F. BAUER.

HAT DYEING APPARATUS.

APPLICATION FILED JAN. 3, 1908.

938,738.

Patented Nov. 2, 1909.

2 SHEETS—SHEET 1.

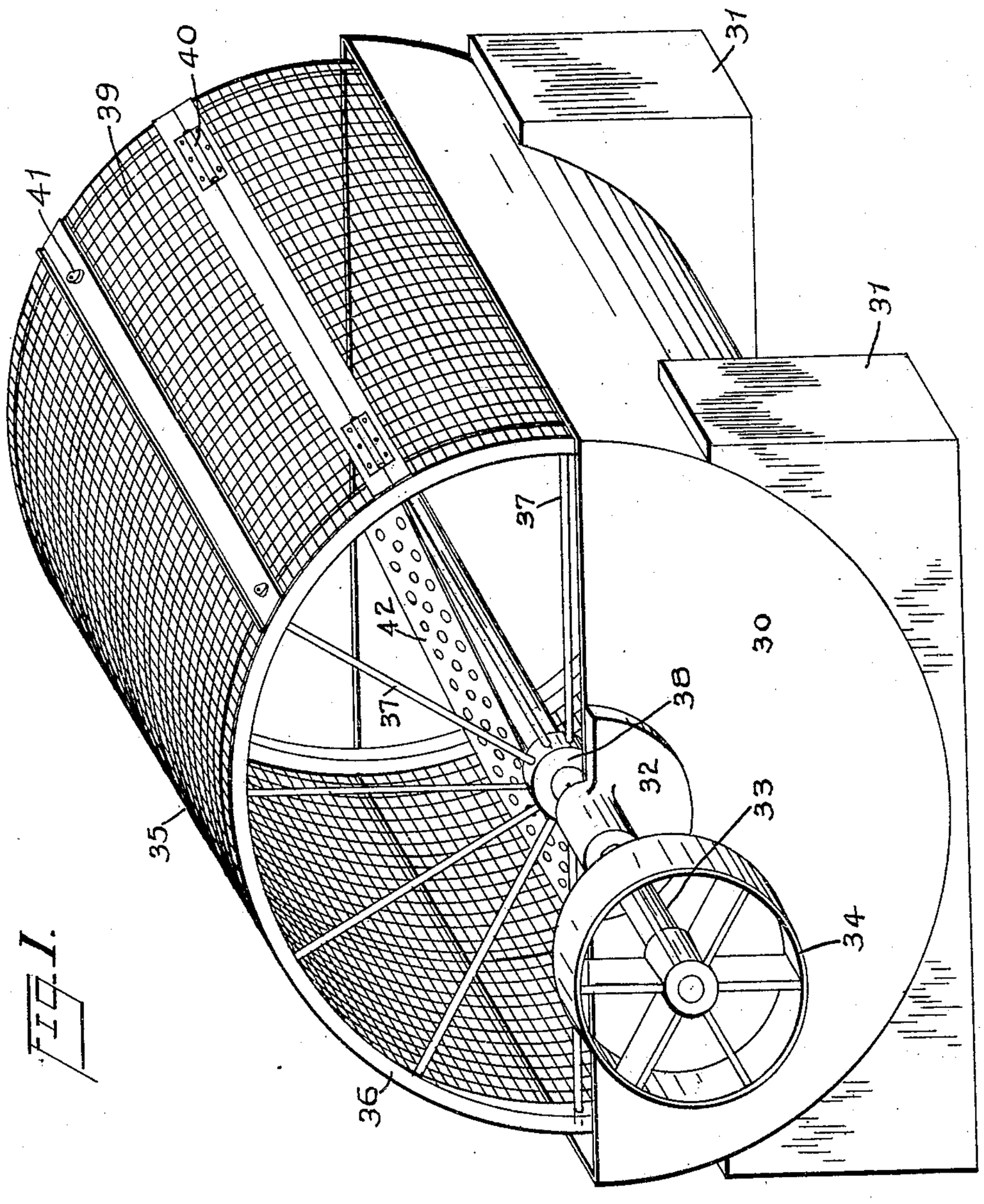

FIG. 1.

WITNESSES

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INVENTOR

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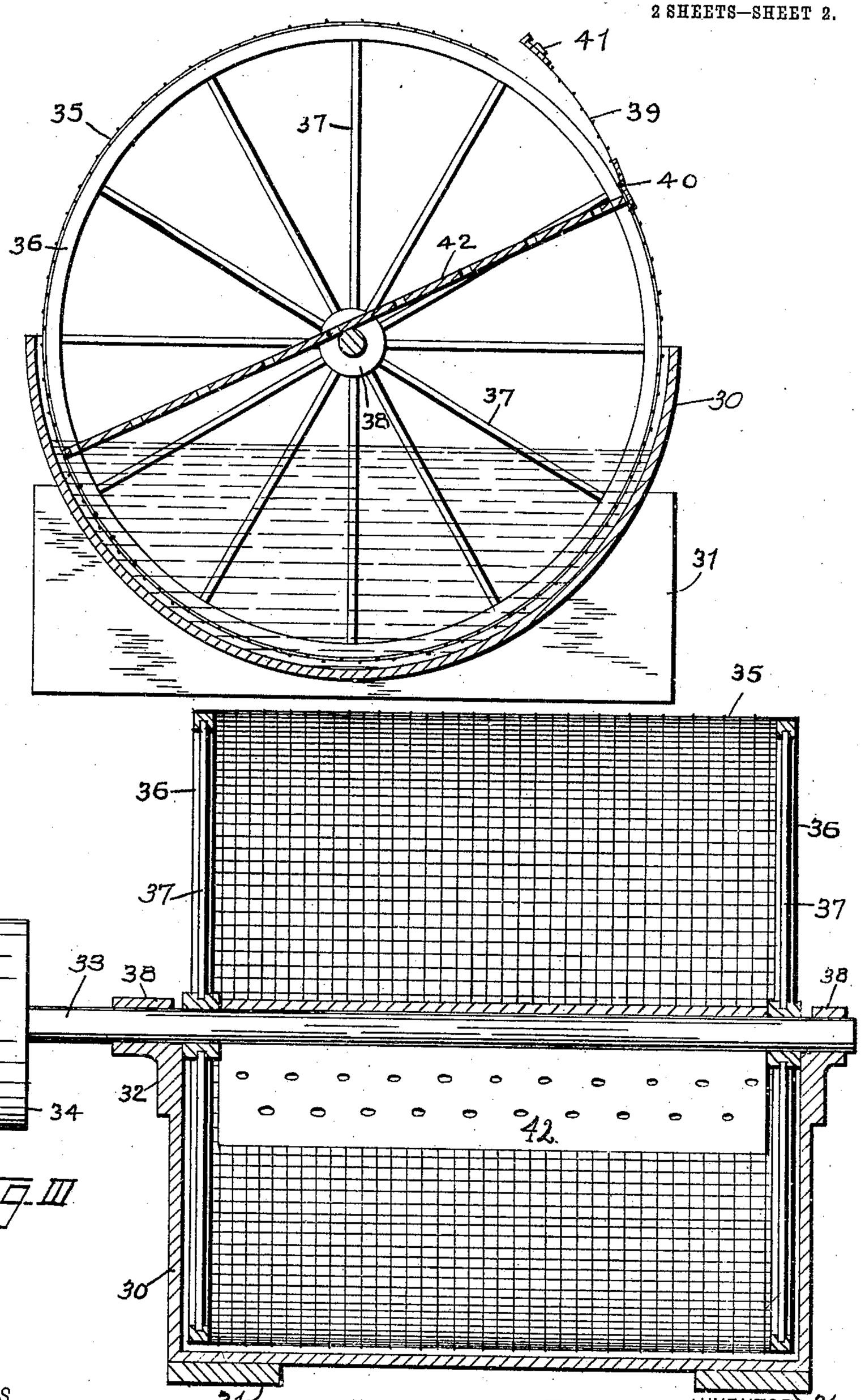

FIG. II.

FIG. III

WITNESSES

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FRIEDRICH BAUER, OF WEST ORANGE, NEW JERSEY.

HAT-DYEING APPARATUS.

938,738. Specification of Letters Patent. Patented Nov. 2, 1909.

Application filed January 3, 1908. Serial No. 409,126.

To all whom it may concern:

Be it known that I, FRIEDRICH BAUER, a citizen of the United States, residing at West Orange, in the county of Essex and State of New Jersey, have invented certain Improvements in Hat-Dyeing Apparatus, of which the following is a specification.

The objects of this invention are to facilitate the dyeing of hats in a bath or tank of liquid dye; to secure a more even and regular agitation of the contents of the tank than has been possible heretofore in stirring by hand; to thus secure a more perfect intermingling of the dye fluid with the hats, and consequently a more perfect and finished product; to facilitate the removal of the hats from the tank of dye; to save labor and expense, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings, in which like numerals of reference indicate the same parts in the several figures, Figure 1 is a perspective view of a hat dyeing apparatus of my improved construction; Fig. 2 is a cross section of the same, and Fig. 3 is a vertical longitudinal section taken through the main or turning shaft.

In said drawings, 30 indicates a horizontally disposed semicylindric tank adapted to contain liquid dye held in position by supports 31, and providing at its opposite end wall bearings 32 for a horizontal main shaft 33 which at one end of the tank outside said bearings receives a belt pulley 34. Upon said shaft 33 and within the tank 30, is mounted a cylinder 35 of wire screening, said screening being held by end rings 36 from which spokes 37 extend to hubs 38 on the shaft.

It will be understood that the tank 30 is stationary and the shaft 33 adapted to be rotated by means of the belt pulley 34. The cylinder 35 being fast upon the said shaft 33, is thus turned or rotated in the tank and said cylinder is adapted to contain the hat bodies to be dyed. At one side of the said cylinder 35 a longitudinal portion of the walls thereof is arranged as a door 39 to open and shut upon hinges 40 and to be secured in closed position by means of catches 41. When this door 39 is open, a perforated drip board 42 is adapted to be inserted into the cylinder and lie diametrically of the same, extending from end to end, and resting upon the central horizontal driving shaft 33. The hats when drained upon this drip board, can be removed through the said door 39.

The said drip board is adapted to be inserted as shown in the drawings after the hat bodies have been sufficiently agitated in the dyeing liquid by means of rotating the cylinder 35. As the cylinder comes to a rest with the door 39 just emerging from the tank at the left hand side thereof as viewed in Fig. 5, the door is opened and the drip board slid into place beneath the shaft 33 fitting between the hubs 38—38 at two of its opposite edges and having its other two opposite edges frictionally engaging the opposite sides of the cylinder 35. In some cases, the door 39 can then be shut and a half rotation of the cylinder by hand will bring the hat bodies up on the drip board 42, so that when the door 39 is again opened the drip board can be pulled out with the hats upon it. Generally, however, the door 39 is left open and the operator turns the cylinder by reaching in over the edge of said door with his fingers upon the drip board, so that the cylinder and drip board are rotated together until in proper position when the drip board is slid out by the operator simply shifting his grasp upon it slightly.

Having thus described the invention, what I claim as new is:

1. A hat dyeing apparatus comprising in combination a semi-cylindric tank having walls impervious to liquid, bearings upon the edges of the end walls of said tank, a shaft held by said bearings in the central axial line of the tank, means for driving said shaft, hubs fixed on said shaft, spokes radiating from said hubs, rings at the ends of said spokes, a cylinder of wire screening fixed at its ends to said rings with its surface contiguous to the bottom of said tank, the inner chamber of said cylinder being open and unobstructed, a longitudinal door at one side of said cylinder, and a perforated drip board adapted to be inserted through said door lying upon said shaft between said spokes and extending from side to side of the cylinder.

2. In a hat dyeing apparatus, the combination of a semi-cylindric tank having walls impervious to liquid, bearings upon the edges of the end walls of said tank, a shaft held by said bearings in the central axial line of tank, means for driving said shaft, a cylinder of wire screening around said shaft

with its surface contiguous to the bottom of the tank, spokes fixing the ends of said cylinder to said shaft and leaving the inner chamber of the cylinder open and unobstructed, a longitudinal door at one side of said cylinder, and a removable drip board adapted to be slid into and out of said cylinder through said door and divide its interior into two separate compartments.

3. In a hat dyeing apparatus, the combination of a semi-cylindrical tank having walls impervious to liquid, bearings upon the edges of the end walls of said tank, a shaft held by said bearings in central axial line of the tank, means for driving said shaft, a cylinder fixed to said shaft and having curved walls of wire screening adapted to pass contiguous to the bottom of the tank when the shaft is rotated, and a perforated drip board removably mounted within said cylinder in an approximately central longitudinal plane of the cylinder.

FRIEDRICH BAUER.

In the presence of—
FREDERICK GERMANN, JR.,
ETHEL B. REED.