

S. BRANAUGH.
Machines for Scrubbing and Cleaning Leather.
 No. 157,149.

Patented Nov. 24, 1874.

Fig. 1.

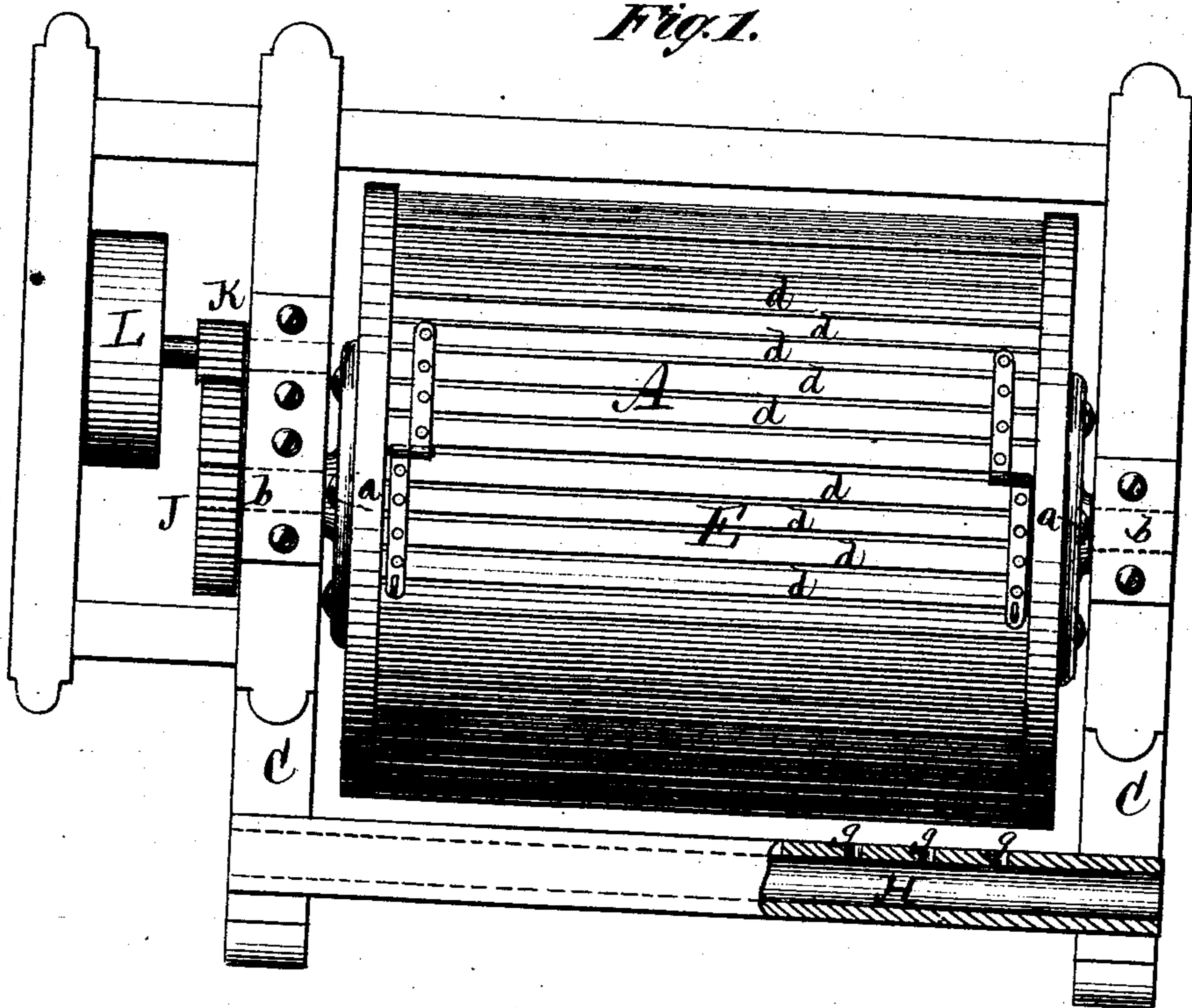
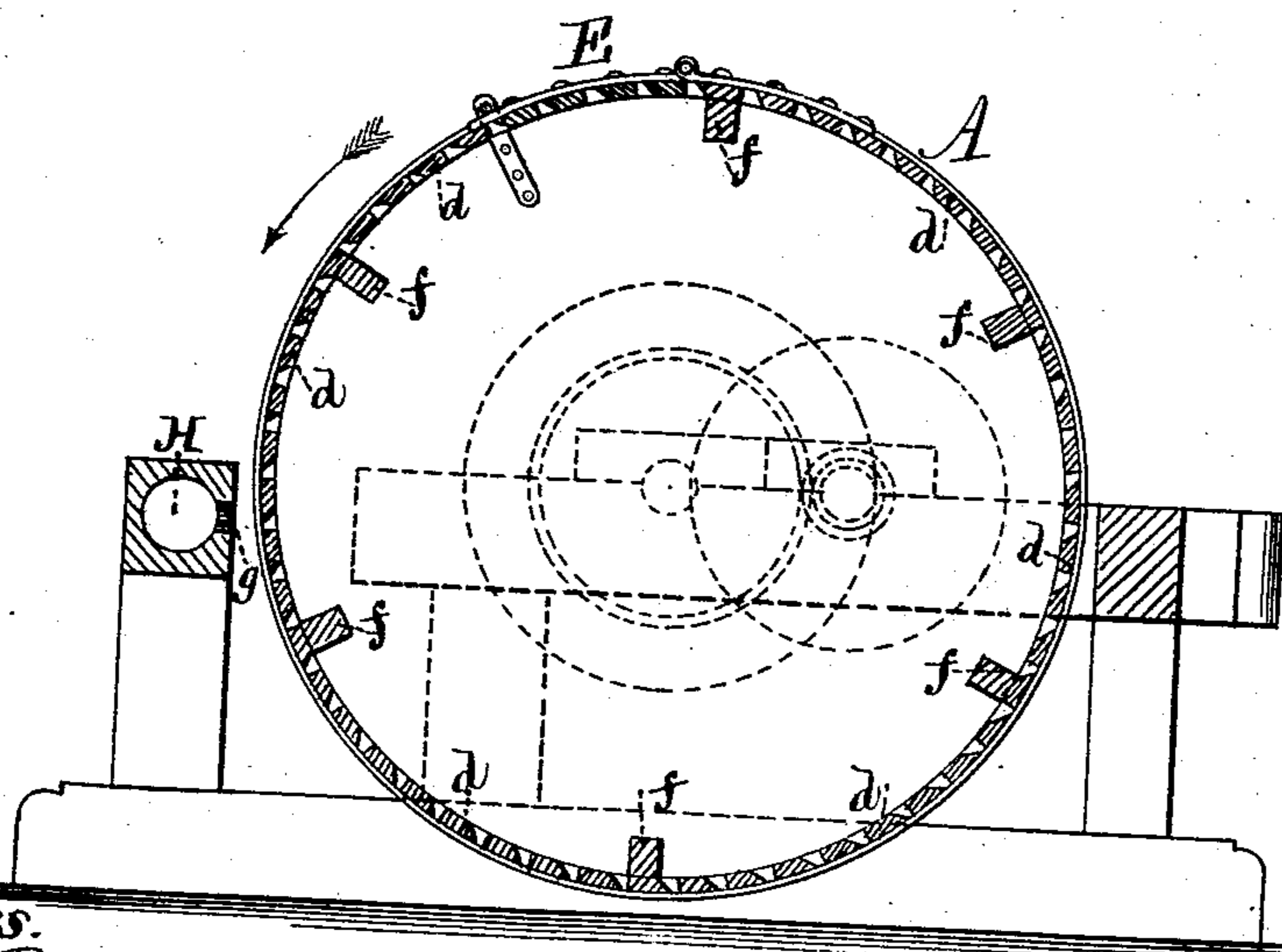


Fig. 2.



Witnesses.
John Becker
Fred. Haynes

Samuel Branaugh
by his Attorneys
Brown & Allen

UNITED STATES PATENT OFFICE.

SAMUEL BRANAUGH, OF CARTHAGE, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO CHARLES RYTHUR, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR SCRUBBING AND CLEANING LEATHER.

Specification forming part of Letters Patent No. **157,149**, dated November 24, 1874; application filed October 23, 1874.

To all whom it may concern:

Be it known that I, SAMUEL BRANAUGH, of Carthage, in the county of Jefferson and State of New York, have invented an Improved Machine for Scrubbing and Cleaning Leather; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification.

My invention relates to an apparatus for thoroughly cleaning the hides after they have been removed from the vats; and it consists in a revolving cylinder of novel construction, and the combination therewith of a perforated water-pipe, whereby the hides are cleaned by friction against each other and by jets of water forced into the cylinder during its revolution.

In the accompanying drawing, Figure 1 is a top view of my improved machine. Fig. 2 is a transverse vertical section.

A represents a hollow cylinder, the heads of which are provided with gudgeons *a a* having their bearings in boxes *b b* in a frame-work, C, which supports the entire apparatus, the cylinder being arranged to revolve in a vertical plane. The heads of the cylinder are connected by slats *d*, extending from one to the other to form the peripheral surface. The slats lie parallel with each other, with sufficient space between them to allow of the free passage of water.

In a cylinder seven feet long by six feet in diameter the slots should be one inch apart, as more than one inch would allow the leather to protude, and less would allow the spaces to become clogged, and prevent the free passage of water.

One edge of each slat is beveled inward in a tangential direction, so as to form a sharp or chisel-shaped edge, while the other edge of the slat forms a right angle with the width. A number of the slats are braced together to form a door, E, which is hinged to the cylinder and provided with fastenings for holding it when closed. On the inner side of the cylinder a number of ribs or floats, *f*, are ar-

ranged in a direction parallel with the axis of the cylinder. On the frame-work C is a pipe or tube, H, lying parallel with the axis of the cylinder, and having perforations *g* on the side toward the cylinder. Water is introduced into the pipe or tube through one or both ends, and escapes through the perforations *g* in small streams or jets.

The leather is placed in the cylinder immediately after being removed from the vat, the number of sides of leather placed there at one time being governed by the size of said cylinder, and limited to such a number as can be conveniently worked without crowding. Motion is imparted to the cylinder in any suitable manner.

The drawing shows one of the gudgeons *a*, provided with a gear-wheel, J, driven by a pinion, K, on the same shaft with a pulley, L. The number of revolutions should be about fifteen per minute.

The cylinder containing the leather to be washed revolves in the direction of the arrow shown in Fig. 2. The water issuing from the perforations *g*, in streams or jets, is forced through the spaces between the slats, and passes into the interior of the cylinder. As the beveled edges of the slats pass the streams or jets of water they cut said streams and spread them into a continuous sheet, in which form the water falls upon the leather in the interior of the cylinder. The revolution of the cylinder causes the sides of leather to rub against each other with a scrubbing motion, and the ribs or floats *f* prevent the leather from sliding around in a mass against the slats, and wearing out the grain of the leather lying contiguous to the slats, which motion, with the action of the water passing between the slats in the manner described, thoroughly scrubs and cleans the leather and removes from it all hair and dirt and other extraneous matter. After acting upon the leather the water drips through the spaces between the slats and falls under the cylinder.

I do not claim, broadly, a drum composed of longitudinal slats attached to heads with an intervening space, through which may

pass water carried in a box or trough beneath the drum, as such is not new of itself; but

What I claim as new, and desire to secure by Letters Patent, is—

The slats *d*, attached to the heads of the revolving drum and constructed with an inwardly-beveled edge, and provided with a series of horizontal floats or ribs, *f*, in com-

bination with the perforated pipe *H*, arranged to inject the water upon the beveled edges of the slats for spreading the same and delivering it in a sheet within the cylinder, as and for the object specified.

SAMUEL BRANAUGH.

Witnesses:

CHAS. F. BISSELL,
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