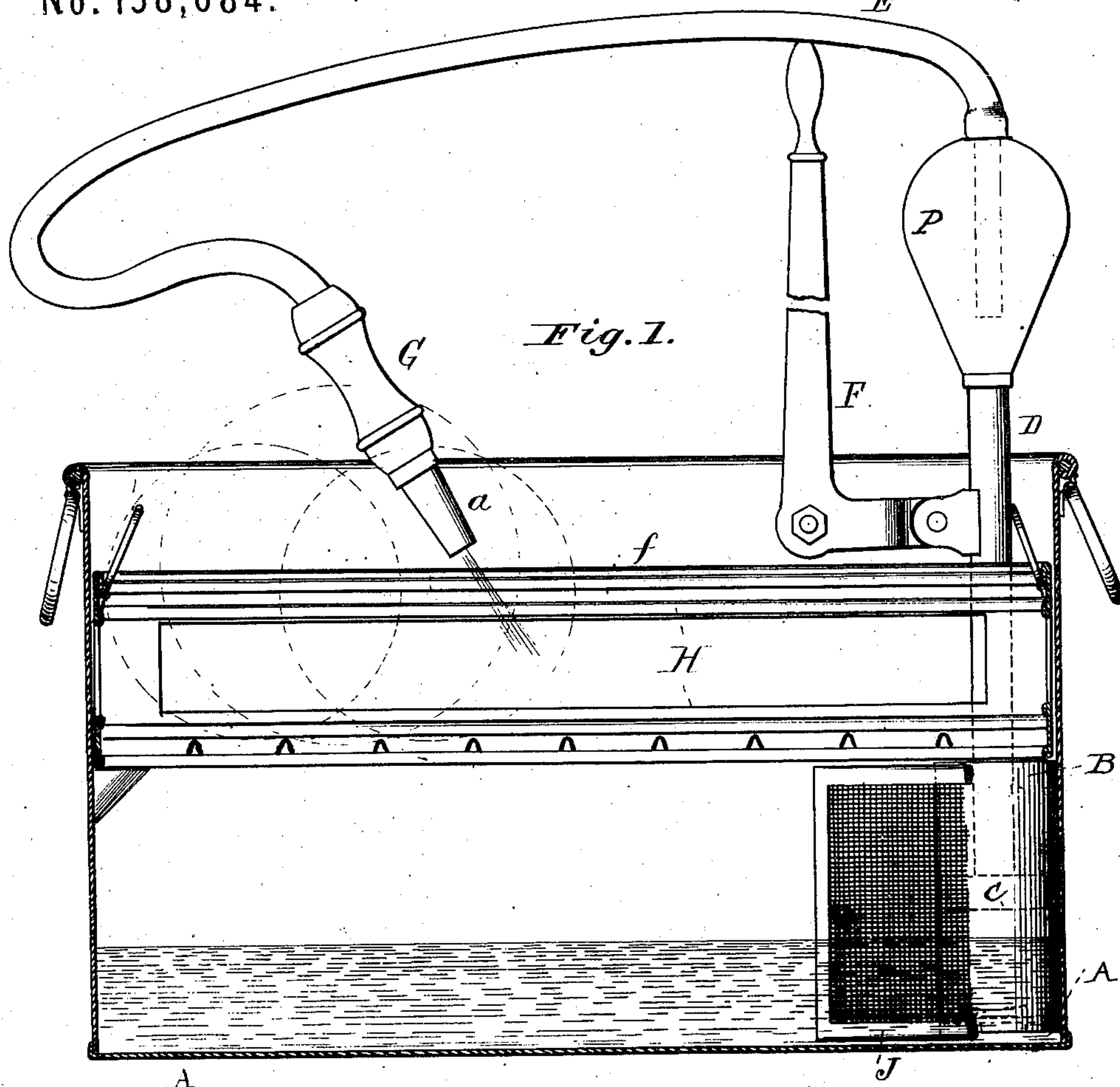


W. N. COSGROVE.
Dish-Washers.

No. 158,684.

Patented Jan. 12, 1875.



Witnesses:

J. S. Coombs
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Inventor:

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UNITED STATES PATENT OFFICE.

WILLIAM N. COSGROVE, OF FARIBAULT, MINNESOTA.

IMPROVEMENT IN DISH-WASHERS.

Specification forming part of Letters Patent No. 158,684, dated January 12, 1875; application filed October 10, 1874.

To all whom it may concern:

Be it known that I, WILLIAM N. COSGROVE, of Faribault, in the county of Rice and State of Minnesota, have invented certain new and useful Improvements in Dish-Washers, of which the following is a specification:

This invention has for its object to furnish a highly efficacious apparatus, whereby dishes and similar articles may be washed with celerity in a perfect and thorough manner; and to this end my invention consists in the combination and arrangement of devices herein-after described and explained.

In order to enable others skilled in the art to make and use my invention, I will proceed to describe the particular manner in which I carried it out.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of a dish-washer constructed according to my invention. Fig. 2 is a detail sectional view, representing the dish-tank or holder-rack, and relative arrangement of the pump and strainer.

The tank or holder A, which is generally made of a rectangular shape and of metal, is designed to afford proper facilities for containing and heating the water which is to be used in the cleansing operation. In one corner of the tank there is located a force-pump, consisting essentially of a stationary cylinder, B, a piston, C, and a hollow piston-rod, D, to the upper end of which is attached an inverted cone-shaped bulb, P, into which the water from the pump flows until it becomes filled, when the water seeks an exit through the flexible discharge-hose E. The object of the bulb P thus introduced between the hollow piston-rod D and the discharge-hose E is to secure a regular and constant flow of the water during the operation of washing. It is evident that but for the introduction of the bulb, the action of the pump would be more or less intermittent. The bulb, however, acts as a reservoir, from which a supply of water from the pump is caused to flow with greater regularity. Thus it becomes an essential feature of my invention. The cylinder B possesses the usual induction-valves common to pumps, and the piston which operates in the same is packed with vulcanized india-rubber, so as to render the action of the pump simple and per-

fect. The tubular piston-rod is connected with the shorter arm of an elbow-lever, F, which is pivoted at the side of the water-tank or dish-holder, and designed, by working the same, to impart a vertical reciprocating movement to the pump piston or plunger. The flexible water-distributing hose E is made of india-rubber tubing, and it is provided with an end nozzle, a, and with an encircling sleeve or handle, G, located in proper respect thereto. Said sleeve, which is made of wood or other suitable material, serves as a handle for manipulating the hose with impunity, for wood being a non-conductor of heat, the hot water passing through the hose cannot burn the hand of the person handling the hose.

The dishes to be cleansed or washed are placed upon a rack, H, which is placed in the holder or tank, and retained at a proper distance above the water-line. The rack, which, properly termed, comprises two racks or grates, e f, fitted securely in a surrounding frame, one above the other, has one of its sides reduced in width, or provided with offsets or shoulders d, as shown in Fig. 2, the object of this construction being to enable the rack to fit properly into the tank at the point or corner where the pump is located. The double rack is chiefly designed to support dishes in an upright or edgewise position, and for this purpose the lower rack or grate e is composed of longitudinal and transverse bars for supporting the lower ends of the dishes, while the upper rack is composed of longitudinal bars, which serve to prevent the dishes from slipping out of place. The water after having been heated by placing the apparatus on a stove, or otherwise, is discharged through the nozzle of the flexible hose in such a manner as to impinge or act upon the dishes with sufficient force to remove all adhering dirt or impurities. The water after having acted upon the dishes falls to the bottom of the tank, from whence it is again drawn up, so as to be repeatedly used until it is dirty, or all the dishes are cleansed.

In order to prevent solid matters, fats, and other impurities floating in the water from passing into the pump, I locate in front of the same a wire-gauze screen or strainer, I, which is attached to the side walls of the tank. This

strainer effectually prevents the entrance of anything else than water into the pump; but in order to guard against the entrance of fine sediment, which generally sinks to the bottom, I provide the screen with a narrow imperforate border, J, for the object stated.

The great advantage derived by my invention is that the water can be thrown wherever wanted, and be drawn from the bottom of the tank free from all impurities.

What I claim is—

A dish-washer, constructed as described,

and consisting essentially of the tank A, a force-pump provided with the bulb or reservoir P, the strainer I, having the solid board J, and the pipe E with its handle G and nozzle a, substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

WILLIAM N. COSGROVE.

Witnesses.

LEWIS MAISTO,
VERNON BELL.