

No. 653,390.

Patented July 10, 1900.

J. MARSHALL.  
HAT SIZING APPARATUS.

(Application filed Oct. 10, 1899.)

(No Model.)

Fig. 1.

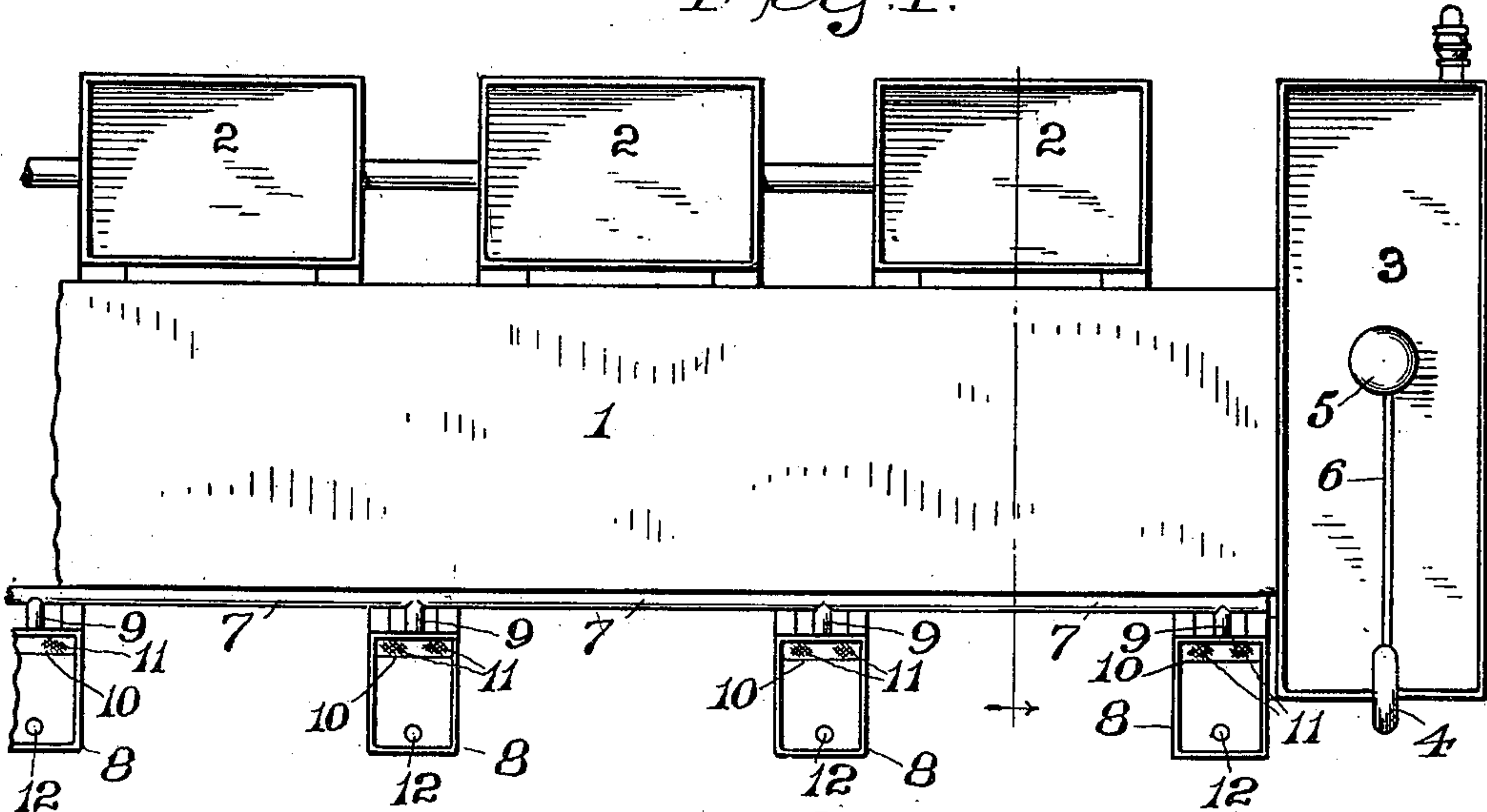


Fig. 2.

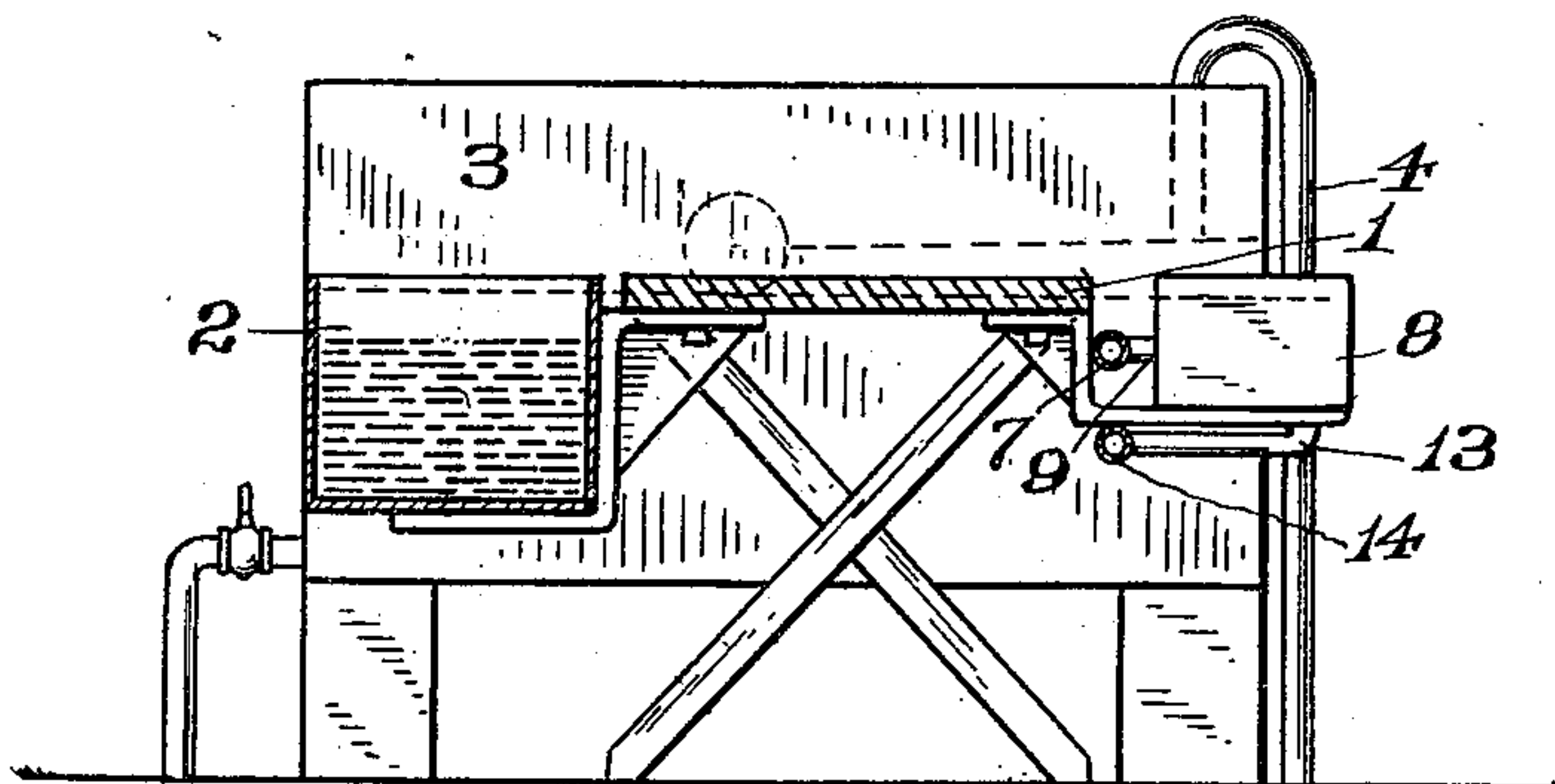
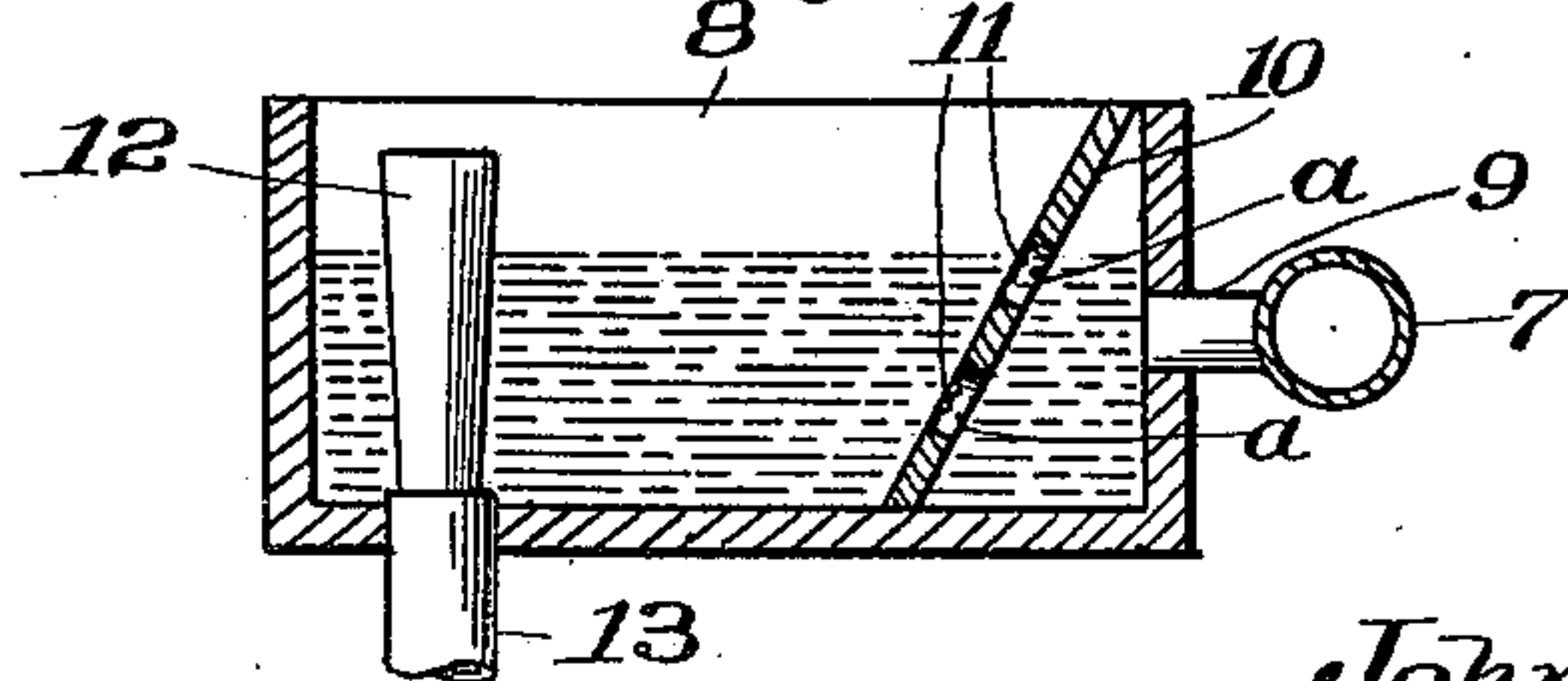


Fig. 3.



WITNESSES:

H. A. Samuels  
M. T. Longden

INVENTOR

John Marshall

ATTORNEY

# UNITED STATES PATENT OFFICE.

JOHN MARSHALL, OF FALL RIVER, MASSACHUSETTS, ASSIGNOR TO JAMES MARSHALL & BROTHERS, OF SAME PLACE.

## HAT-SIZING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 653,390, dated July 10, 1900.

Application filed October 10, 1899. Serial No. 733,161. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN MARSHALL, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Hat-Sizing Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has reference to certain new and useful improvements in hat-sizing apparatus, but more particularly refers to the provision of certain means whereby great relief is experienced by the operator, while at the same time cold water is always available in the treatment of the hats for obvious purposes during the operation of sizing.

In the accompanying drawings, which form a part of this application, Figure 1 illustrates a plan, partly broken, showing a portion of a sizing-tank equipped with my improvement; Fig. 2, a section at the line *x x* of Fig. 1, and Fig. 3 a detail sectional elevation of one of the water-boxes.

Similar numbers and letters of reference denote like parts in the several figures of the drawings.

In the description of the present invention it is not deemed necessary to illustrate fully a gang of sizing-machines, and I have therefore shown merely the sizing-tanks above which the usual rollers operate, and I have only shown the table on one side of the tank.

The operation of sizing hats is extremely arduous and is very trying upon the hands of the operators, since the water in the sizing-tanks is quite hot and it is necessary for the operator to dip the hat-roll in the tank quite frequently. After a bundle of hats has been removed from the sizing-rolls the hats are spread out flat, and it is an exceedingly good thing to dress them over slightly with cold water, not in any quantity, but to the extent obtained by merely dipping the hands in cold water and passing them lightly over the hats. Small buckets of cold water placed near the operators are not very serviceable, since the water speedily becomes filled with particles of fur from the hands of the opera-

tors and is thereby rendered foul, and, moreover, the operation of emptying and filling the buckets consumes too much time. My improvement furnishes a constant supply of pure cold water, which is supplied and maintained at a fixed level by automatically controlled and operated instrumentalities, all of which will be clear from the following description.

1 is the usual table, which extends in front of the hot-water sizing-tanks 2, upon which table the hats are manipulated by the operators in the usual manner.

3 is the reservoir-tank, suitably supported at the end of the table, and 4 is a pipe through which water under pressure is supplied within this reservoir.

5 is an ordinary float on the end of a rod 6, which latter is connected with a valve (not shown) in the pipe 4 in the usual manner, so that the valve will be closed and the supply of water shut off when the water has risen to a certain level in the reservoir.

7 is a service-pipe extending from the bottom of the reservoir parallel with the table 1 and below the same.

8 indicates water-boxes suitably supported in position so as to be on opposite sides of the workman who faces one of the tanks 2, and 9 indicates short pipes which lead from the service-pipe 7 into these boxes. I provide inclined partitions 10 within these boxes, which partitions are pierced by openings *a*, the latter being protected by strainers 11. The pipes 9 lead directly into the partitioned portion of the boxes, so that it will be clear that there will be no splashing or sputtering of the water, since the inclined partitions will break the force of the latter, while at the same time the strainers will prevent the particles of hair and podgem from flowing back into the service-pipe.

12 indicates plugs within waste-pipes 13 in the bottom of these boxes, whereby the water in the boxes may be drawn off at any time, these waste-pipes 13 (only one shown) all communicating with one discharge-pipe 14, which latter leads to any suitable sewer or the like.

The object of the strainers 11 is to prevent the particles of fur in the open part of the

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boxes 8 from accumulating within the partitioned part, and it will therefore be clear that when the water is drawn off from these boxes all particles of fur or foreign matter  
 5 will be carried therealong and a fresh supply of water will automatically flow within the boxes. Also it will be clear that the contents of these boxes may be drawn off independently.  
 10 The operator dips his hands into the cold water at either side, thereby enabling him to better bear the task of handling the hot hat-rolls, and so soon as he perceives that the water in a box has become foul with particles  
 15 of fur he removes the plug and after the contents have been drawn off replaces such plug, so that a fresh supply of clear cold water is obtained.

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

1. In a hat-sizing apparatus having the usual sizing tanks and table, the combination of a water-reservoir, a water-supply pipe  
 25 leading therein and provided with a valve, a float attached to said valve whereby a normal level of water is maintained in said reservoir, a service-pipe leading from said reservoir throughout the length of the sizing-table,  
 30 small water-boxes suitably supported at proper locations throughout the length of said table and provided at their bottoms with outlets, and connections between said service-pipe and boxes whereby a normal level of  
 35 water in said boxes is maintained from said reservoir, substantially as set forth.

2. In a hat-sizing apparatus comprising the

usual sizing tanks and table, a series of small water-boxes suitably supported below the level of said table at predetermined locations  
 40 throughout the length of such table, a waste-pipe, connections between the bottoms of said boxes and said pipe, a reservoir-tank, a pipe for supplying the water within said tank, means for automatically maintaining a cer-  
 45 tain level of the water in said tank, a service-pipe extending from said tank throughout the length of said table and in proximity to said water-boxes, and connections between said service-pipe and boxes, substantially as  
 50 set forth.

3. In a hat-sizing apparatus having the usual sizing tanks and table, the combination of the reservoir-tank, means for automatic-  
 55 ally maintaining a certain level of water in said tank, the service-pipe extending from said tank below the level of said table and parallel therewith, the water-boxes suitably supported at certain intervals throughout  
 60 the length of said table and having at their inner ends inclined perforated partitions, strainers over said perforations, connections between said service-pipe and the inner partitioned ends of said boxes, said boxes hav-  
 65 ing outlets, a waste-pipe, and connections between said outlets and pipe, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN MARSHALL.

Witnesses:

SOPHIA RUSSELL,  
 J. ARTHUR BARTLE.