

(No Model.)

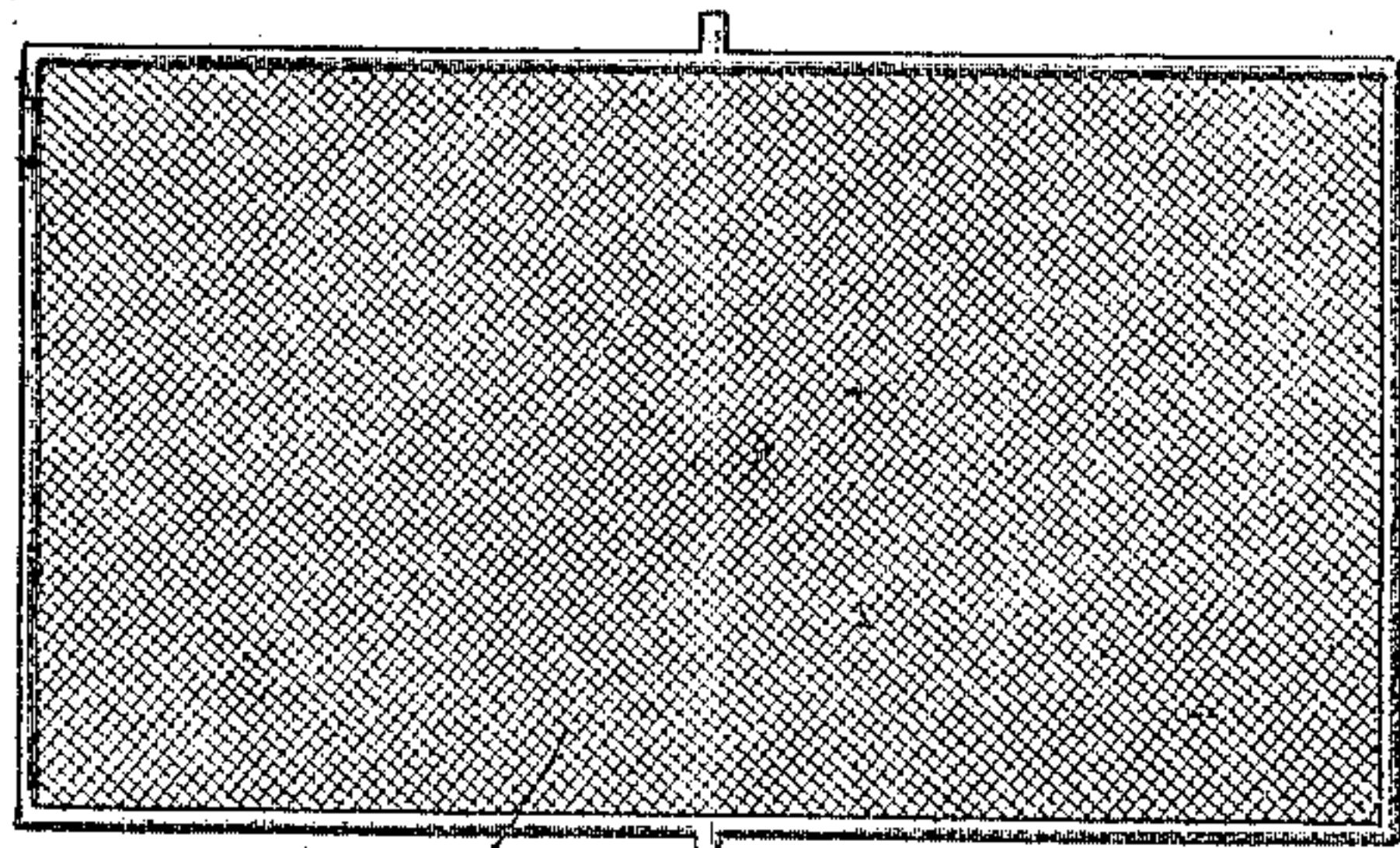
2 Sheets—Sheet 1

M. A. WILCOX.  
COMBINED CLOTHES AND DISH WASHER.

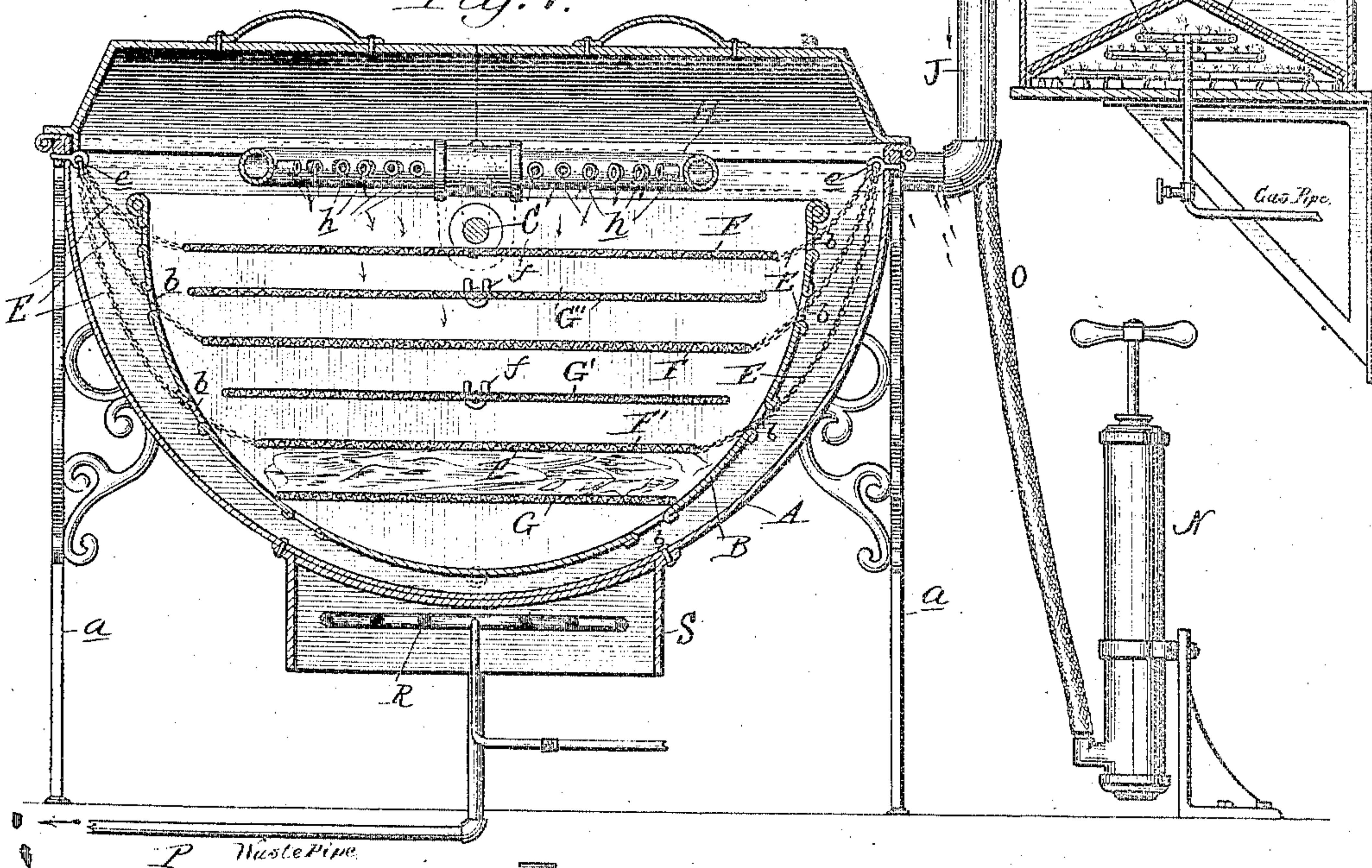
No. 426,486.

Patented Apr. 29 1890.

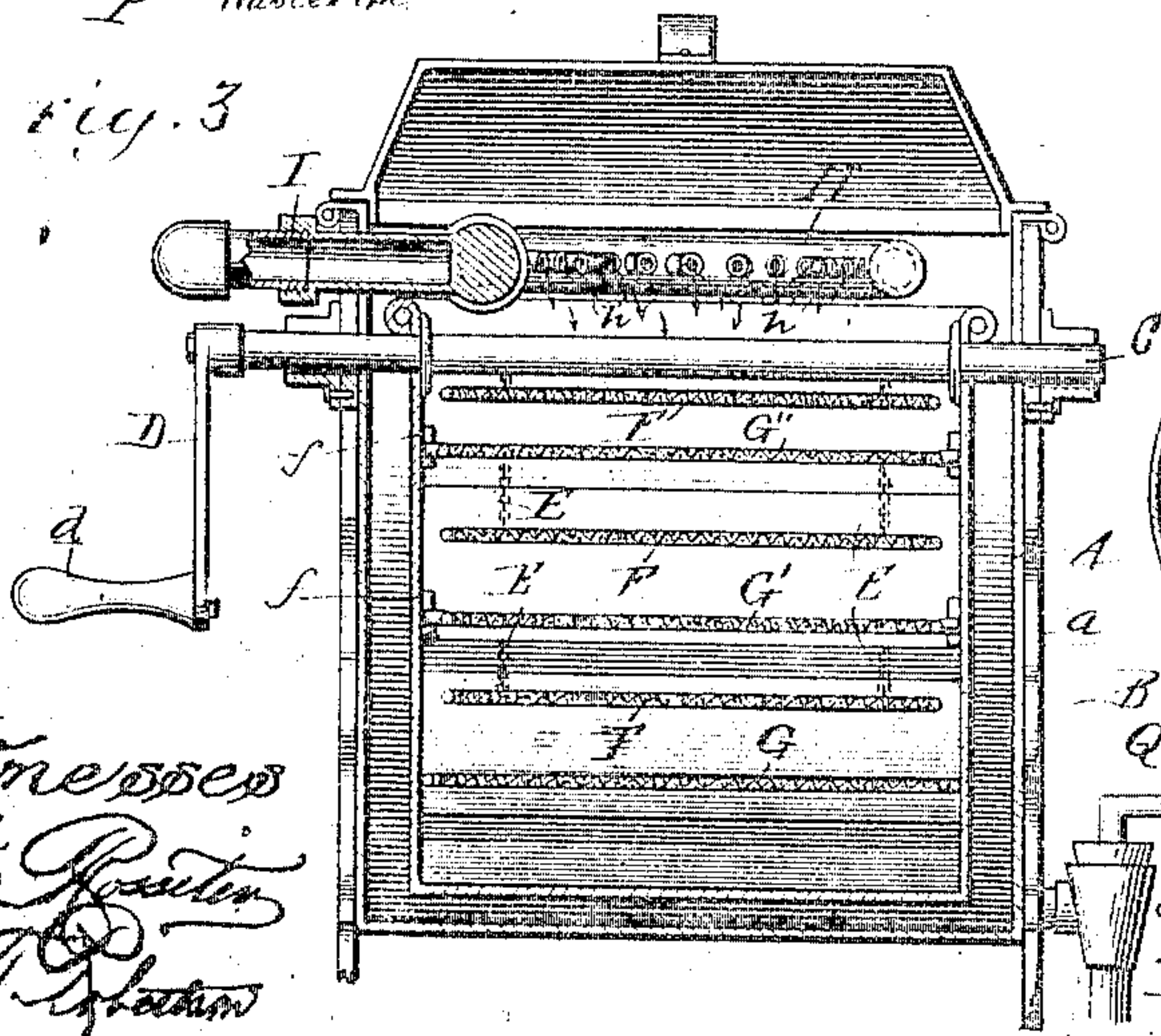
*Fig. 2.*



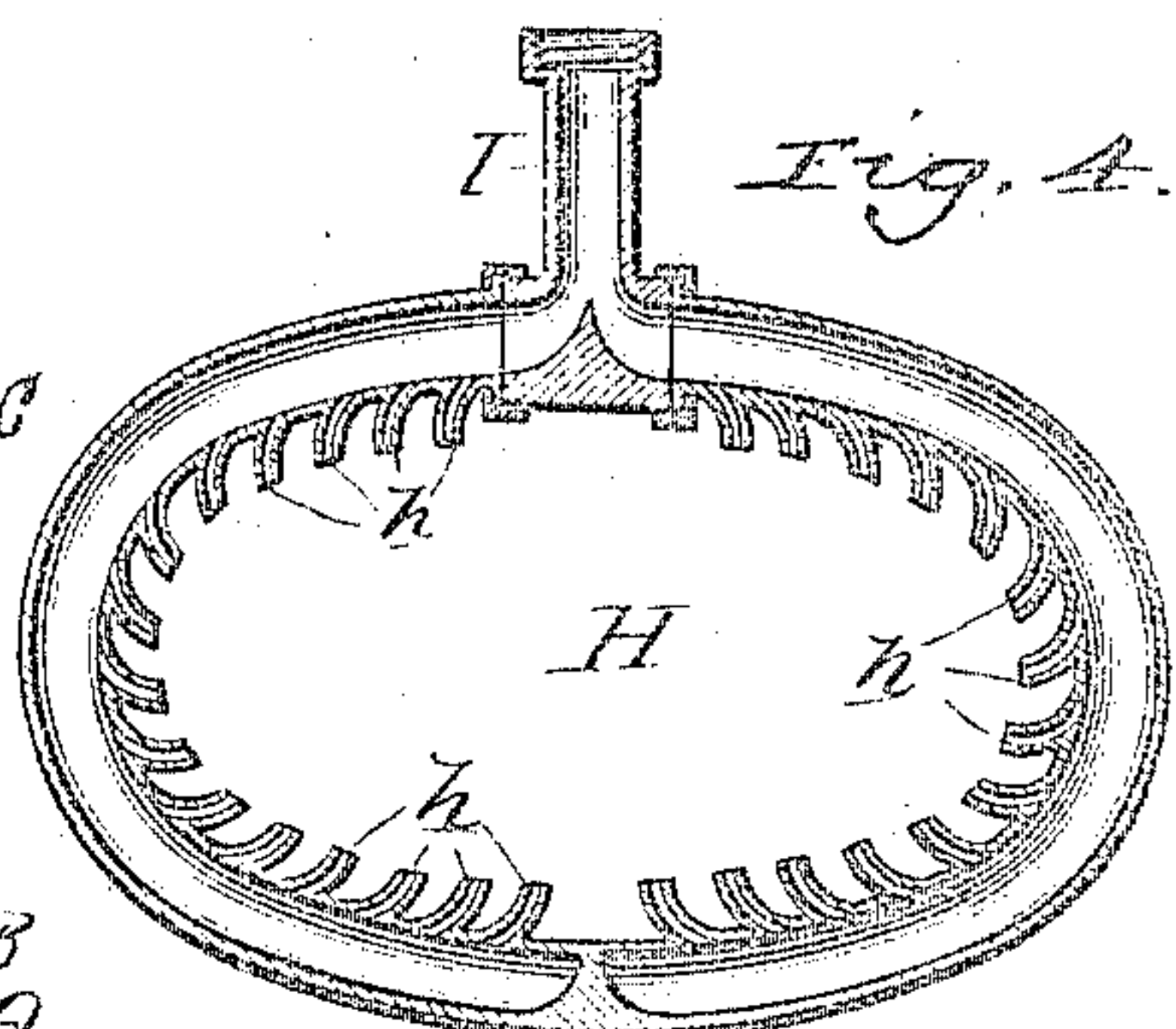
*Fig. 1.*



*Fig. 3.*



*Fig. 4.*



Witnesses  
H. R. R. R.  
H. R. R. R.

Inventor  
M. A. Wilcox  
By J. W. Robertson  
Att'y.



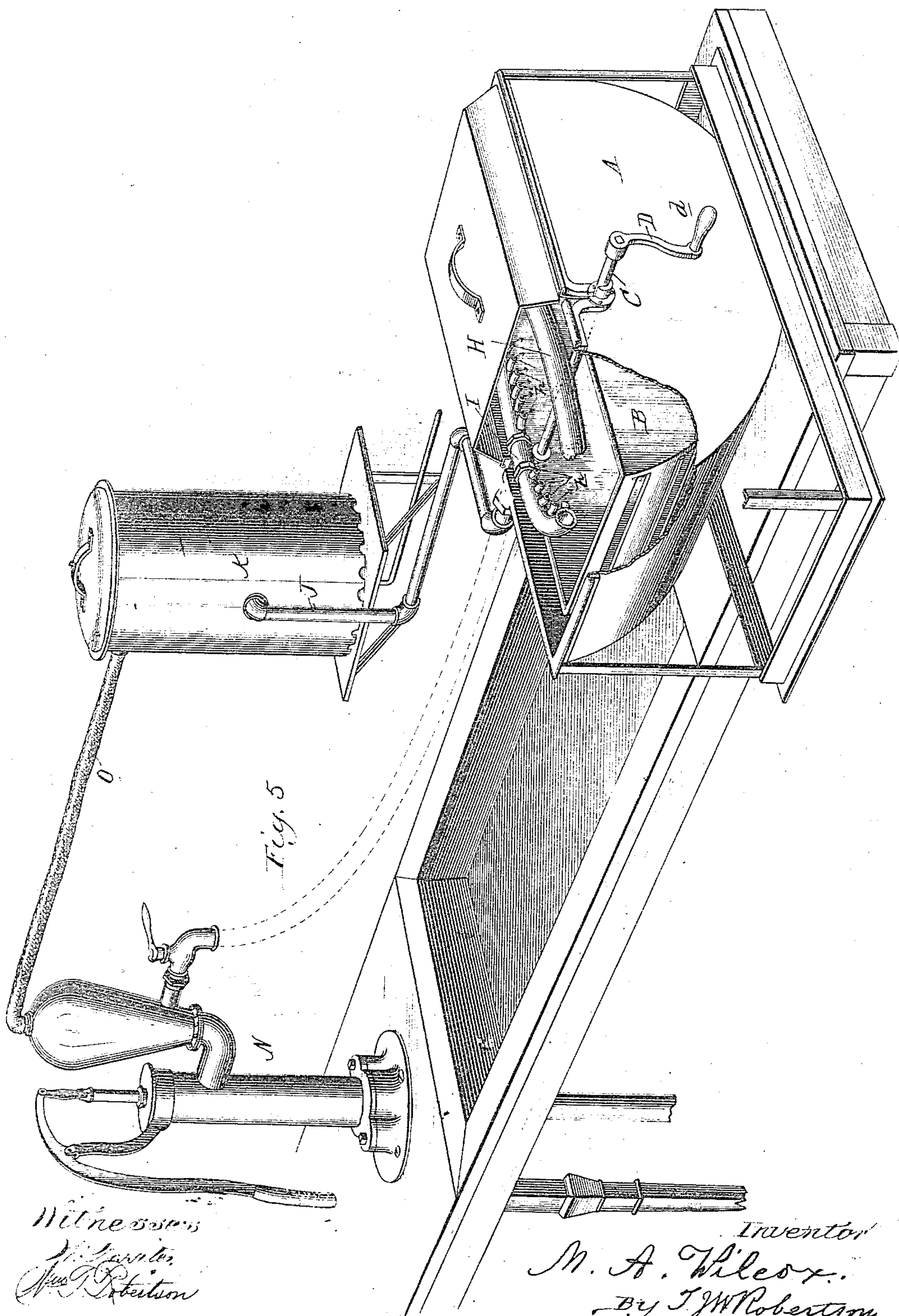
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2 Sheets—Sheet 2.

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COMBINED CLOTHES AND DISH WASHER.

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# UNITED STATES PATENT OFFICE.

MARGARET A. WILCOX, OF CHICAGO, ILLINOIS.

## COMBINED CLOTHES AND DISH WASHER.

SPECIFICATION forming part of Letters Patent No. 426,486, dated April 29, 1890.

Application filed April 25, 1889. Serial No. 308,558. (No model.)

*To all whom it may concern:*

Be it known that I, MARGARET A. WILCOX, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Combined Clothes and Dish Washers, of which the following is a specification, reference being had therein to the accompanying drawings.

This improvement relates to a washing-machine of that class in which there is a fixed semicircular tank or tub to receive the operating parts, and which may also be utilized for washing either clothes or dishes; and the invention consists in the peculiar arrangement, combination, and construction of parts, hereinafter described, and then definitely pointed out in the claims.

In the accompanying drawings, Figure 1 shows a vertical central longitudinal section of a machine constructed according to my invention. Fig. 2 represents a wire mat or shelf to be used therewith as a rubbing-surface. Fig. 3 is a vertical central cross-section of the machine. Fig. 4 is a horizontal section of a water-distributor. Fig. 5 is a perspective view of a modification with parts broken away and most of the screens removed.

Referring now to the details of the drawings, and more particularly to the machine shown by the first four figures, A represents the outer tank or tub, being semicircular in form and supported on ornamental legs *a*. Within this tank swings the cradle B on a shaft C, which is rocked by the crank D and handle *d*. This cradle has slots or openings *b*, through which are passed chains E, one end of each being fastened to ring *e*, fast in the tank, and the other end attached to one of the mats or rubbing-surfaces F F F. Besides these mats F there are three other mats or rubbing-surfaces G G' G'', the lowest of which G rests on the curved sides of the cradle, while the others have trunnions *f f*, which rest in sockets on the vertical sides of the cradle. Above the cradle is a water-distributor, preferably made in the form of a hollow oval ring H, having a series of small nozzles *h* projecting therefrom, with curved passages connecting with the interior of the distributor. At one side the dis-

tributer is connected with a T I, which passes through the side of the tub or tank A, and the T and distributor are so connected that the latter can be raised at right angles to its normal position, in order that the clothes may be readily inserted or removed. The T is connected by piping J with a boiler of any convenient kind, but preferably with that shown at K, which has a concave bottom *k*, beneath which is a series of circles of gas-jets L for heating the water. This boiler is preferably connected with the city water-pipes by the pipe M; but where there is no such convenience a pump N, of any convenient form, may be used, and which may be connected with the boiler by a pipe O. Where gas is not convenient, gasoline or kerosene burners may be substituted for the gas-jets shown.

The tank A is provided with a waste-pipe P and cock Q, to allow the water to be drawn off as required. Below the tank A is shown a coil of gas-pipes R, by which the water may be heated, if preferred, or the heat kept up, as desired. Surrounding this gas-pipe is a short tube or petticoat S, by which the heat is retained around the bottom of the tank. The bottoms of the tank and boiler are both preferably double to prevent injury to the inner bottom of said tank and boiler.

In Fig. 5 the arrangement of parts is somewhat different, the washer being set on one end of an ordinary kitchen-sink, and is shown without the upper mats and without the gas-heater beneath it. Instead of the pump shown in Fig. 1, one of different form is employed, such as is commonly used in connection with sinks where there is no water-service. A pipe is shown in dotted lines connected with the faucet on the pump, by which water directly from the pump may be used, if desired, for any purpose. Either of these arrangements of parts may be used as desired for a clothes-washer or for washing dishes; but of course when the apparatus shown in Fig. 5 is used for washing clothes the mats should be used, and if the apparatus shown in Fig. 1 is to be used for washing dishes the mats should then be removed, excepting the lower one.

The tank is preferably made of galvanized



iron and the cradle of zinc, and all the iron parts should be galvanized, zincked, or tinned to prevent the "iron-molding" of the clothes.

The operation in washing clothes is as follows: The distributor being raised and the lower mat G in place, a layer of clothes most soiled is set thereon. Then one of the mats F is set in and its chains passed through the slots and connected with the rings e. Then the mat G is set in place, another layer of clothes set on it, and so on until all are in place, the fine small articles being on top, as they need no rubbing. The distributor is then turned down, the water turned on, and the covers T shut down tight. The cradle is then gently rocked by the crank for a few minutes, (not more than three, usually,) after which the faucet at the bottom is turned to allow the suds to run out. The waste-faucet is now closed and more boiling suds is drawn from the tank above, and the cradle is again rocked a little more and then allowed to rest for a few moments. Then the suds are drawn off and more hot water allowed to run through until it runs clear, after which the bluing-water can be prepared, and after swinging the clothes back and forth they can be wrung from the tank into a basket placed beneath, so that the entire washing may be quickly and readily done without the least fatigue. The currents of water from the distributor alone will have a good effect in cleaning the clothes; but the most of the work is done by the mats, which move one over the other. Three of the mats are comparatively stationary, being held so by the chains, while the others move with the rocking of the cradle, thus producing a gentle friction, which cleans the clothes without injuring them. The interstices between the coils of wire in the mats allow spaces for the passage of the air and water, which, with the suction caused by the motion of the cradle, rapidly and thoroughly removes the dirt from the clothes without the wear incidental to the usual mode of washing.

After the washing is done the machine can be used for washing dishes. All the mats but the bottom one should be removed and the dishes set in the cradle, either loose or in baskets or racks, and then the distributor turned down, the cover put on, and the water (which should always be boiling hot) turned on, when the peculiar arrangement of the nozzles of the distributor will cause the water to pass over and thoroughly wash every part of all the contents.

While washing dishes, &c., the faucet in the waste-pipe communicating with the sewer should be open, in order that all the water may run off as fast as it runs into the tank, so that the water does not come into contact with the dishes a second time.

The mat or screen at the bottom will prevent any scraps that may have been on the

dishes from passing into and clogging the waste-pipe.

The use of boiling water prevents the grease from adhering in any quantity to the mats or pipes, as it otherwise would if allowed to remain in the cradle or tank for any length of time; but should there be any trouble from this cause a strong solution of washing-soda will quickly remove any grease that may be found upon any part of the machine. By keeping the water as hot as possible a large quantity of dishes, knives, forks, spoons, &c., may be made ready to place upon the table in the shortest possible time, for if the water is kept at the proper degree of heat the dishes, &c., being very hot will dry very quickly without the use of towels.

Care should be taken to so place the dishes, cups, saucers, &c., that the water will readily drain out of them, as otherwise the scraps might be retained in some of them, and if water could remain in them of course they would not dry.

It will thus be seen that by my apparatus a week's wash and the dirty dishes of two or three days may be cleaned in a few hours with very little or no fatigue.

For convenience in drawing I have shown the heater but a little above the washer; but in practice it is preferable to have it raised considerably higher, so as to give a good pressure to the water as it issues from the distributor.

Of course in a house provided with the ordinary upright range-boiler the heater should be connected with such boiler and the water thus heated; but where such boilers are not in use the heater should be made sufficiently large to heat all the water wanted to the boiling-point.

What I claim as new is—

1. The combination, in a washer, of a tank or clothes-receptacle, a water-pipe, and a distributor having a joint at the junction of the distributor and the water-pipe, constructed to allow of the distributor swinging upward, substantially as described.

2. The combination, in a washer, of an outer tank, a cradle therein, a water-pipe, a T at one end thereof, a distributor jointed to the T by a movable joint to allow it to swing upward, and having its opposite ends in connection with the opposite arms of the T, whereby the water passes into said distributor in opposite directions, substantially as described.

3. The combination, in a washer, of an outer tank, a cradle therein, a set of rubbing surfaces arranged to hang in said cradle independently of the same, a second set of rubbing-surfaces, also set in said cradle and moving between the first set of rubbing-surfaces, substantially as described.

4. The combination, in a washer, of an outer tank, a cradle therein, two sets of rubbing-surfaces set in said cradle, one set being



suspended independently of the cradle, and  
the members of the other set being arranged  
alternately with the members of the first set  
and connected to and moving with the cradle  
5 and between the members of said first set,  
substantially as described.

In testimony whereof I affix my signature,

in presence of two witnesses, this 22d day of  
April, 1889.

MARGARET A. WILCOX.

Witnesses:

C. W. HASKINS,  
WM. A. RAPIER.