

(No Model.)

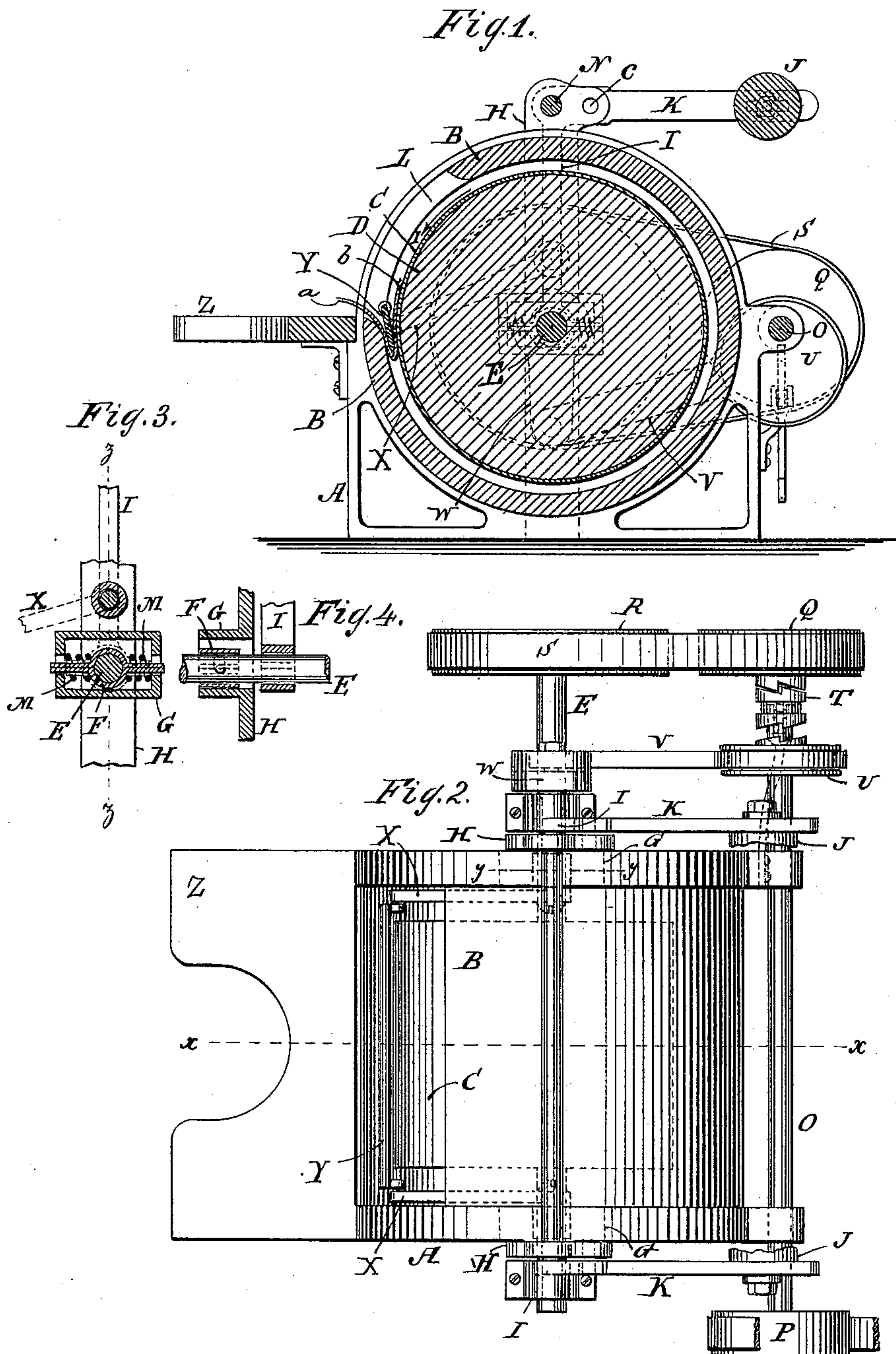
2 Sheets—Sheet 1.

J. WAYLAND.

MACHINE FOR GRAINING LEATHER.

No. 372,585.

Patented Nov. 1, 1887.



WITNESSES:

Edward Wolff
William Miller

INVENTOR

James Wayland

BY *Van Santvoord, Hauff*

ATTORNEYS

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Fig. 5.

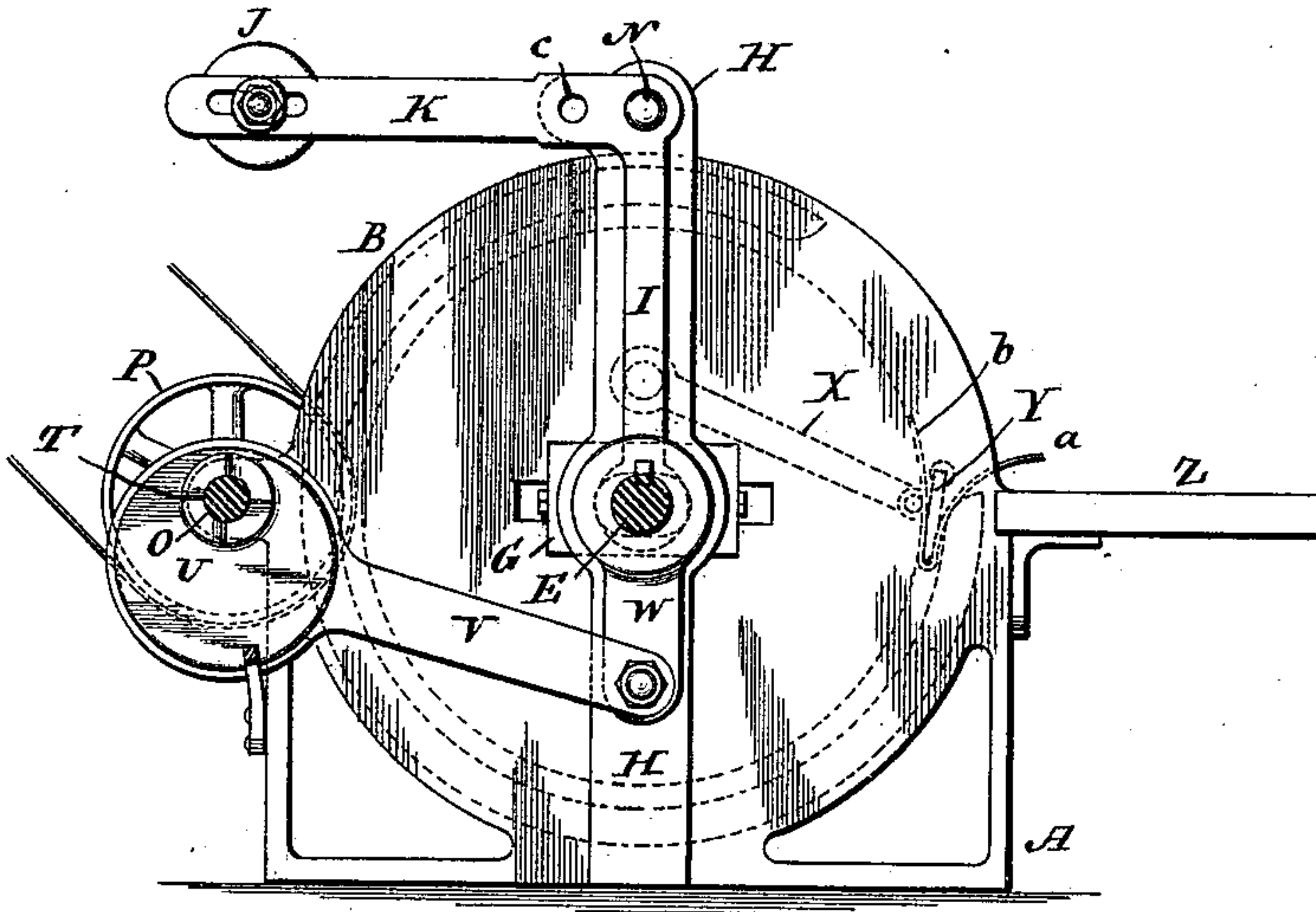
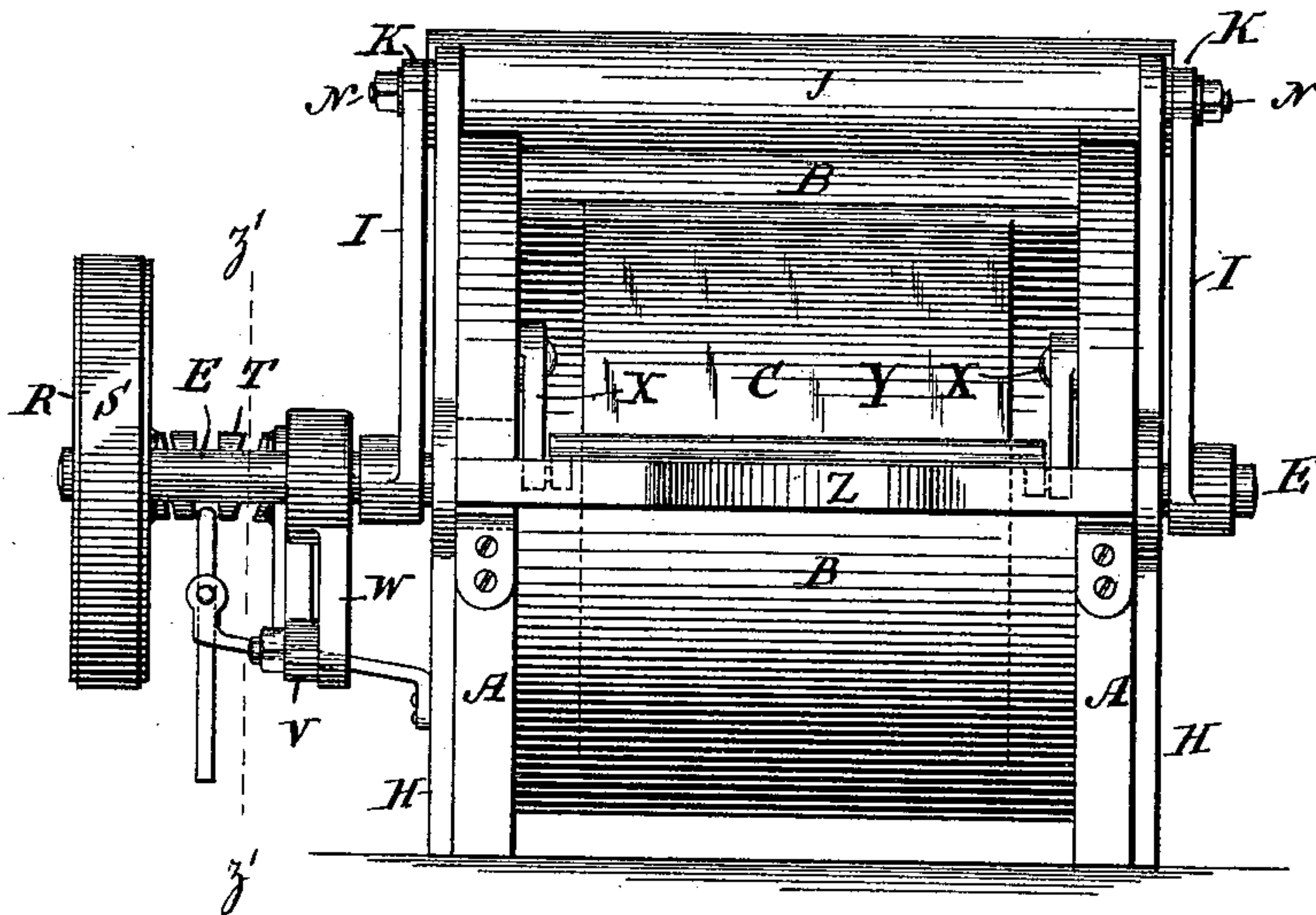


Fig. 6.



WITNESSES:

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INVENTOR

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UNITED STATES PATENT OFFICE.

JAMES WAYLAND, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF AND MAHLON M. SCOTT, OF SAME PLACE.

MACHINE FOR GRAINING LEATHER.

SPECIFICATION forming part of Letters Patent No. 372,585, dated November 1, 1887.

Application filed June 30, 1887. Serial No. 242,971. (No model.)

To all whom it may concern:

Be it known that I, JAMES WAYLAND, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Graining Leather, of which the following is a specification.

The object of this invention is to enable the graining of leather to be rapidly accomplished, as set forth in the following specification and claims and illustrated in the accompanying drawings, in which—

Figure 1 is a section in the plane xx , Fig. 2. Fig. 2 is a plan view of mechanism for graining leather. Fig. 3 is a section in the plane yy , Fig. 2, parts being broken away. Fig. 4 is a section in the plane zz , Fig. 3; Fig. 5, a section on the line $z'z'$, Fig. 6; and Fig. 6, a front elevation of the machine.

Similar letters indicate corresponding parts.

In the drawings, the letter A indicates a frame-work, and B a hollow cylinder arranged in the frame-work with its ends secured thereto and provided in one side with a longitudinal opening or slot, L. Within the cylinder, and mounted on a central shaft, E, is arranged a carrier composed of a cylinder, D, of wood or other suitable material, covered with leather or cloth.

The shaft or axle E of the cylinder D rests in journals F, supported in suitable boxes, G, on standards H, secured to the base or frame A. The journals F, with the axle E, are free to move a certain distance laterally back and forth in the boxes G, while springs M in the boxes and at opposite sides of the journals F tend to return the axle E to its original position when freed from any disturbing force. This motion of the axle E allows a corresponding motion of the cylinder or roller D.

To the axle E is connected a bell-crank lever, I K, pivoted at N and provided with a spring or weight, J, the tendency of which is to force the roller D toward the opening L in the support B.

The cylinder D can be rotated or oscillated, as may be desired. The driving-shaft O receives motion through its pulley P. A clutch, T, rotates with the shaft O. A pulley, Q, and an eccentric, U, are mounted loosely upon the shaft O. By moving the clutch T so as to

make it engage the pulley Q said pulley Q will be rotated, and said rotation of the pulley Q will be communicated through the belt S to the pulley R on the axle E, thus rotating said axle and the cylinder D, with the carrier C.

By moving the clutch T out of engagement with the pulley Q and into engagement with the eccentric U said eccentric U will be rotated, and the rotation of said eccentric U will oscillate the link V and the arm W, which arm is keyed to the shaft E, thus oscillating the shaft E and the cylinder D, with the carrier C.

To the standards H, or to the cylinder or support B, are pivoted arms X, carrying a creaser, Y. A table, Z, is shown as being applied to the device.

The operation is as follows: A piece of leather or hide, ab , which is to be grained is bent or folded, as seen in Fig. 1. One edge, a , of leather is caused to rest in a fixed position on the support B, and the creaser Y is caused to rest in the bight or loop of the leather. By causing the cylinder C to move in the direction of arrow 1, Fig. 1, the edge b is gradually carried in the direction of said arrow, so that the bight in the leather is caused to advance or move from the edge a and to approach the edge b . By thus causing the bight to advance or to travel along the hide or leather the face of the hide or leather is grained or broken.

It should be noticed that the creaser Y can be dispensed with, if desired, and the device is then still operative; but said creaser is of advantage, as it enables a bight to be readily formed in the leather, since, by causing one edge of the leather piece to rest on the support B and placing the body of the leather piece upon the movable surface C, and then allowing the creaser Y to swing from the upper part of the machine to the position shown in Fig. 1, the action of the creaser upon the leather will form a bight or loop in the leather.

It will be noticed that the bight or loop is acted on by the device throughout the entire length of the loop, so that the graining is rapidly and thoroughly accomplished. By making the bight or loop extend across the entire width of the leather, and making the device wide enough to receive such loop along its

entire length, the entire width of the leather can be grained at one operation.

The arms K and standards H are formed with eyes or holes c, Figs. 1 and 5, and when it is desired to prevent oscillation of the said arms on the pivots N a bolt or pin is inserted in the eyes or holes to lock the arms K.

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

10 1. The combination, with the hollow cylinder B, having the longitudinal opening L, of the cylinder C, arranged in said hollow cylinder and covered with flexible material, a shaft, E, carrying the covered cylinder, and pivoted
15 bell-crank levers I K, supporting the shaft and provided with a weight, J, to force the covered cylinder toward the opening L, substantially as described.

20 2. The combination, with the hollow cylinder B, having the longitudinal opening L, of the cylinder C, covered with flexible material, and means, substantially as described, for rotating the covered cylinder and forcing it toward the opening in the hollow cylinder.

25 3. The combination, with the hollow cylinder B, having the longitudinal opening L, of the cylinder C, covered with flexible material, and means, substantially as described, for rotating and moving the covered cylinder toward the
30 cylinder B, and springs M, acting on opposite sides of the journals of the covered cylinder, substantially as described.

4. The combination, with the hollow cylinder B, having the longitudinal opening L, the cylinder C, covered with flexible material, and means, substantially as described, for rotating the covered cylinder and forcing it toward the opening in the hollow cylinder, of the vibrating creaser Y between the covered cylinder and one edge of the aforesaid opening, substantially as described. 40

5. The combination, with the hollow cylinder B, having the opening L, and the cylinder C, covered with flexible material, of the vibrating creaser Y, substantially as described. 45

6. The combination, with the hollow cylinder B, having the longitudinal opening L, of the cylinder C, the shaft E, having journal-boxes G, the standards H, and the pivoted bell-crank levers I K, carrying the said shaft and having a weight, J, substantially as described. 50

7. The combination, with a hollow cylinder, B, having the opening L, of the covered cylinder C, levers, and a weight acting on the levers to force the covered cylinder against the hollow cylinder, substantially as described. 55

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

JAMES WAYLAND. [L. S.]

Witnesses:

W. C. HAUFF,

E. F. KASTENHUBER.