

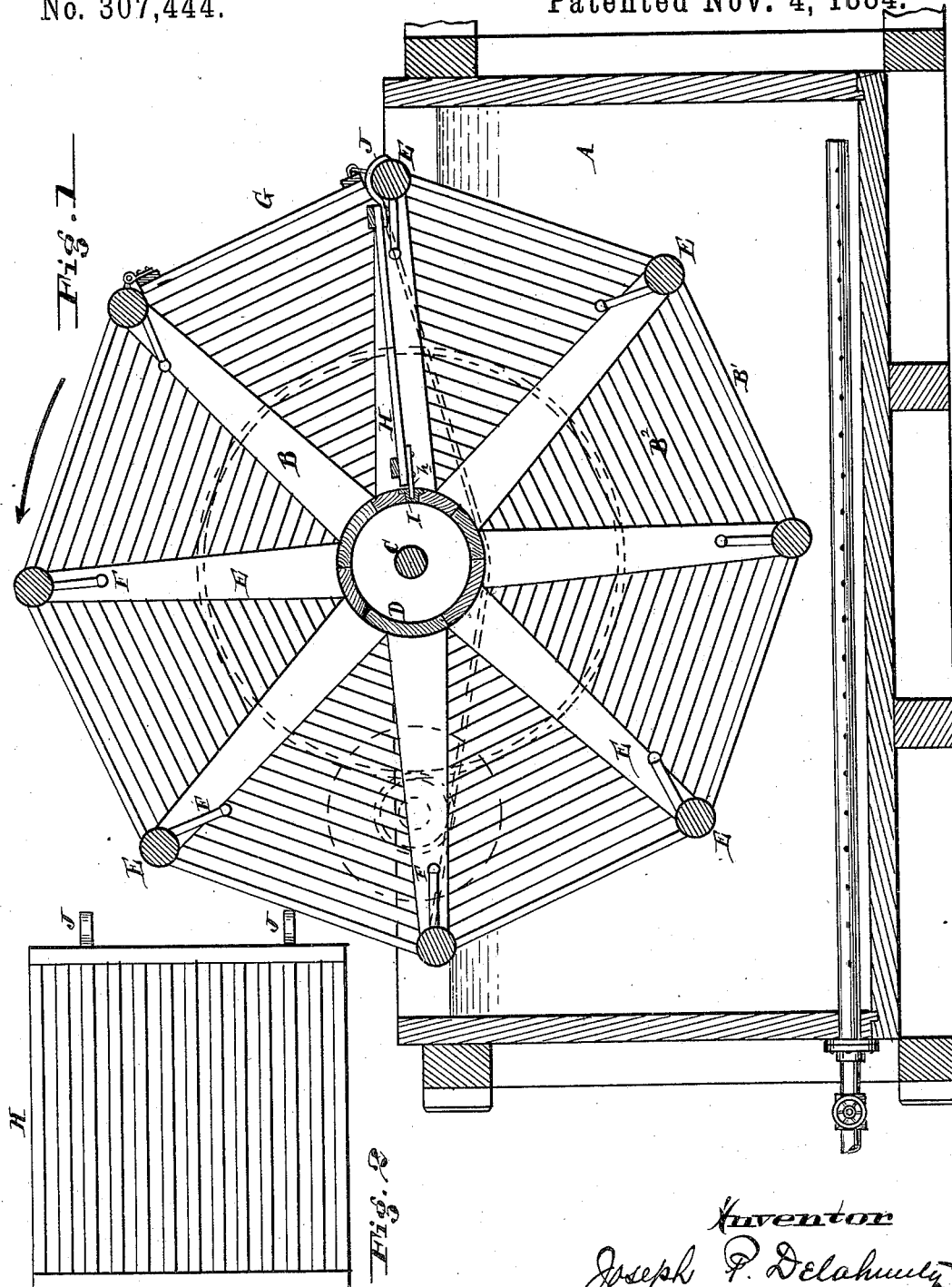
(No Model.)

J. P. DELAHUNTY.

DYE VAT.

No. 307,444.

Patented Nov. 4, 1884.



Attest
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UNITED STATES PATENT OFFICE.

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DYE-VAT.

SPECIFICATION forming part of Letters Patent No. 307,444, dated November 4, 1884.

Application filed June 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. DELAHUNTY, of the city of Pittston, in the county of Luzerne and State of Pennsylvania, have invented new and useful Improvements in Dyeing-Machines, of which the following is a specification.

My invention has reference to dyeing-machines; and it consists in a large reel or cylinder made of open or slatted work, and preferably having pins projecting inward from its inner face, in combination with a removable screen board or net adapted to be inserted in said reel or cylinder, dividing it across from its center outward, for the purpose of bringing to the surface the dyed garments when the same shall be in a condition for removal, and in details of construction, all of which is fully set forth in the following specification and shown in the accompanying drawings, which form part thereof.

Heretofore in machines of this class (the construction of which is fully set forth in a pending application of mine) it has been found difficult to remove the dyed garments from the reel, and workmen were apt to overlook some of them which were not readily brought to the surface, they having to be raked out of the dye-fluid through the door in the reel. If a garment remains in the reel and undergoes a second dyeing operation, it cannot be sold at the regular price, but must be sold at a great discount. The present method of withdrawing the garments from the reel is so slow that the operator must stand for a long period of time inhaling the hot gases and vapors arising from the vat, and it is therefore an extremely exhausting and unpleasant operation.

The object of my invention is to overcome the above objections by providing the reel with suitable means for collecting all the garments and bringing them all to the surface at the same time on a tray in line with the door, whereby the garments may be readily withdrawn, saving much time, annoyance, and hard labor, and insuring the removal of every piece of goods in the reel.

In the drawings, Figure 1 is a sectional elevation of a dyeing-machine embodying my improvements, and Fig. 2 is a plan view of the collecting-screen.

A is the vat or tank in which the dyeing-liquid is placed.

B is the reel or cylinder, which is made with a slatted or perforated face, B', and sides B², and is secured to a shaft, C, which may be rotated slowly by any suitable devices, as gearing.

D is a large cylinder encircling the shaft C, and is adapted to prevent the garments becoming wrapped upon the said shaft C.

F are pins secured to the frame E in the circumference of the reel and pointing centerward. In practice these pins are arranged alternately radial and oblique, so that as they pass around the garments caught thereon shall fall into the liquid at different places, preventing their tangling. So far this invention is similar to that set forth in my other application hereinbefore referred to.

The cylinder D, opposite the door G, is provided with seats or sockets I for the pins *h* on the collecting-screen H, which is interposed between the face of the reel and the said cylinder, being secured in position by the curved metallic parts J, which rest upon the frame E, as shown, and held down by the door G when closed. Other means may be used, if desired. This screen-frame H may extend entirely across the reel, as indicated by dotted lines, or two screens, as shown at H, may be arranged in line, both terminating in the cylinder D, and this screen may be made of wood or metal, of slats, perforated metal, or wire-work.

The operation is as follows: After the garments are fully dyed, the reel is stopped with the door G up. This is then opened, the screen H inserted, and then closed. Now, as the reel is rotated slowly, the garments are brought to the surface by the pins F, and as fast as they appear the operator pushes them off, so that they shall all remain on one side of the machine. Finally, the screen sweeps around and lifts all of the garments to the surface, and it is arrested when it reaches the position shown. The door G is then opened and the garments drawn out, they having been allowed to drip first, so as to carry no excess of the dyeing-fluid with them. The tray H is then removed and the machine is in condition for another lot of goods to be dyed.

I do not limit myself to the details of con-

struction, as they may be modified in various ways without departing from my invention.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A dyeing-machine consisting of a large reel or cylinder made of open-work, and provided with a removable screen extending partly or wholly across the reel, and adapted for use when it is desired to collect the dyed garments, substantially as and for the purpose specified.

2. A dyeing-machine consisting of a large reel or cylinder made of open-work, and provided with a removable screen extending partly or wholly across the reel, and adapted for use when it is desired to collect the dyed garments, and a door arranged in said reel, substantially in line with said screen, substantially as and for the purpose specified.

3. A dyeing-machine consisting of a large reel or cylinder made of open-work, having a large central cylinder, and a screen made removable and adapted to fill the space between the said central cylinder and face and sides of the reel, substantially as and for the purpose specified.

4. A dyeing-machine consisting of a large reel or cylinder made of open-work, provided with pins projecting centerward from the periphery of the said reel, and having a large central cylinder, and a screen made removable and adapted to fill the space between the said central cylinder and face and sides of the

reel, substantially as and for the purpose specified.

5. A dyeing-machine consisting of a large reel or cylinder made of open-work, provided with radial and oblique pins projecting centerward from the periphery of the said reel, and having a large central cylinder, and a screen made removable and adapted to fill the space between the said central cylinder and face and sides of the reel, substantially as and for the purpose specified.

6. A dyeing-machine consisting of a large reel or cylinder made of open-work, having pins projecting centerward from the periphery of said reel and within the same, and provided with a removable screen extending partly or wholly across the reel, and adapted for use when it is desired to collect the dyed garments, substantially as and for the purpose specified.

7. The combination of reel B, having cylinder D, and removable screen H, substantially as and for the purpose specified.

8. The combination of reel B, having cylinder D, provided with seats I, door G, and removable screen H, having pins *h* and pieces J, substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

JOSEPH P. DELAHUNTY.

Witnesses:

JOHN RICHARDS,
WM. J. HUGHES.