

A. HAWVER.  
LEATHER SCRUBBING-CYLINDERS.

No. 194,905.

Patented Sept. 4, 1877.

Fig. 1.

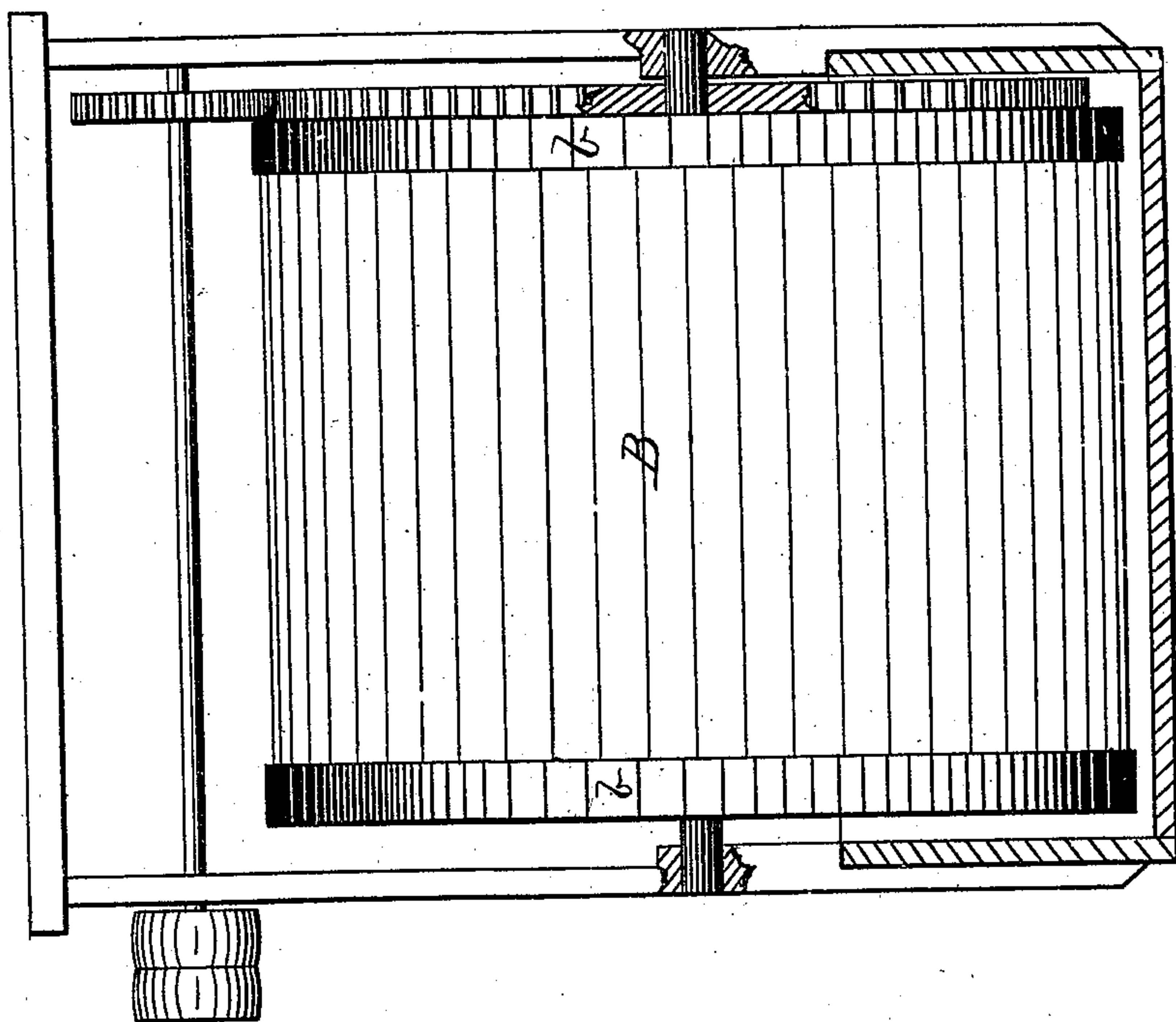
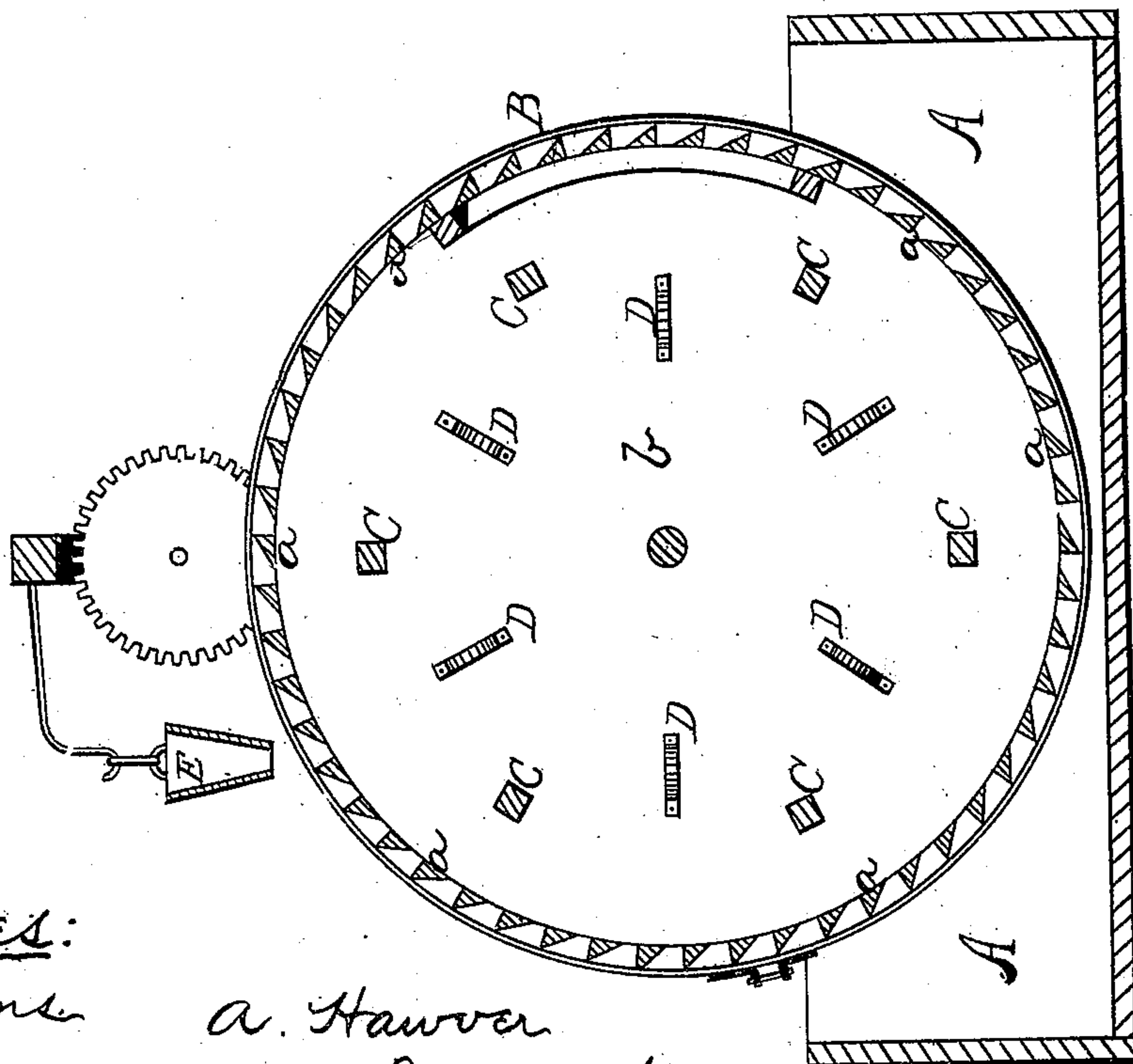


Fig. 3.



Fig. 2.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN LEATHER-SCRUBBING CYLINDERS.

Specification forming part of Letters Patent No. 194,905, dated September 4, 1877; application filed June 14, 1877.

*To all whom it may concern :*

Be it known that I, AMENZO HAWVER, of the town of Union, in the county of Broome and State of New York, have made certain new and useful Improvements in the Construction of Leather-Scrubbers, of which the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, in which—

Figure 1 is an end view; Fig. 2, a cross-section, showing the inside of the leather-scrubber wheel, the arrangement of the buckets, leather-bars, and shank-cleaners; Fig. 3, a side view of one of the shank-cleaners.

A represents the water-vat; B, the water-wheel; *a a a*, the buckets, or triangular slats of the same; C C, the square bars for turning over the leather as the wheel revolves; D D, the shank-cleaners; and E, the water-box in the shape of a V-shaped trough, and placed a little back of the center, a short distance above the wheel, so as to allow the water to fall into the same, and not be flung off by the revolving of the wheel.

The shank-cleaners D D are fastened to the inside of the heads *b b* of the wheel, at intervals, and about half-way between the center and the edge, and stand out at right angles to the heads. They are of peculiar shape, as shown in Fig. 3, having a rounded edge, so that the shanks of the hides, as the hides are thrown over by the wheel and turned by the bars C C, will come in contact with them, and thereby clean them and turn them over horizontally, throwing the hides from one end to the other. Being curved in form, they are adapted to reach the rough places in the hides or shanks.

The bars C C are placed at regular intervals

inside the wheel, attached to the heads *b b*, and serve, as before stated, to throw over and over the hides, and give them the necessary agitation.

The buckets or triangular slats *a a a* are of wood, and with spaces between, forming the periphery of the wheel. The advantage of this peculiar form of buckets is, that the water is forced into the wheel from the vat A in showers under the leather, and allows the water to fall from the water-box E in showers onto the leather, the hides being thus subjected to two different actions of the water.

The following is the operation of the device: The wheel stands in the water of the vat A, which comes into the wheel through the spaces in the buckets, and is supplied by a constant stream from the water-box E, the surplus passing out of the vat through a waste-pipe. A cog or other wheel turns the washer after the hides are put in until they are thoroughly scrubbed, and the effect is to clean better than by the old processes.

I claim—

1. In a hide-washer, the combination of the V-shaped slats *a a a*, the bars C C, and the shank-cleaners D D, all arranged and operating as and for the purpose specified.

2. The water-box E, arranged as described, in combination with the wheel B and slats *a a*, as and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

AMENZO HAWVER.

Witnesses:

T. H. PARSONS,  
J. R. DRAKE.