

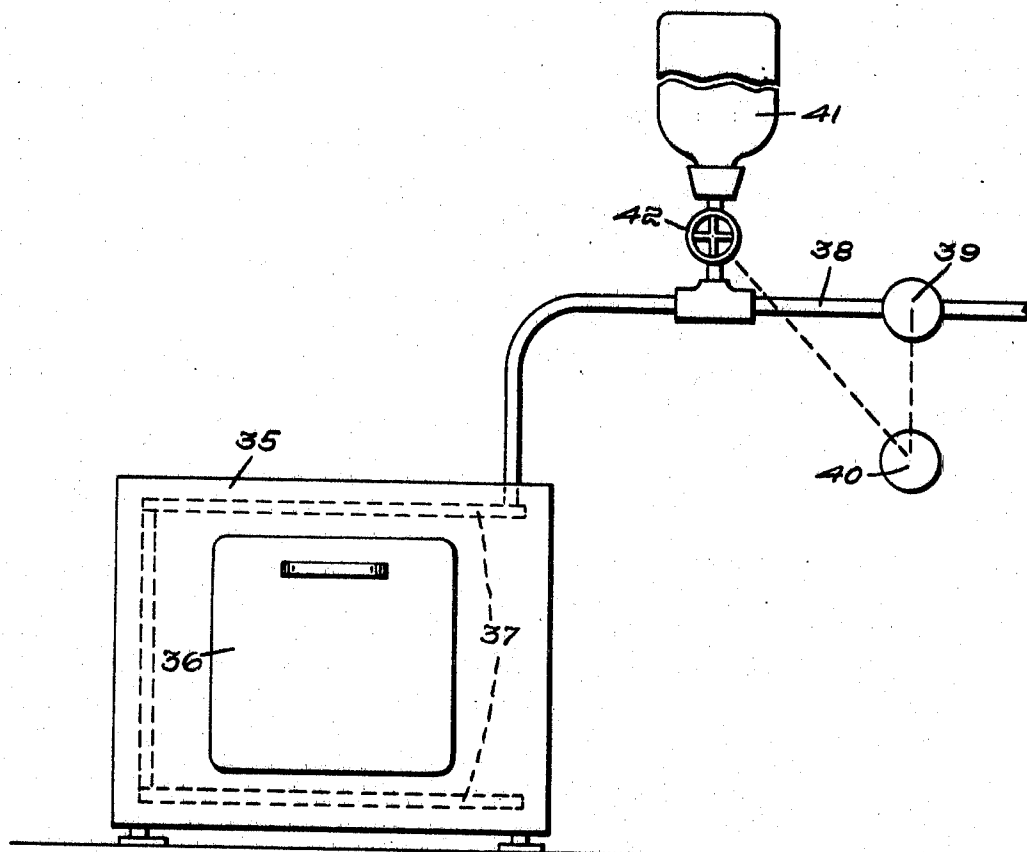
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RINSING SYSTEM FOR DISHWASHING MACHINES

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RINSING SYSTEM FOR DISHWASHING
MACHINES

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Patent No. 3,363,636, dated Jan. 16, 1968. Divided
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1 Claim

ABSTRACT OF THE DISCLOSURE

A rinsing system for a cycling type of dishwashing
machine controlled by a timer. The system is designed to
rinse the dishes first in clear water and then in water to
which a drying agent has been added. An injector for the
drying agent is installed on the machine and operated by
a valve controlled by the timer. The valve is opened only
during the latter part of the rinsing cycle.

This application is a divisional application of my pre-
vious application Ser. No. 521,594 filed Jan. 19, 1966 and
now Patent No. 3,363,636.

This invention relates to dishwashing machines and
more particularly to rinsing systems for machines of the
commercial type.

Most State laws require that dishes for use in public
places, such as restaurants, be rinsed with a certain quan-
tity of fresh water in the final rinse stage. It is also custom-
ary to introduce a drying agent into the final rinse water
to insure that the dishes dry quickly. The object of this
invention is to provide a rinse system which satisfies the
requirements for the quantity of rinse water used, and
effects a substantial saving in the amount of drying agent
which is needed in the final rinse.

According to this invention the drying agent is intro-
duced during the last portion only of the final rinse cycle.
The invention here disclosed is suitable for the door type
of dishwasher, which is cycled in the customary manner
by a timer. An injector for drying agent is installed on
the machine and operated by a valve controlled by the
timer. The valve is opened only for the latter part of the
rinsing cycle. Other objects, advantages, and novel fea-
tures of the invention will be apparent from the following
description.

The drawing is a side elevation of a cycling type of
dishwashing machine on which a rinsing system con-
structed according to the invention is installed.

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The drawing illustrates a typical door type of machine
having a housing 35 and a door 36 through which racks of
dishes are inserted and removed. The machine contains
spray pipes 37 which are connected to a water supply
line 38 controlled by a valve 39. The machine is run
through various washing and rinsing cycles in the usual
manner by a timer 40 which controls the opening and
closing of valve 39. As is customary, the last stage of the
cycle is the final rinse. A drying agent injector 41 is con-
nected through a valve 42 to pipe 38, valve 42 is also con-
trolled by the timer 40. The timer is set so that valve 42
opens during only the last portion of the final rinse stage.
For example, if the time cycle for the final rinse is 12
seconds, valve 42 opens during only the last three to four
seconds. The dishes are thus rinsed with clear water for
the first part of the final rinse cycle, and with the water
to which the drying agent has been added to produce the
usual concentration during the last part of the cycle. This
arrangement produces the same drying effect, while using
only about a third of the amount of drying agent, as com-
pared to the usual systems in which drying agent is in-
jected during the entire final rinse cycle.

The extra timer contact, can be added, at very little
expense, to new machines or to existing machines. This
system effects a substantial saving in the cost of operation
because of the smaller amount of drying agent required.

What is claimed is:

1. A dishwashing machine, having a final rinse stage,
comprising water supply pipe for said final rinse stage, a
first control valve mounted on said supply pipe, a device
for supplying drying agent connected to said pipe and in-
cluding a second control valve, and a timer controlling
both said valves and adapted to open the first valve and
subsequently open the second valve, said timer being
adapted to hold said first valve open for a predetermined
period and open said second valve after substantially two-
thirds of said period has run.

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