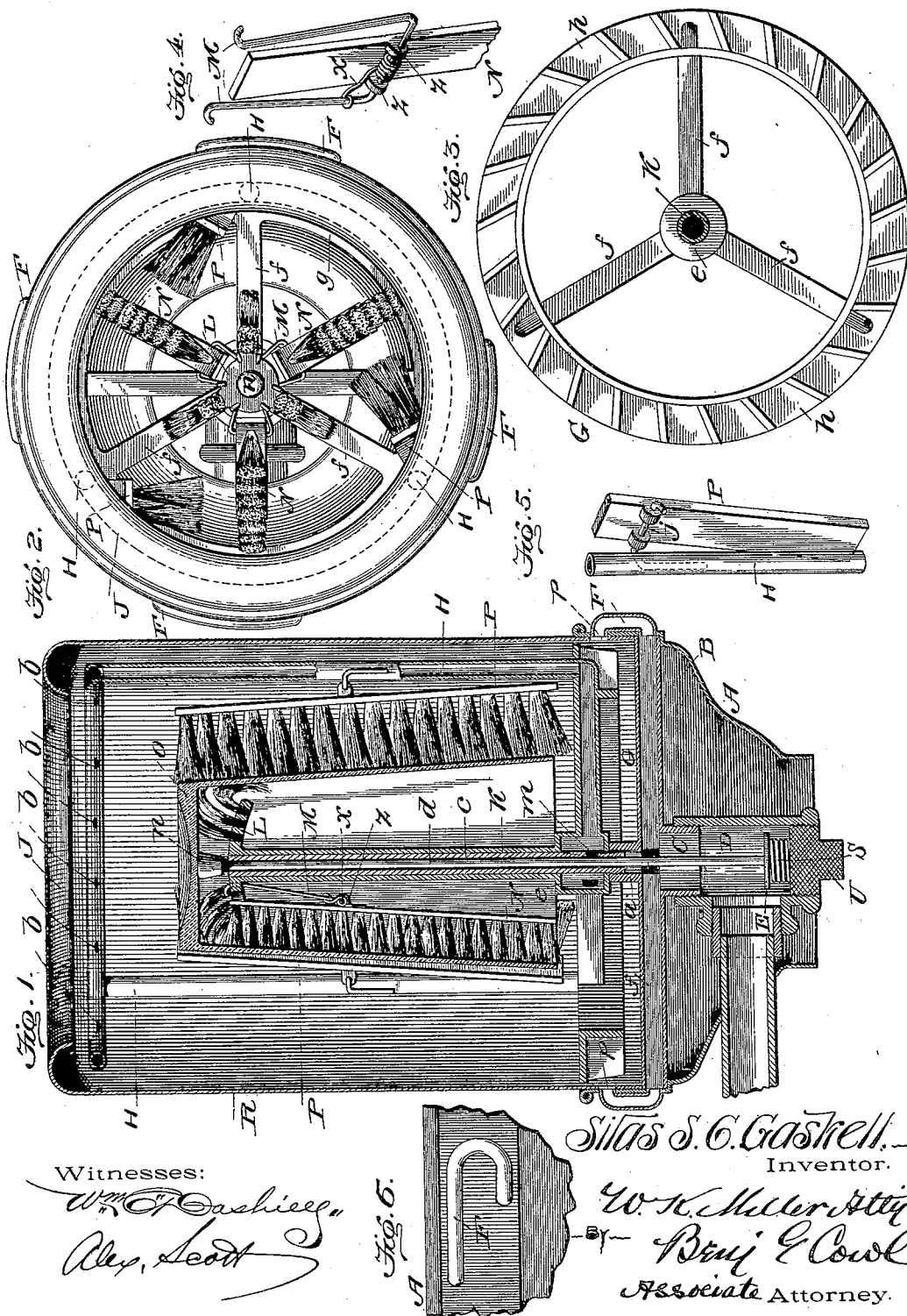


(No Model.)

S. S. C. GASKELL.
TUMBLER WASHER.

No. 529,527.

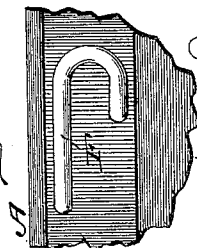
Patented Nov. 20, 1894.



Witnesses:

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Fig. 6.



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UNITED STATES PATENT OFFICE.

SILAS S. C. GASKELL, OF CANTON, OHIO, ASSIGNOR TO F. M. WHITEMAN, OF
SAME PLACE.

TUMBLER-WASHER.

SPECIFICATION forming part of Letters Patent No. 529,527, dated November 20, 1894.

Application filed May 14, 1894. Serial No. 511,070. (No model.)

To all whom it may concern:

Be it known that I, SILAS S. C. GASKELL, a citizen of the United States, and a resident of Canton, county of Stark, State of Ohio, have invented a new and useful Improvement in Tumbler-Washers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification.

My invention relates to improvements in tumbler washers, the object of which is to provide a washer with revolving washing brushes to revolve inside of the tumbler, and about the outside at the same time.

With this object in view, my invention relates to certain features of construction and combination of parts as will be hereinafter described and claimed.

Figure 1 of the accompanying drawings is a vertical section. Fig. 2, is a view of the upper end portion showing annular pipe and upper end of brushes. Fig. 3, is a plan view of the under side of motor wheel. Fig. 4, is a perspective of a fragment of the vertical pipe and brush back showing the manner of supporting the brush. Fig. 5, is a fragment of inside brush showing the supporting arms, and paralleling spring. Fig. 6, is a fragmentary view of the base showing more clearly one of the return pipes.

A represents the base or bottom portion of the frame, having at the upper portion thereof, tubular cross bars B, diverging from a central apertured hub C, to which the supply pipe D is secured, said hub also serving as a seat for the valve E. The tubular bars B terminate at the lower end of a return pipe F, through which water passes to the motor, or wheel chamber. Central to this spider-like structure, formed of the tubular bars B, is provided a vertical hub *a* which serves as a support for the central vertical pipe *c*, through which is passed the valve stem *d*.

The water wheel or motor G is provided with a central hub *e*, from which tubular radial arms *f* extend to the rim *g*, which is provided with a series of buckets *h*. From the upper side of the arms *f*, pipes as H are projected upwardly, the aperture of which is in register with an aperture in the arms. The

upper end portion of these pipes H connect with the annular tube J. To the upper side of the hub *e* is secured a vertical tube K, at the upper end portion of which is secured a brush head L, to which is rigidly secured the brush supporting arms M.

To parallel the brushes N, with the inside of the tumbler O, a coil spring *x* is provided and secured with one end to the arm M, as shown in Figs. 1 and 4, the other ends resting on the back of the brush N, which is provided with perforated lugs *z*, through which the arm M is passed before bending.

The brushes P that wash the outside of the tumbler are supported on the vertical pipes H, as shown in Fig. 5. A pin *j* is secured to and projected from the pipe, which is passed through the apertured lugs *k*, provided on the back of brush P. By this arrangement the brush is allowed to swing a distance to conform to the outer side of the tumbler.

The annular tube J is provided with a series of perforations *b* as shown in Fig. 1, through which water is discharged onto the outside of the tumbler.

The brush supporting frame just described, comprising the wheel G, the pipes H and J, and tube K, is now placed on the base A. The tube K is passed down over the central tube *c*, the hub *e* of the wheel G, resting on the hub *a*. At the lower portion of the central tube *c*, is provided a side perforation *m* that registers with the tube in the arms *f* of the motor wheel G. On the top of the valve stem *d* is placed a rubber cap *n* on which rests the tumbler.

The inclosing case R, is placed over the brush frame, and in the base A as shown in Fig. 1, at the bottom portion of the case, is provided perforations as *p* that correspond with the open end of inlet pipe F.

To secure the closing of the valve E, a coil spring S is provided as shown in Fig. 1, the lower end resting on the plug U. For the purpose of this application I have shown four armed wheel, and four inside and four outside brushes, but a less number may be used if preferred.

In operation the tumbler is placed in the washer, the sides passing between the outside

and the inside washing brushes, the bottom resting on the rubber tip *n*, and is pressed down to open the valve E. Water will then pass from the supply pipe through the arms 5 B and pipe F to the wheel G, to revolve the wheel and brushes, both sets of brushes revolving, the tumbler remaining stationary; a supply of water to wash the inside of the tumbler, passing up the tube *c*, and out 10 against the bottom and sides, and to wash the outside, the water will pass through the aperture *m* in the pipe *c*, into and through arms *f*, of the wheel G, to and up the pipes H, to the annular tube J, and out through 15 the perforations onto the brushes P and the tumbler. When the tumbler has been washed, the finger of the operator is removed, the spring S will raise and close the valve E, to shut off the supply of water, when 20 the tumbler can be taken out. The waste water is discharged down through the base.

Having thus fully described the nature and object of my invention, what I claim is--

1. In combination, a base consisting of a 25 hub, and hollow arms radiating therefrom, a rim having return pipes in communication with said hollow arms and terminating above the same, a frame mounted upon the base, said frame comprising a hollow hub, hollow 30 arms radiating therefrom and communicating therewith, a water wheel carried by said arms, tubes extending upward from the wheel and communicating with the last named hollow arms, a circular perforated tube to which 35 the vertical tubes are attached, a central vertical tube for supplying water to the inside of the tumbler, a tube surrounding the central tube, brushes carried by the surrounding tube and the tubes connected with the wheel and

a valve for controlling the water supply, substantially as herein described. 40

2. The combination in a tumbler washer of the motor wheel G, having tubular arms *f* of a tubular frame, erected on the wheel, the tubes of the frame to register with the 45 tubes in the arms of the wheel, brushes pivotally secured to the tubular frame, a central tube *c* adapted to conduct water from the place of supply to the inside of the tumbler, and to the tubular arms of the motor 50 wheel, thence through the vertical tubes H, to the annular tube J, from which it is discharged upon the outside of the tumbler, tube K as a support for the brush L, and brushes N, tubes B and F adapted to con- 55 duct water from the place of supply to the motor wheel, whereby the wheel and brushes, inside and outside of the tumbler are rotated to scrub or wash simultaneously the two sides of the tumbler, the inclosing case and a valve 60 to regulate the supply of water, substantially as described.

3. In a tumbler washer, a rotary circular frame, vertical tubes rising from its periphery, brushes pivoted thereto, the upper ends of 65 which swing inward, a vertical tube rising from the hub of the frame, carrying inner opposing pivotally attached brushes having their lower ends held outward by springs, and means for rotating said circular frame, 70 substantially as set forth.

In testimony whereof I have hereunto set my hand this 2d day of May, A. D. 1894.

SILAS S. C. GASKELL.

Witnesses:

W. K. MILLER,
BURT A. MILLER.