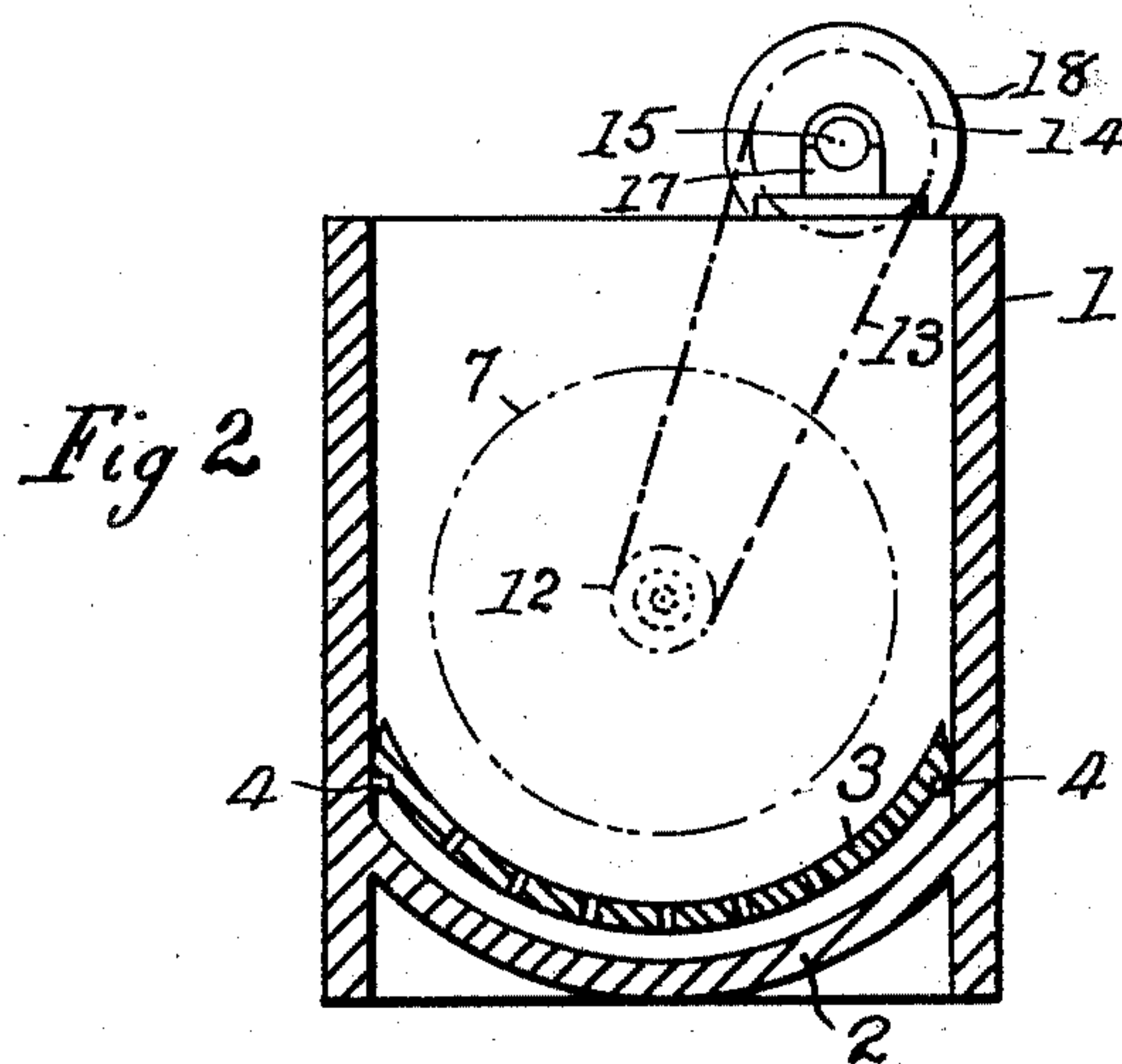
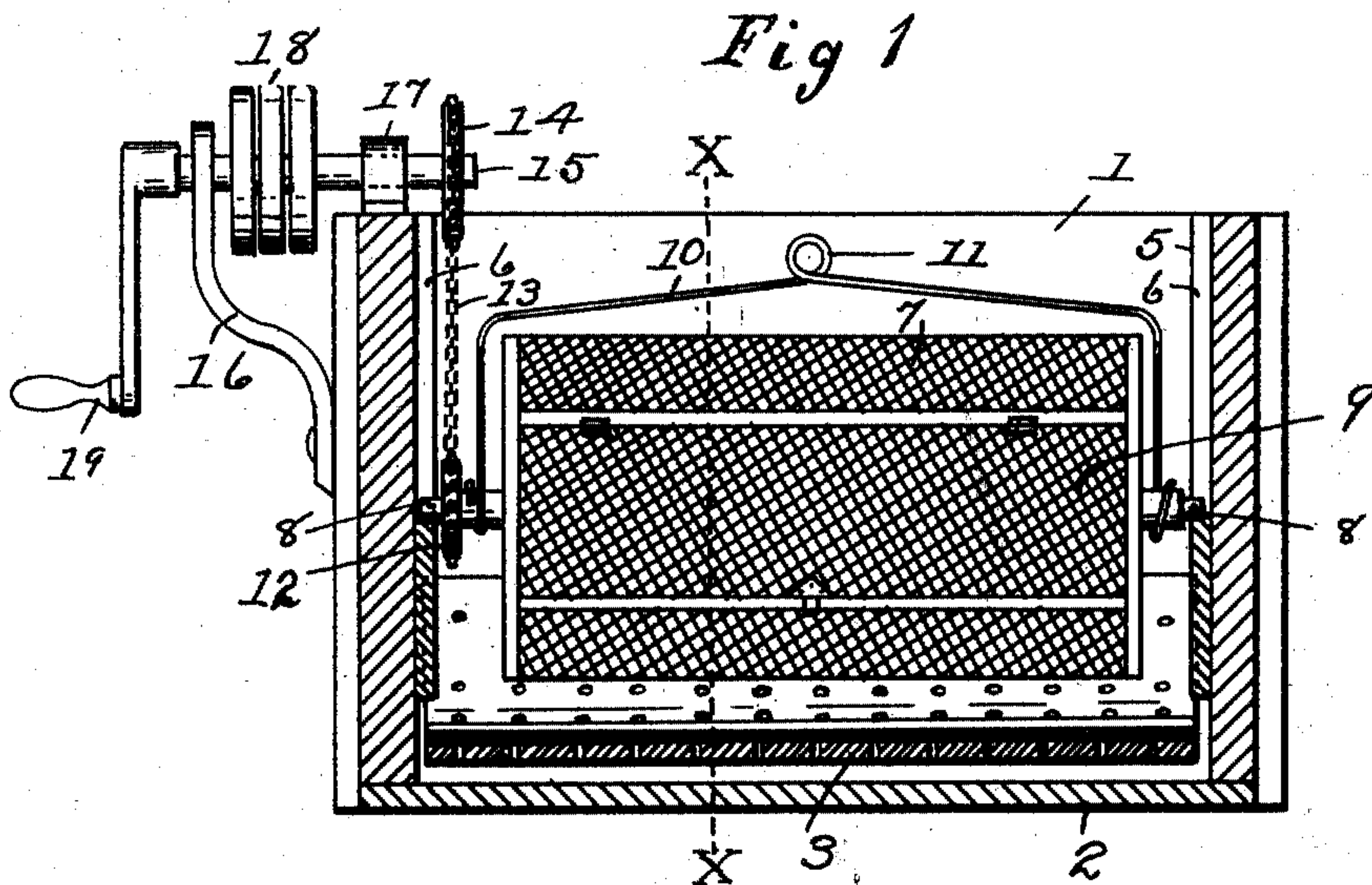


No. 760,118.

PATENTED MAY 17, 1904.

C. W. HERBINE & H. RECH.  
MACHINE FOR DYEING.  
APPLICATION FILED MAR. 3, 1904.

NO MODEL.



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Witnesses  
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# UNITED STATES PATENT OFFICE.

CHARLES W. HERBINE AND HENRY RECH, OF READING, PENNSYLVANIA.

## MACHINE FOR DYEING.

SPECIFICATION forming part of Letters Patent No. 760,118, dated May 17, 1904.

Application filed March 3, 1904. Serial No. 196,277. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES W. HERBINE, a citizen of the United States, and HENRY RECH, a subject of the Emperor of Germany, both residing at Reading, in the county of Berks and State of Pennsylvania, have invented new and useful Improvements in Machines for Dyeing Hosiery and Yarn, of which the following is a specification.

10 This invention relates to improvements in dyeing-machines; and the object is to provide a machine adapted particularly for dyeing hosiery and yarn in which the product is constantly revolved in an immersion of the dye  
15 fluid and from which it may be easily removed in bulk.

The invention consists of a removable revolving perforated cylinder suitably mounted in a tank and means for transmitting rotary  
20 motion to said cylinder.

The invention is more fully described in the following specification and clearly illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of  
25 our machine. Fig. 2 is a vertical cross-section on line X X of Fig. 1.

The numeral 1 indicates the tank or vessel adapted to contain the dye fluid. This tank has a curved bottom 2, and a short distance  
30 above said bottom we arrange a removable or false bottom 3. This bottom 3 is perforated and rests on lugs 4 on the inside of the tank.

The numeral 5 indicates vertical guide-strips arranged on the inside of either end of the  
35 tank. These strips have vertical slots 6 extending from the top to a point about midway of their length.

The numeral 7 indicates a cylinder formed with a central shaft or stud 8 at either end adapted to rest in the base of said slots 6.  
40 This cylinder is perforated, or it may, if preferred, be formed of wire screen on a suitable frame and is formed with a door or opening 9.

45 The numeral 10 indicates a handle or lifter for the cylinder. This lifter is secured at

either end to the stud 8 and has a hook or ring 11 formed at its center, by means of which it may be engaged by a crane or other suitable lifting device and the entire cylinder lifted  
50 from its resting place in the tank.

On the one end of the cylinder a sprocket-wheel 12 is formed on the stud 8, and a chain 13 connects this wheel with a larger sprocket-wheel 14, which wheel is mounted on a shaft  
55 15. This shaft 15 is mounted on the end of the tank by means of a suitable support 16 and rests in a bearing 17 and is provided with pulleys 18, by means of which power may be transmitted to said shaft and through it to the  
60 cylinder 7. A hand-crank 19 is also secured to the shaft 15, so that the device may be operated by hand, if desired.

The hosiery is placed in the cylinder 7 and the dye liquid in the tank 1 to a suitable depth.  
65 The revolving cylinder will keep the hosiery contained therein immersed in the dye liquid at all times, and the circulation of this liquid through the mass will be comparatively uniform, thus insuring evenly-dyed work.  
70

The perforated false bottom 3 will permit any sediment or foreign substance to find its way to the space beneath it, and this bottom 3 can be removed when it is desired to clean  
75 the machine.

The curved bottom will reduce the quantity of liquid required, and consequently cause a saving.

One or more cylinders may be employed, as when one is removed and deposited in the  
80 wash-tank another may take its place, and there will be no loss of time.

In the case of dyeing yarn a reel may replace the perforated cylinder, and the action otherwise will be the same.  
85

Having thus fully described our invention, what we claim, and desire to secure by Letters Patent, is—

A dyeing-machine for dyeing hosiery or yarn, comprising a tank having a curved bot-  
90 tom, a perforated false bottom, lugs on which said false bottom rests, vertical guideways in

either end of said tank, a removable perforated cylinder, revolubly mounted in said guide-bearings, a handle or lifter secured to said cylinder, and means for transmitting rotary motion to said cylinder, all substantially  
5 as and for the purpose described.

In testimony whereof we have signed our

names to this specification in the presence of two subscribing witnesses.

CHAS. W. HERBINE.

HENRY RECH.

Witnesses:

HOWARD KOCH,

ED. A. KELLY.