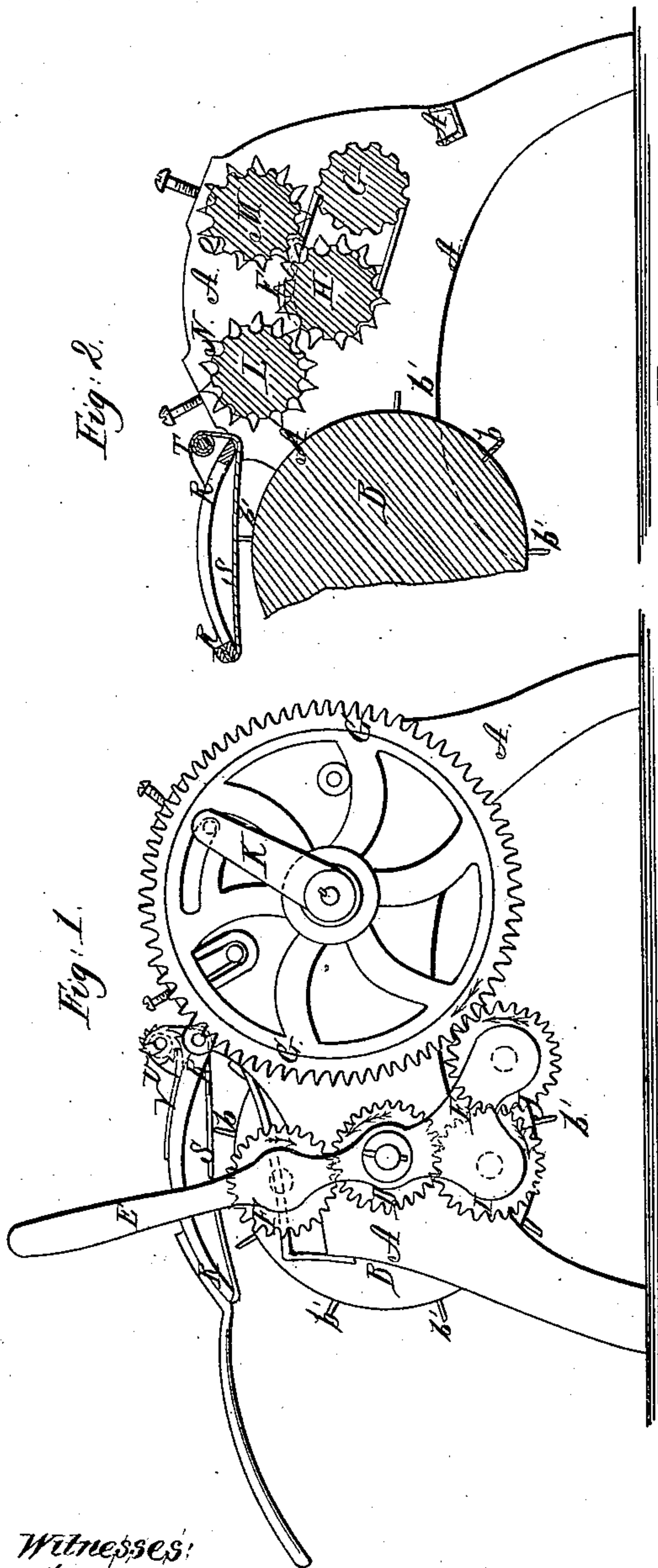


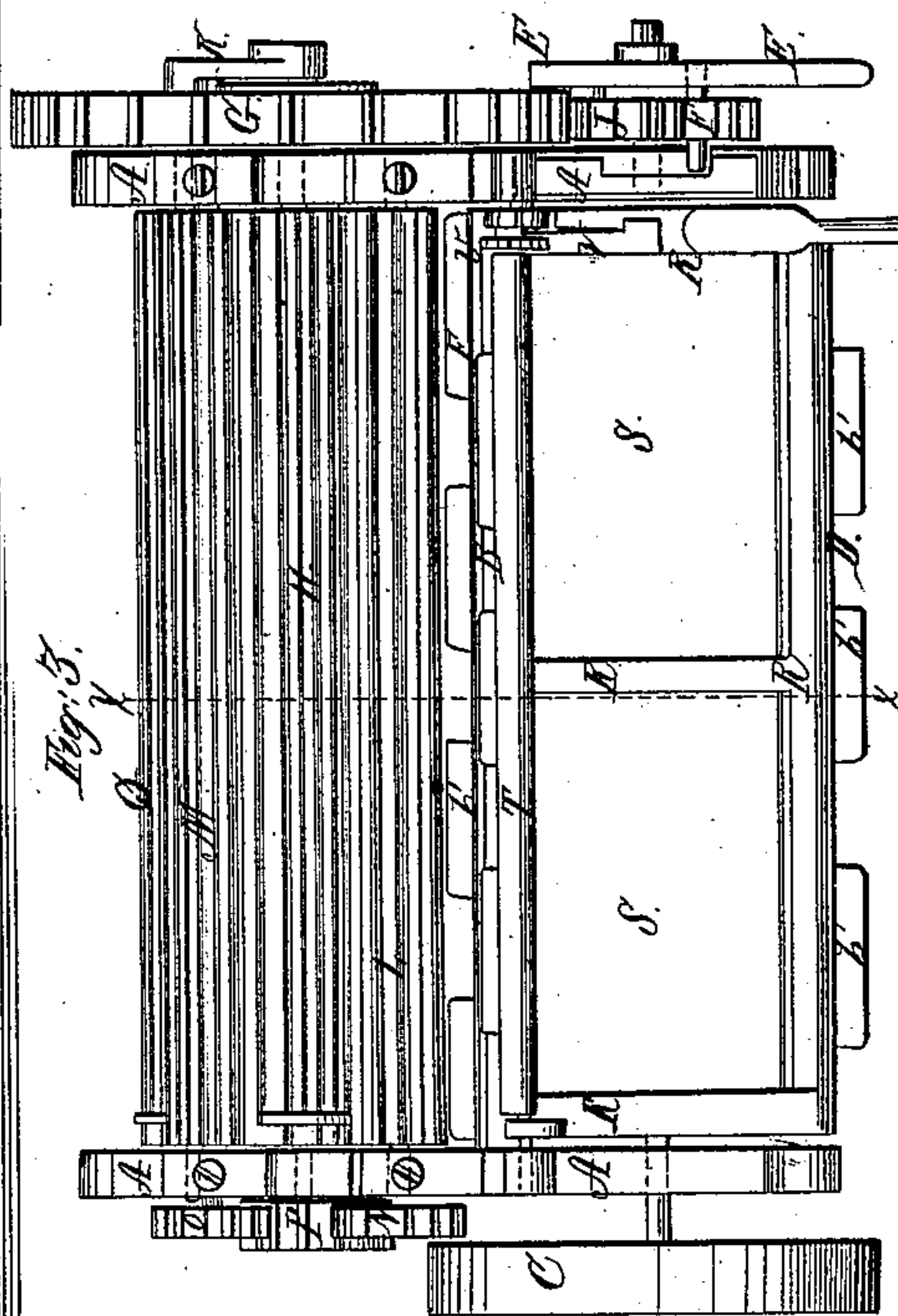
# Brock & Schultz, Preparing Hides.

N<sup>o</sup> 81247.

Patented Aug. 18/1868.



Witnesses:  
H. A. Morgan  
J. C. Leaton.



Inventors:  
E. Brock  
J. Schultz.  
per Munn & Co.  
Attorneys

# United States Patent Office.

ELIAS BROCK AND JUDSON SCHULTZ, OF ELLENVILLE, NEW YORK,  
ASSIGNORS TO JUDSON SCHULTZ.

*Letters Patent No. 81,247, dated August 18, 1868.*

## IMPROVEMENT IN MACHINES FOR UNHAIRING HIDES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that we, ELIAS BROCK and JUDSON-SCHULTZ, of Ellenville, in the county of Ulster, and State of New York, have invented a new and useful Improvement in Machines for Unhairing Hides; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an end view of our improved machine.

Figure 2 is a detail cross-section of the same, taken through the line *x x*, fig. 3.

Figure 3 is a top view of the same.

Similar letters of reference indicate like parts.

Our invention has for its object to improve the construction of the unhairing-machines, patented by ELIAS BROCK, June 25, 1867, and numbered 66,124, and by JUDSON SCHULTZ, June 25, 1867, and numbered 66,176, so as to make said machines more convenient in use, and more satisfactory in operation.

It consists in the construction and combination of various parts of the machine, as hereinafter more fully described.

A is the frame of the machine.

B is the knife-cylinder, to which the knives or scrapers *b'* are attached in the ordinary manner.

The journals of the knife-cylinder B revolve in bearings in the frame A, and to the projecting end of one of said journals is attached the drive-pulley C, by means of which motion is given to the machine.

To the projecting end of the other journal is attached a gear-wheel, D.

E is a lever, having a hole formed through its middle part to receive the projecting end of the journal of the knife-cylinder B, so that the said lever may ride upon the said journal.

To the inner side of the upper part of the arm or lever E is pivoted a gear-wheel, F, in such a position that its teeth may mesh into the teeth of the gear-wheel D, and that, when the upper end of the lever E is moved forward, the teeth of the said gear-wheel F may mesh into the teeth of the gear-wheel G, working loosely upon the journal of the main feed-roller H.

I is a gear-wheel, pivoted to the lower part of the lever E, in such a position that its teeth may mesh into the teeth of the gear-wheel D.

J is a gear-wheel, pivoted to a projecting part or arm of the lever E, in such a position that its teeth may mesh into the teeth of the gear-wheel I, and that, when the lower end of the lever E is moved forward, its teeth may mesh into the teeth of the gear-wheel G of the feed-roller H.

By this means the direction of the feed may be conveniently changed, so as to pull the hide in the opposite direction from that in which the knife-cylinder is moving, or allow it to move in the same direction, as required, or as the progress of the operation may render desirable.

K is a crank-arm, attached to the end of the journal of the feed-roller H, and the crank-pin of which enters a curved slot in the gear-wheel G, so that shock, which would otherwise be caused by reversing the feed, may be eased or diminished.

L and M are feed-rollers, pivoted to the frame A, by means of elastic bearings, in such positions as to clamp the hides between them and the feed-roller H, at the same time they give, to accommodate themselves to the varying thickness of the hide.

The rollers L M are made to revolve in the opposite direction from the roller H by the gear-wheels N O, attached to the projecting ends of their journals, and which mesh into the gear-wheel P, attached to the end of the journal of the roller H.

Q is a roller, pivoted to the frame A in such a position as to support and guide the hide in its movement through the machine.



The roller Q receives motion from the roller H, with which it may be connected, by means of a band, or by gear-wheels, in such a way as to be revolved in the same direction in which the said roller H is revolving.

It should be observed that the teeth or fingers of the gear-wheels N O P should be made long, and so formed as to operate the rollers properly, at whatever distance they may be from the roller H.

The rollers H L M Q may be made smooth or grooved, as may be desired.

R is a frame, pivoted to the frame A, and curved to correspond with the curve of the knife-cylinder B.

S is an apron, one edge of which is secured to the edge of the frame R, and the other edge of which is attached to a roller, T, the journals of which work in bearings in the frame R, and which is provided with a ratchet-wheel, U, and pawl V, so that the roller T may be secured in position to hold the apron S at any desired tautness.

Having thus described our invention, we claim as new, and desire to secure by Letters Patent—

1. So arranging the operating-mechanism of the feed of an unhairing-machine that the said feed may move in the same direction with or in an opposite direction from the movement of the knife-cylinder, at the will of the operator, substantially as herein shown and described, and for the purpose set forth.

2. Connecting the knife-cylinder B with the main feed-roller H, by means of the gear-wheels D F I J G, and lever E, constructed and arranged substantially as herein shown and described, and for the purpose set forth.

3. The combination of the roller T, ratchet-wheel U, and pawl V, with the pivoted frame R, for the purpose of adjusting the tension of the apron S, substantially as herein shown and described.

4. The combination of the rollers L M Q, and finger-gear wheels N O P, with each other, and with the rollers H, substantially as herein shown and described, for the purpose of holding the hide and controlling its movement.

5. So arranging the operating-mechanism of the feed of an unhairing-machine, as to ease or diminish the shock caused by reversing the feed, substantially as herein shown and described, and for the purpose set forth.

6. The combination of the crank-arm K with the journal of the feed-roller H, and with the slotted gear-wheel G, substantially as herein shown and described, and for the purpose set forth.

ELIAS BROCK,  
JUDSON SCHULTZ.

Witnesses:

T. G. CHAMBERLIN,  
JOHN H. DECKEN.