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2,653,618

SOAP AND DETERGENT DISPENSER FOR WASHING MACHINES

Filed April 29, 1950

FIG. 1.

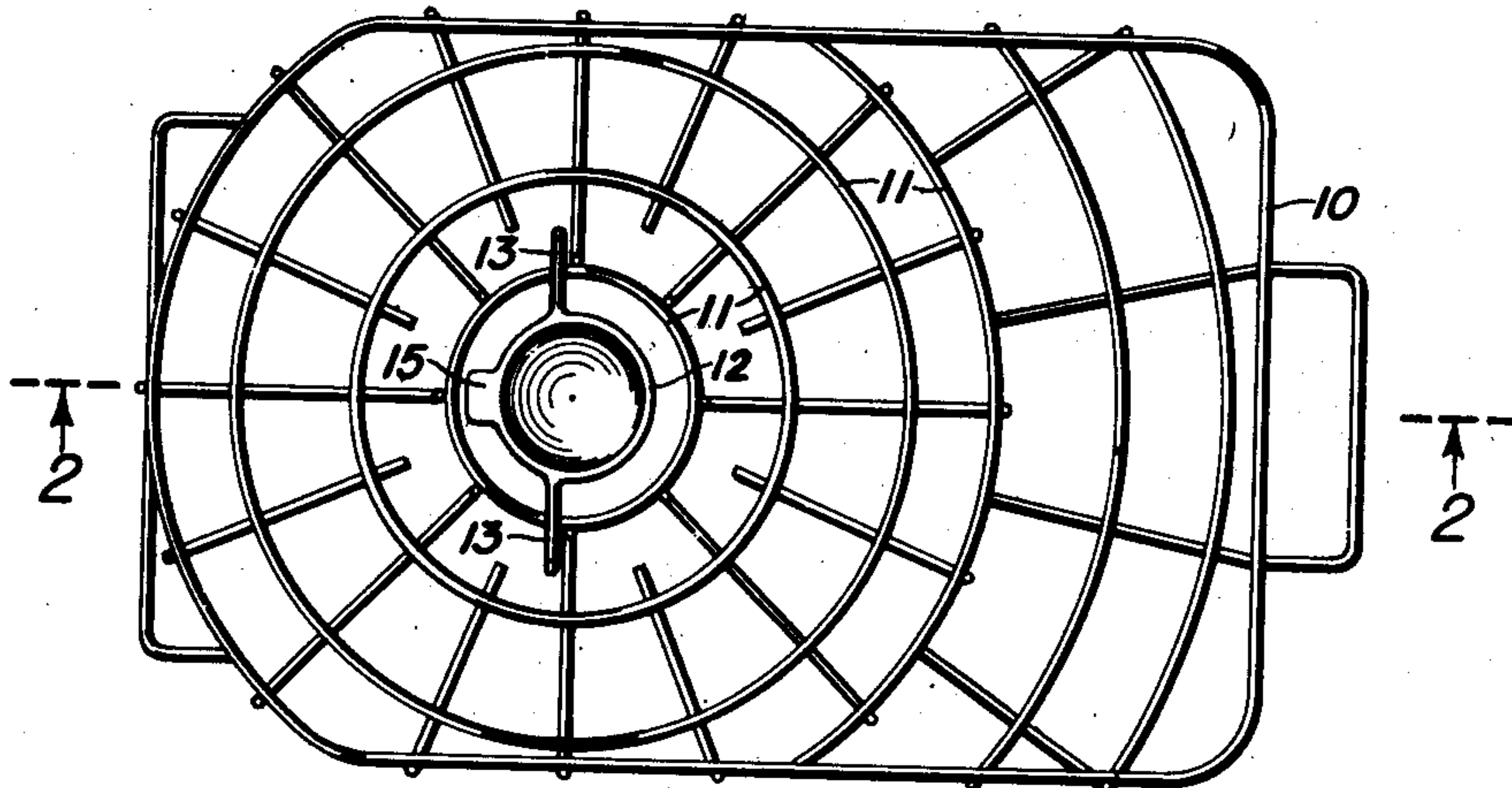


FIG. 2.

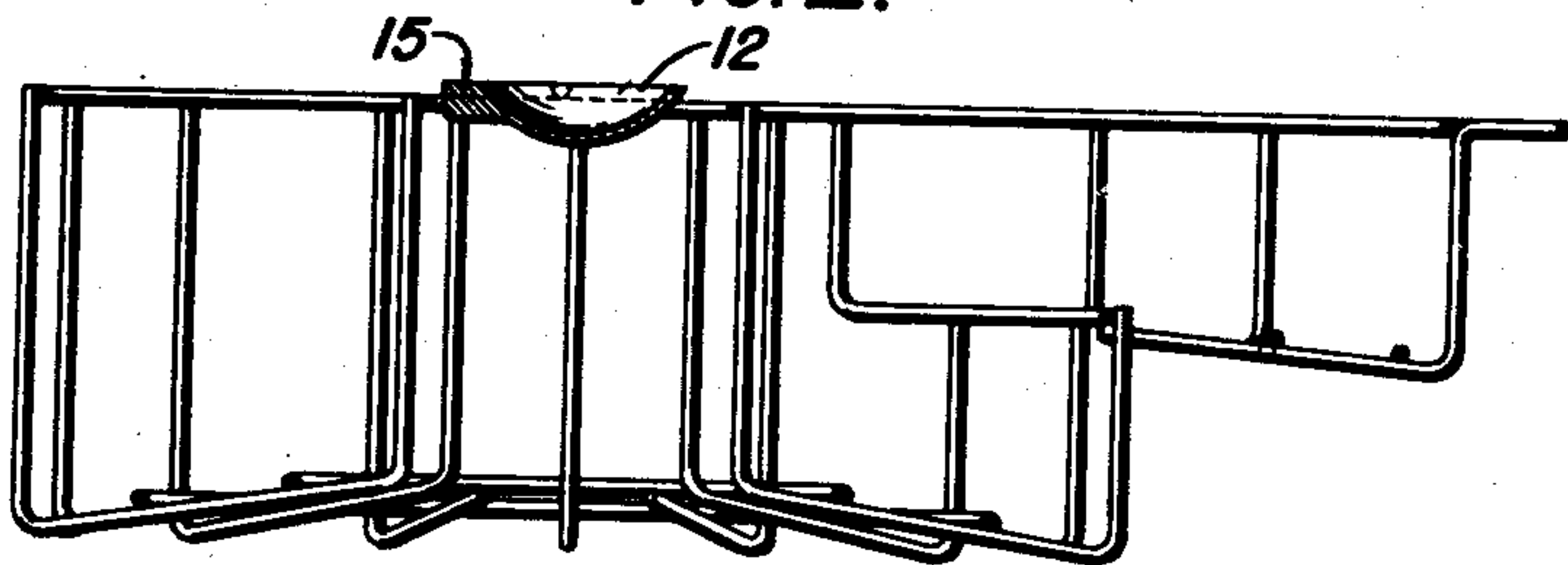


FIG. 3.

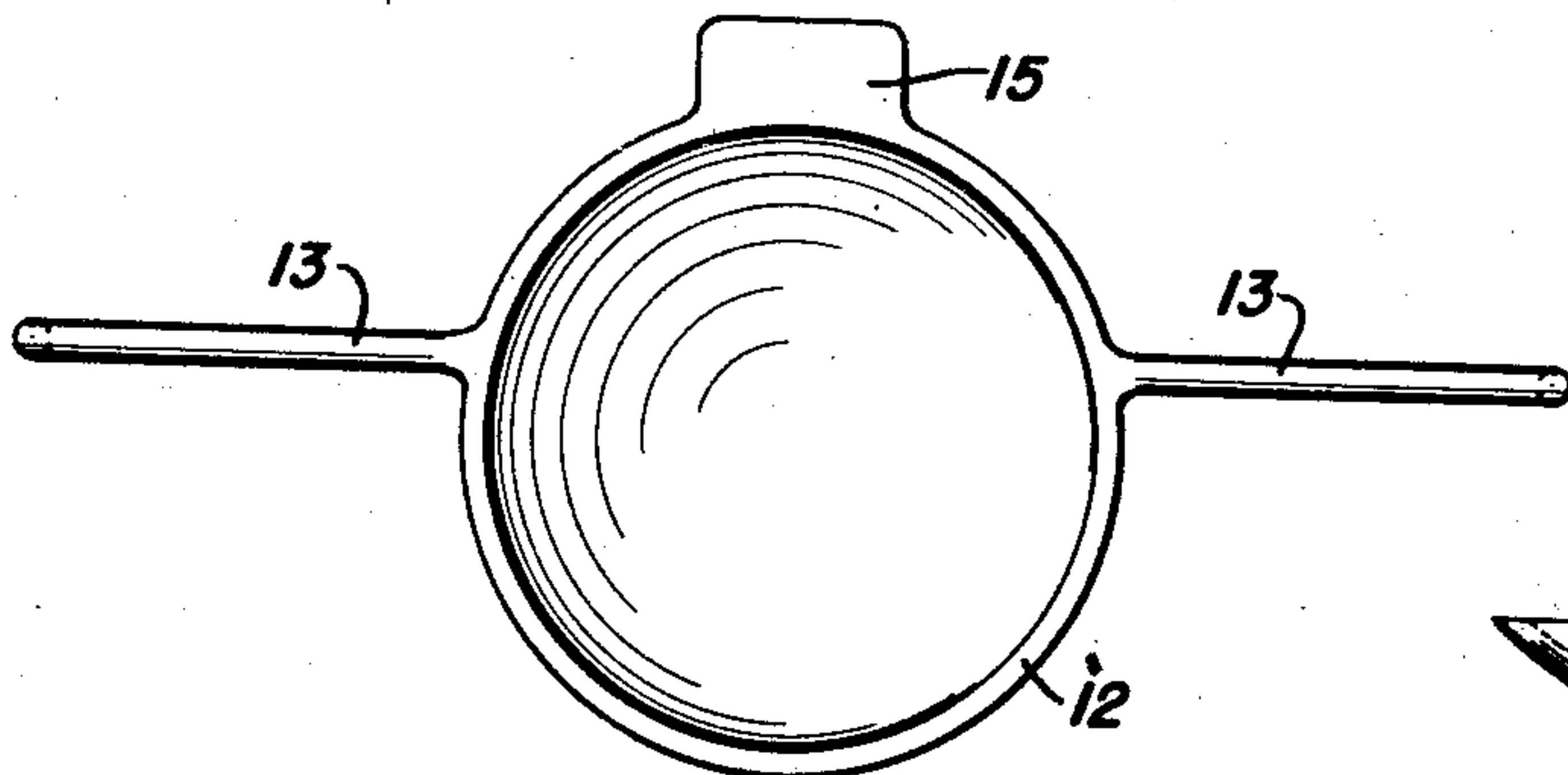


FIG. 5.

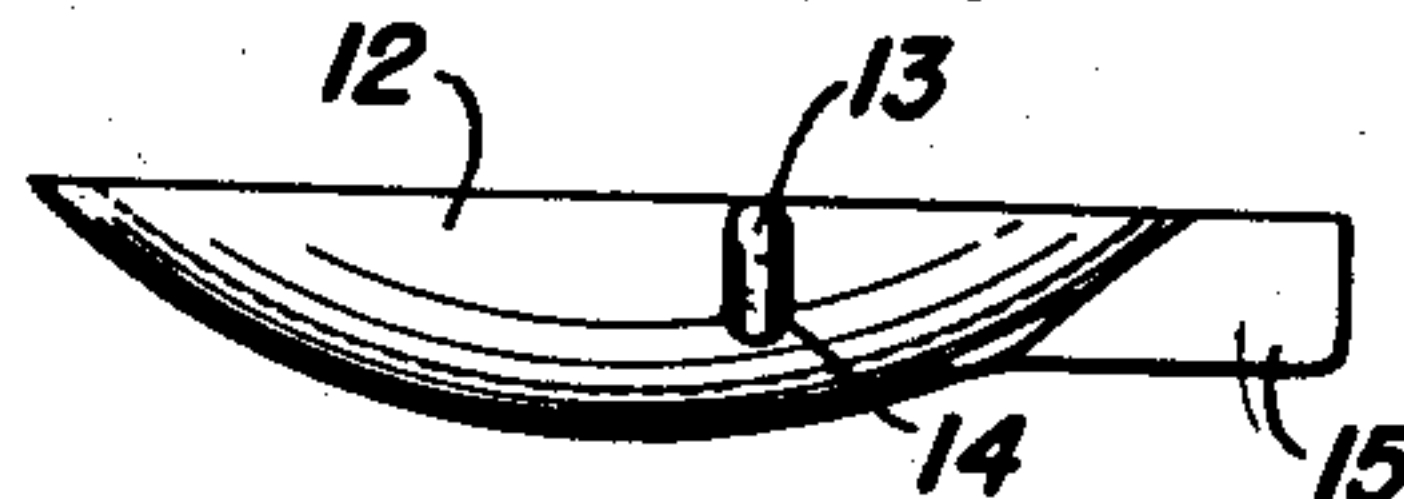
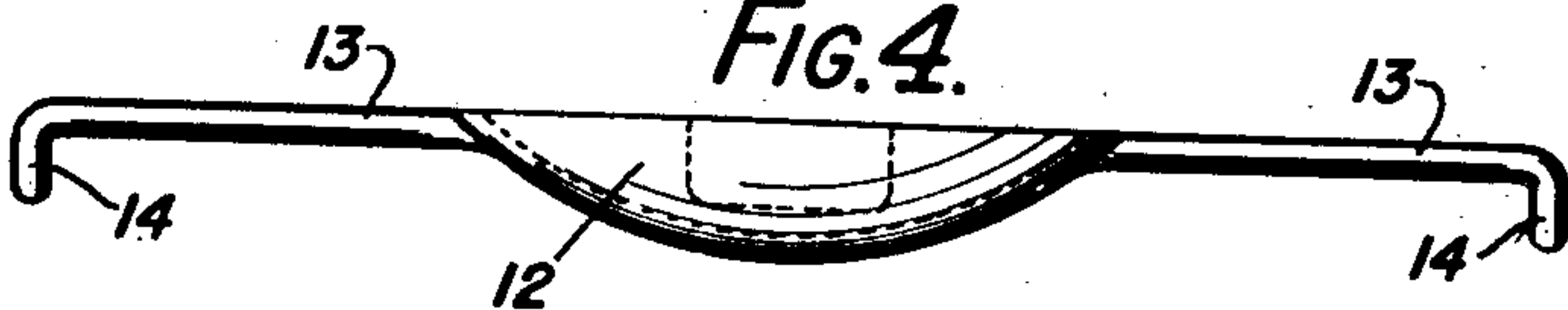


FIG. 4.



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SOAP AND DETERGENT DISPENSER FOR WASHING MACHINES

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2 Claims. (Cl. 134-93)

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The present invention relates to dispensers and more particularly to dispensers for use on automatic dishwashers, clothes washing machines and similar machines for dispensing the soap or detergents required in such machines.

It is not practical to put a liquid soap or liquid detergent in a dish-washing or clothes-washing machine before the water is turned on because the liquid soap or detergent might get into the bearings of the machine to the detriment of the bearings as well as being partially wasted. It is not practical either to turn the water on and then put the liquid soap or detergent in the machine because the water comes into the machine with such force that the machine has to be closed, before the water is turned on; otherwise the hot water will splash over the housewife or all over the floor. It is usual, therefore, to sprinkle powdered soap into the machine before turning on the water. Powdered soap dissolves slowly, however, and undissolved particles of powdered soap may cling to dishes or glasses in a dishwasher and to clothes in a clothes-washer. Liquid soap or liquid detergent dissolves almost instantly in water thereby assuring more efficient washing.

The primary purpose of the present invention is to provide a dispenser which will make possible the practical use of liquid soaps and liquid detergents in washing machines.

Another object of the invention is to provide a container for use in an automatic washing machine for holding liquid soap or a detergent and, in which the soap or detergent may be placed before the machine is put into operation, and from which the soap or detergent will automatically be dispensed by the machine in its operation.

Other objects of the invention will be apparent hereinafter from the specification and from the recital of the appended claims.

In the drawing:

Fig. 1 is a plan view showing the conventional wire tray or basket of a conventional dish washing machine with my soap or detergent dispenser mounted thereon;

Fig. 2 is a section on the line 2-2 of Fig. 1 looking in the direction of the arrows;

Fig. 3 is a plan view on an enlarged scale of my dispenser;

Fig. 4 is a front elevation thereof;

Fig. 5 is a side elevation thereof.

Referring now to the drawing by numerals of reference, 10 denotes a conventional wire tray such as is used in a conventional dish washing

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machine for holding cups, glasses, and dishes that are to be washed. This tray includes a plurality of concentric wire rings 11.

The dispenser of this invention comprises a cup or pan 12 which may be made of sheet metal, plastic, or any other suitable material and which is open at its top. This pan has two arms 13 projecting from opposite sides of it that have downturned portions 14 at their free ends. The arms 13 are offset from a central axial plane of the cup parallel to the arms. The pan is adapted to be suspended from the glass-receiving tray 10 by the arms 13 which engage over the top of one of the rings 11 of the tray. The arms 13 are offset to one side of the central plane of the pan 12 so that the pan tends to tip to the opposite side. However, a weight 15, which is fastened to or integral with the pan on the same side of the central plane as the arms 13, serves to maintain the pan horizontal when it is filled with the liquid soap or detergent and suspended on the tray 10.

In use, the pan 12 with the soap or detergent therein, is placed in the washing machine on the tray 10. After the washing machine is loaded with dishes, and closed, and put into operation, the water gushing into the machine will splash into the pan 12; and the weight of the water will overcome the weight 15 and tip the cup 12, dumping the detergent into the swirling water. Thus, the soap or detergent will be mixed thoroughly with the water after the water starts to flow. The bearings of the machine will be protected; and soap or detergent will not be wasted.

While the dispensing pan or cup 12 is shown as provided with a balancing weight 15, it is obvious that other balancing means might be employed such as mercury or water in a tube, a counter-balancing spring, etc.

While the invention has been described, moreover, in connection with use on a dish washing machine, it will be obvious that a pan or cup 12, identical with or similar to that shown, can in similar manner be suspended in a clothes washing machine or any other machine in which the water is swirled about, and that in such a machine the water will be tossed into the pan or cup so as to overbalance the cup and cause the soap or detergent to be dumped into the water automatically after the machine is in operation. The pan or cup furthermore is portable and can be made to fit any make of machine.

While the invention has been described in connection with a particular embodiment thereof and a particular use therefor, then, it will be

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understood that it is capable of further modification and use, and this application is intended to cover any adaptations, uses, or modifications of the invention following, in general, the principles of the invention and including such departures from the present disclosure as come within known or customary practice in the art to which the invention pertains and as may be applied to the essential features hereinbefore set forth and as fall within the scope of the invention or the limits of the appended claims.

Having thus described my invention, what I claim is:

1. In a washing machine, in combination, a ringlike support provided with an opening, an open cup-shaped dispenser for dispensing soap or detergents having two aligned arms offset from a central plane of the dispenser, said arms supported by said ring and pivoting thereon, and locating said dispenser in said opening, and means for counterbalancing the dispenser being constructed to be overcome when water from the washing machine splashes into said dispenser.

2. In a washing machine, in combination, a

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wire dish rack having a ring forming an opening in said rack, an open cup-shaped dispenser for dispensing soap or detergents, having two aligned arms offset from a central plane of the dispenser and having downturned portions at their free ends, said arms supported by said ring and pivoting thereon and locating said dispenser in said opening, and means for counterbalancing the dispenser being constructed to be overcome when water from the washing machine splashes into said dispenser.

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