(No Model.) 2 Sheets—Sheet 1.

C. A. SCHIEREN.

MACHINE FOR BREAKING AND SOFTENING RAWHIDES.

No. 363,546. Patented May 24, 1887.

Fig. 1.

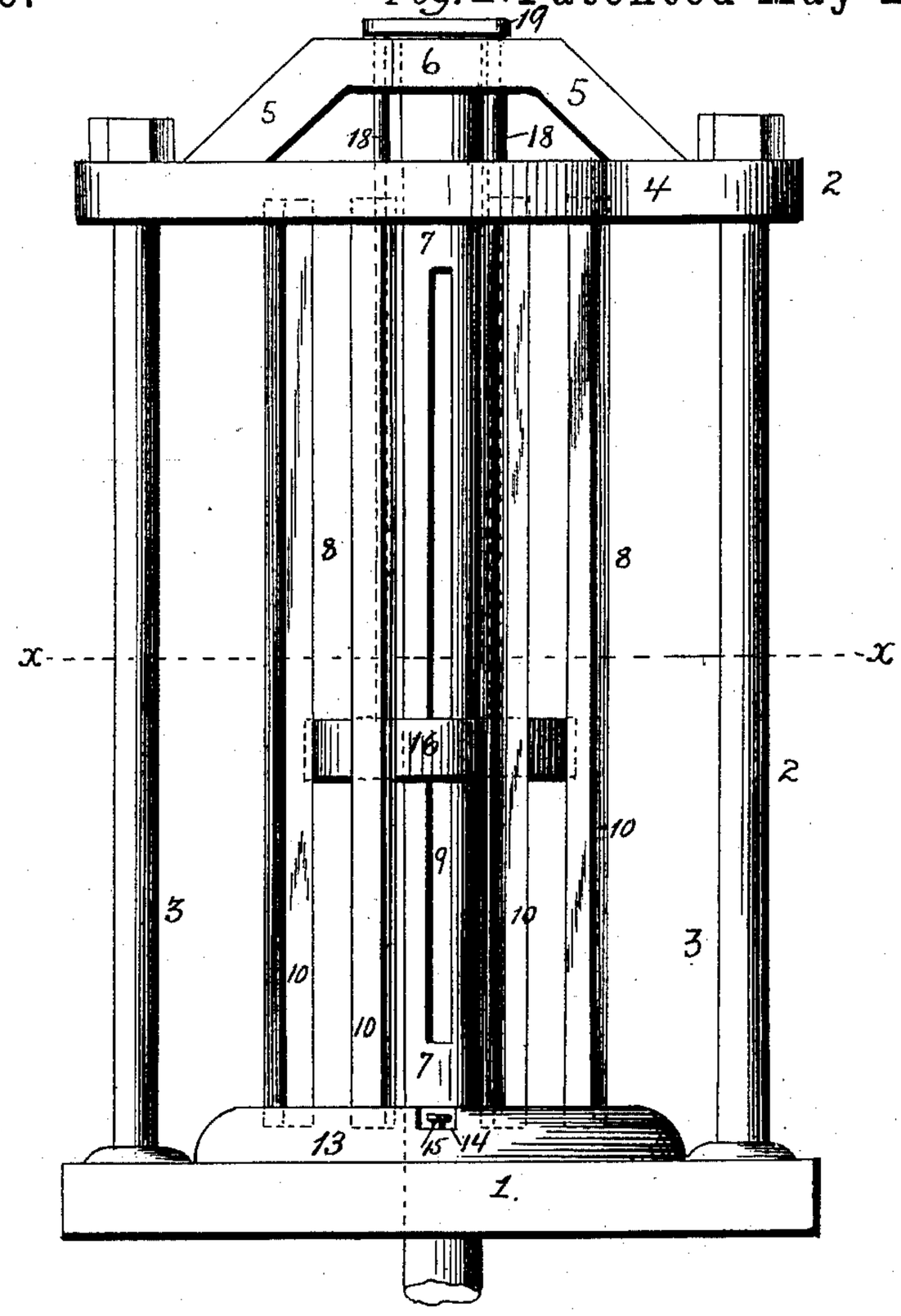
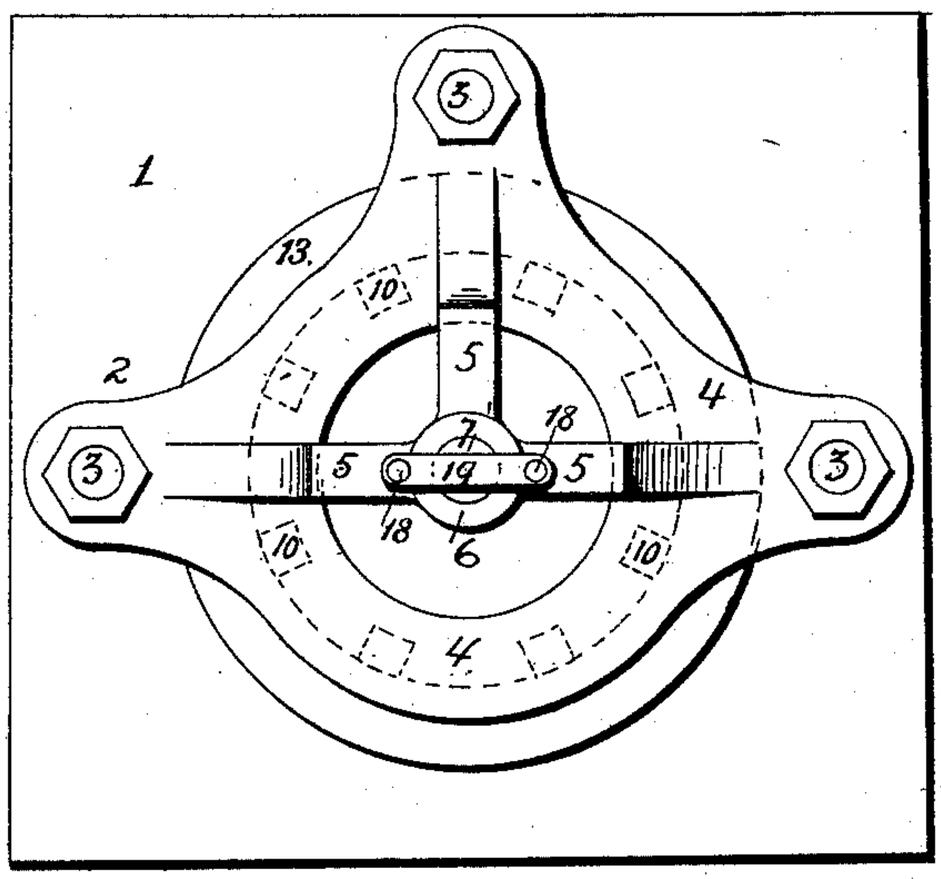


Fig. 2.



Attest:
L. B. Brock
A. Johnson

Inventor:
C. A. Schieren
by L. B. Brock
Atty

(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

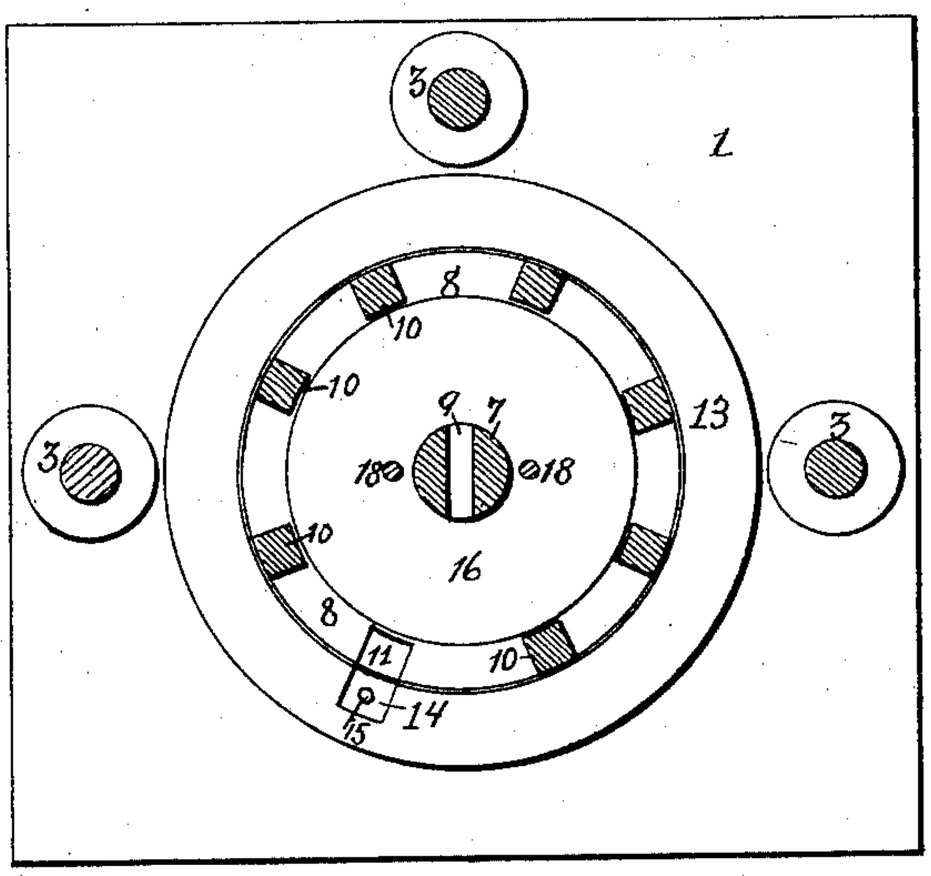
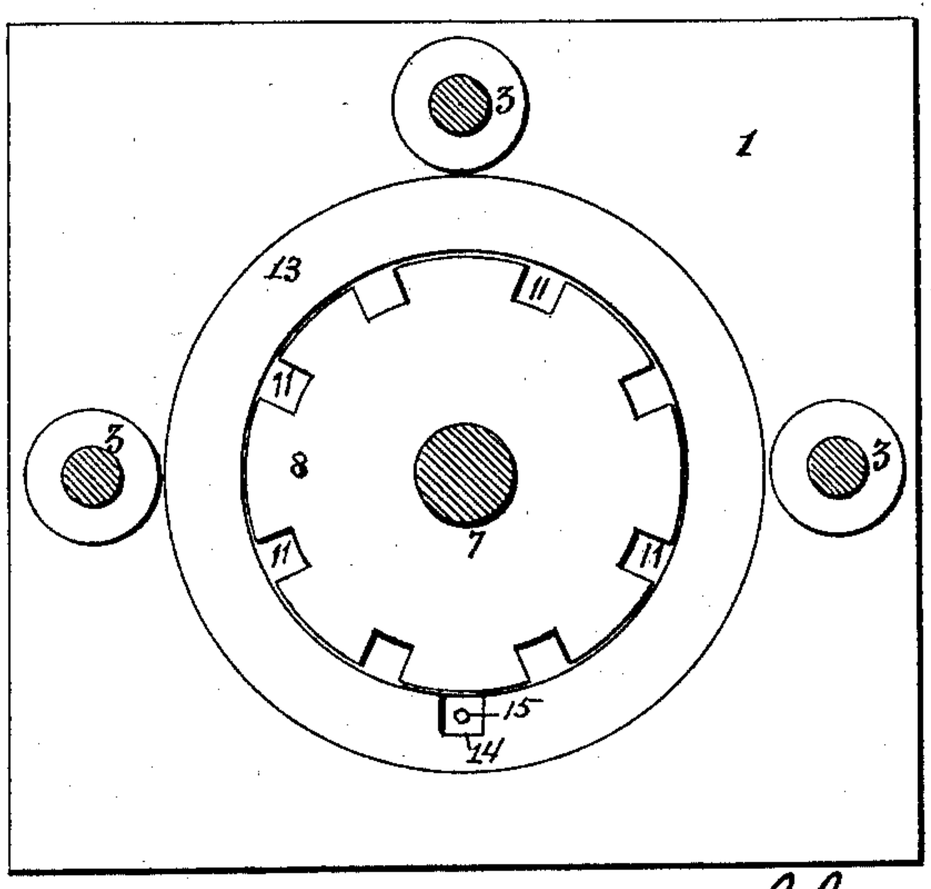


Fig. 4.



Attest:
L. B. Brock,
A. Johnson

Inventor:
Charles A. Schieren,
by C. B. Brock
Atty.

UNITED STATES PATENT OFFICE.

CHARLES A. SCHIEREN, OF BROOKLYN, NEW YORK.

MACHINE FOR BREAKING AND SOFTENING RAWHIDES.

SPECIFICATION forming part of Letters Patent No. 363,546, dated May 24, 1887.

Application filed March 15, 1887. Serial No. 230,956. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. SCHIEREN, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Machines for Breaking and Softening Rawhides; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My improvement relates to that class of machines which are used for breaking, softening, or rendering pliable the hides of leather.

The object of my invention is to provide a compact machine for breaking or softening rawhides preparatory to their being manufactured into lace-leather or other manufactured leather.

My invention consists, therefore, in the following construction and combination of parts, whereby certain hereinafter-explained advantages accrue.

I will first describe the machine in detail, and then set forth its points of novelty in the claims.

Figure 1 is a front elevation of a machine embodying my improvements. Fig. 2 is a plan view thereof. Fig. 3 is a transverse sectional view on the line *x x* of Fig. 1. Fig. 4 is a detail plan of the bottom of the crib or cage, showing the staves or slats removed.

Referring to the drawings, 1 represents the bed of the machine.

2 is a substantial frame-work, which supports the principal parts of the machine. This frame comprises, preferably, three uprights or standards, 3, rigidly secured to the bed-plate.

4 represents a cap-plate, which is rigidly supported by the standards 3.

5 are portions or projecting-arms of the cap-plate 4, which are cast or formed with said plate.

6 is a journal-bearing formed centrally within the projecting arms 5, within which the main shaft 7 is journaled.

The revolving shaft 7 is journaled in the bed 1 of the machine, and also in the top of the machine. It extends below the bed-plate, where it is provided with any system of gearing which may impart to the shaft a rotary movement—say for five or six revolutions—and then a reverse rotary movement of a similar extent, and so on. This alternately-reversing rotary shaft is arranged in the center of the machine and passes down through the center of the crib or cage 8, within which the hides are introduced and manipulated.

9 is a slot made through the center of the shaft for introducing and securing the end of the hide preparatory to its being wound upon the shaft 7.

The staves or slats 10, which form the outer rim of the crib or cage 8, are each and every one independently removable from the machine for the purpose of getting free access to the interior of the cage for the proper handling of the hides which are being treated. The slats 10 are preferably concaved on their inner sides.

11 are a series of slots or mortises made in the bottom of the cage for the reception of the lower ends of the staves 10. The upper ends of the staves or slats are received into mortises in the cap-plate 4, as shown in dotted lines, Fig. 1.

The bed-plate of the cage 8 is circular and the outer sides of the slots 11 are cut away, so that each slat may be withdrawn outwardly therefrom. To keep them in place, however, until it is desired to move any one or more of them in the process of getting into the interior of the cage, I have arranged a ring, 13, the inner sides of which normally hold the slats or staves in position and prevent them from being displaced.

14 is a slot cut radially across the upper side of the ring 13 and of the same depth as the slots 11 in the bed of the cage. The normal position of this slot is as shown in Fig. 4 of the drawings, where the ring is secured by a pin, 15, passing through it into the bed-plate 1. When it is desired to remove any one of the slats 10, the pin is withdrawn and the ring rotated until the slot 14 is opposite the slat desired to be removed, when said slat may be pulled outwardly from the bottom through the slot 14 and removed from the cage.

In like manner any of the slats may be removed.

16 is a follower, which surrounds the shaft 7 and slides up and down thereon. It is provided with guide-rods 18 and a cross-bar, 19, which limits its downward movement. This follower rests upon the hide during the process of breaking or softening it.

It will be noticed that the front of the machine is left free and unobstructed by the standards of the frame, so that free access may be had to the cage for the purpose of manipulating the hides.

I employ three or more standards projecting up from the bed-plate to support the cap-plate and the central shaft rigidly. In a machine of this class, subjected to varying strains, it is necessary that both the rear and sides of the machine should be very strongly braced, so that the front approach to the cage may be left entirely unobstructed.

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

1. In combination with the cage, the cap or top plate having a central aperture and converging arms extending upwardly therefrom, provided with a journal-bearing on the axial line of the aperture, substantially as described.

2. A cage provided with removable slats, and a movable ring surrounding the slats, having a slot adapted to register with each of the slats, substantially as stated.

3. In combination with the follower-ring, a cage provided with separably-removable slats.

4. A crib provided with a bed-plate having a series of open slots on its outer edge.

5. A crib provided with a bed-plate having a series of open slots on its outer edge, and a ring having a slot therein adapted to revolve, so as to register with any one of such slots.

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

CHAS. A. SCHIEREN.

Witnesses:

ALFRED J. MENGE,

F. A. M. BURRELL.