

H. & L. ROYER.
MACHINE FOR TREATING HIDES.

No. 77,920.

Patented May 12, 1868.

Fig: 1.

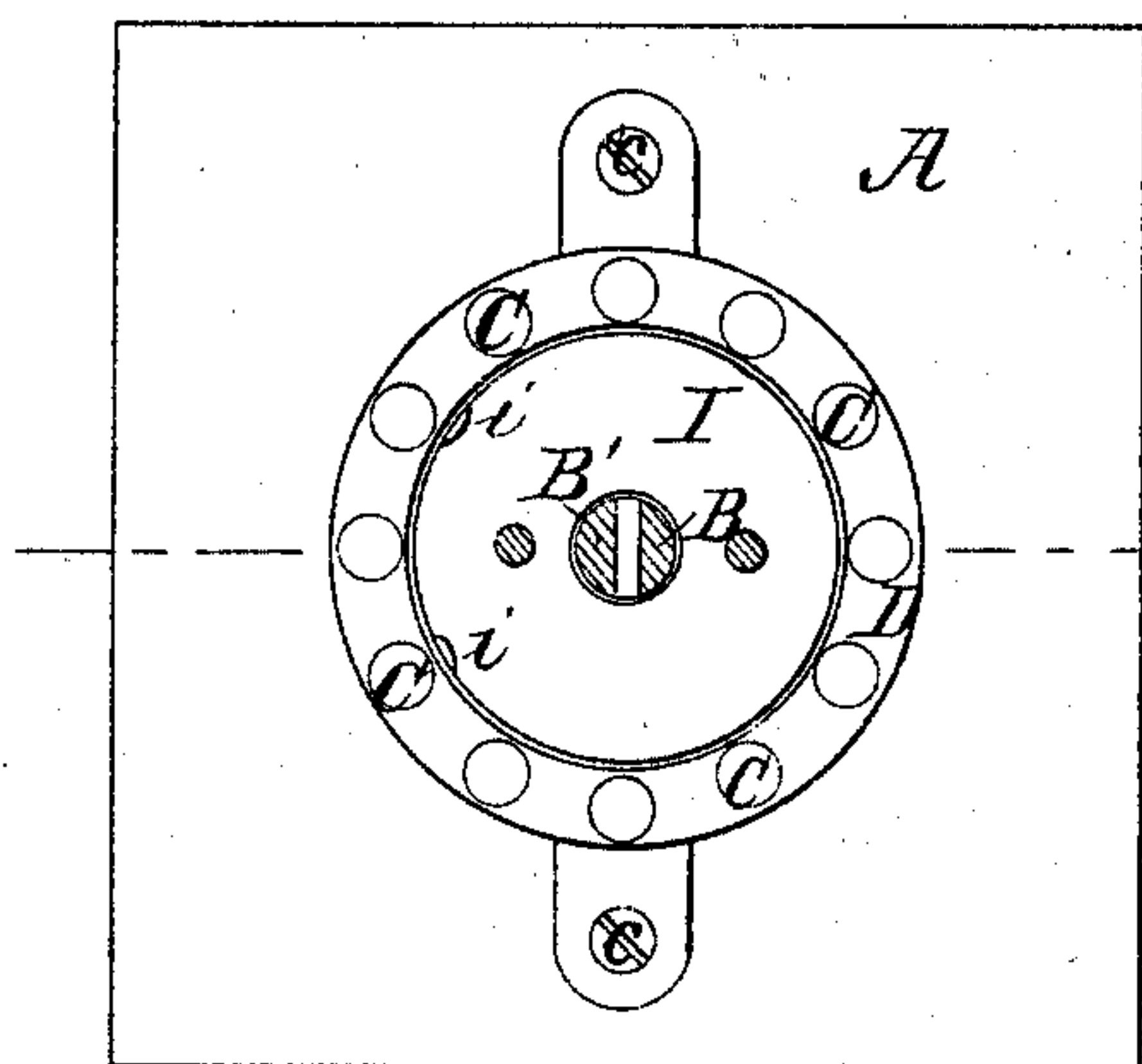


Fig. 2.

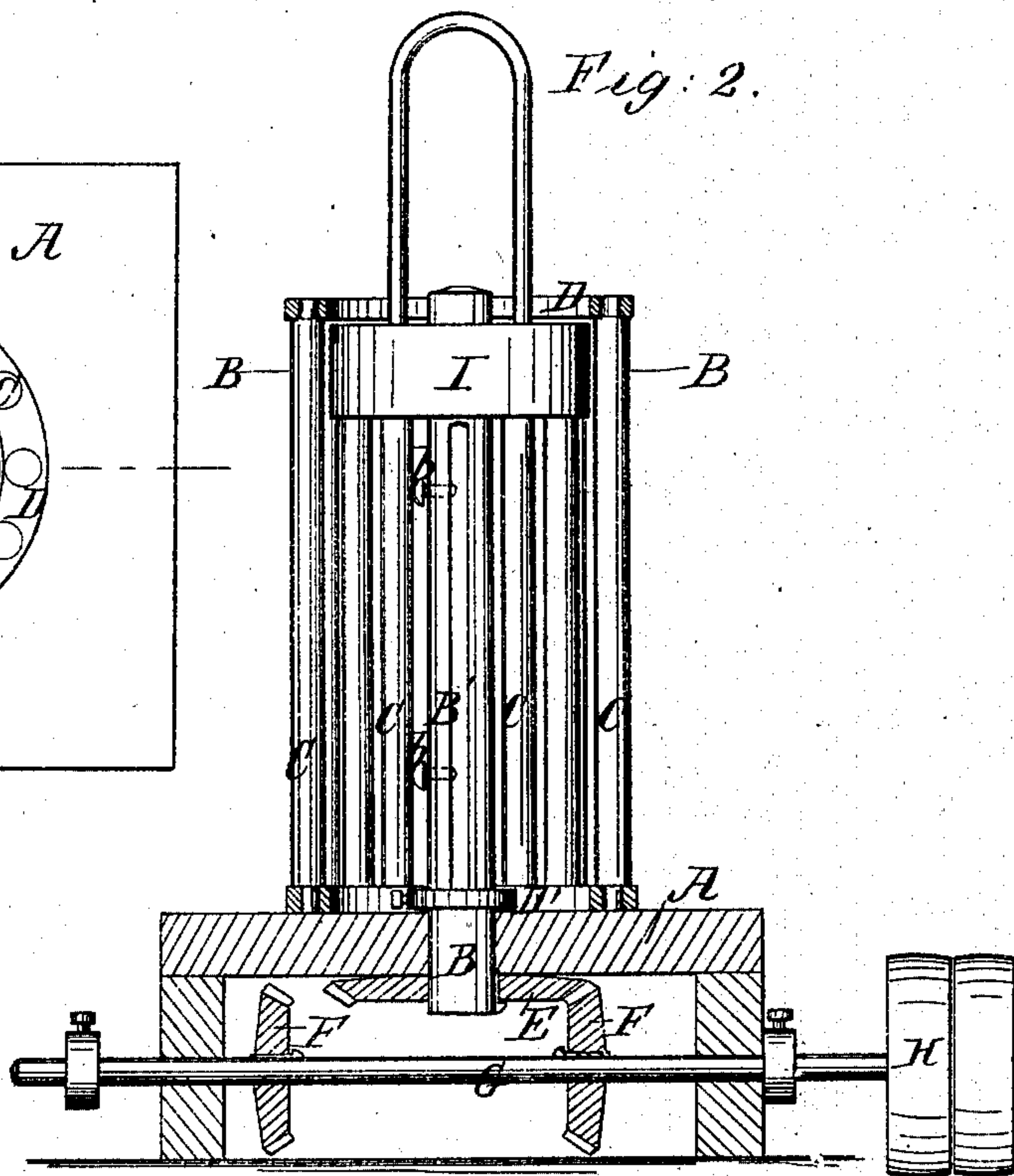


Fig: 3.

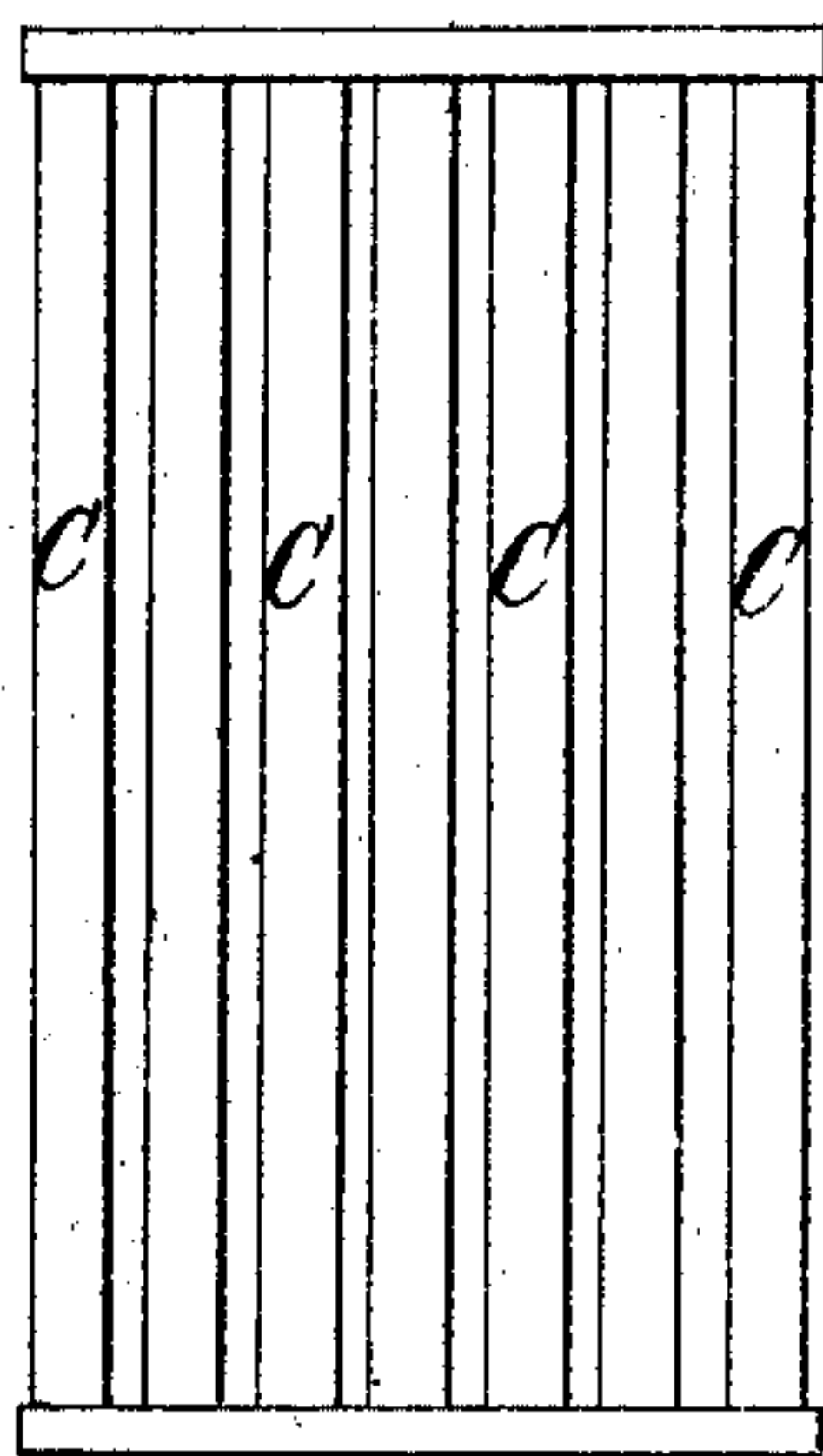
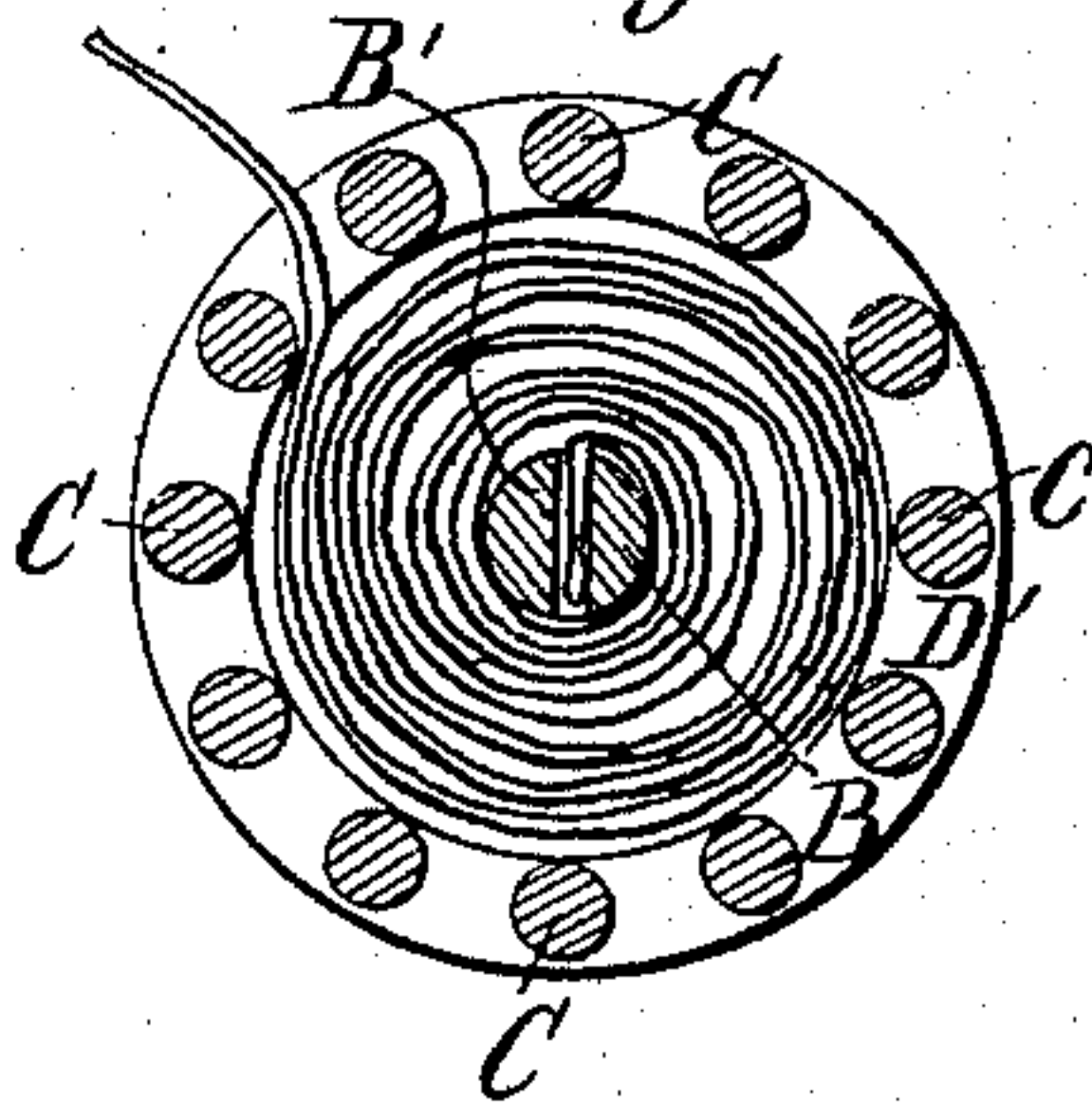


Fig: 4.



Witnesses;
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HERMAN ROYER AND LOUIS ROYER, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 77,920, dated May 12, 1868.

IMPROVED MACHINE FOR TREATING 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, HERMAN ROYER and LOUIS ROYER, of San Francisco city, San Francisco county, State of California, have invented a new and improved Machine for Converting Raw Hides into Leather; and we do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use our said invention or improvements without further invention or experiment.

The nature of our invention is to provide an improved machine for converting raw hides into leather, of that class which is used for belting, lacings, and other purposes where it is necessary to preserve the native strength and toughness without destroying or impairing the natural fibres or grain of the leather.

In order to accomplish our object, we employ a machine mounted on a suitable frame, having a vertical slotted shaft, to which is attached, at its base, a bevelled wheel between two bevelled pinions upon a horizontal shaft. Around the vertical shaft is placed a row of vertical pins or rollers, held in place by upper and lower rings, one of which is firmly bolted to the frame.

An iron weight or press is employed for crowding the coil of hide down after it has received the forward and back action around the shaft.

To more fully illustrate and describe our invention, reference is had to the accompanying drawings, of which—

Figure 1 is a horizontal section through A B.

Figure 2, a side sectional elevation, showing central shaft.

Figure 3, a side sectional elevation.

Figure 4, a horizontal section, showing the hide around the shaft in the circle of pins.

A represents the frame, of any suitable materials, up through which the vertical shaft B passes, having a slot, B', through which the end of the hide is placed, where it is held in place by the set-screws *b b b*.

C C C are vertical pins or rollers set in the rings D and D', the lower one, or D', being firmly attached to the frame by bolts *c c*.

A bevelled wheel, E, is attached to the vertical shaft B, which is actuated by the bevelled pinions F F placed on the horizontal driving-shaft G. This shaft has a pulley, H, for driving the machine.

An iron weight, I, having an opening through its centre for the vertical shaft, and vertical grooves, *i i*, in it to prevent its turning, is placed upon the inside of the pins or rollers, and, by pressing upon this weight, the hide is compressed edgewise, after the forward and backward stretching or pressing is performed lengthwise.

The operation of our machine is as follows: The end of the raw hide, after it has been deprived of the hair, is introduced into the slot B', and the set-screws *b b b* turned against it, when motion is imparted to the machine, and the hide is wound tightly around the vertical shaft. When this is accomplished, and sufficient time has elapsed, the shaft is slowly reversed by throwing the other pinion into gear, when the hide commences to uncoil, or doubling back from the shaft, which, with the folding back, and pressing against the pins or rollers, produces the desired result of stretching in one way, compressing, corrugating, or roughing in the opposite direction, when the weight I is placed upon the top of the hide, and is pressed downward, which, in a measure, compensates for the stretching lengthwise.

The hide so operated upon is then treated with oil and tallow in the usual way.

By thus treating the hide in our machine, the leather is rendered very tough, and the fibres or grain are not injured, but imparts to it a rough, corrugated, and seamy appearance, making it more strong and lasting for the purposes designed than by any other machine or process.

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

1. The vertical shaft B with a slot, B', and set-screws, *b b b*, said shaft having a forward and back motion, substantially as and for the purpose described.

2. The pins or rollers C C C set in the rings D and D', together with the grooved weight I, substantially as and for the purposes described.

In witness whereof, we have hereto set our hands and seals.

HERMAN ROYER. [L. S.]
LOUIS ROYER. [L. S.]

Witnesses:

C. W. M. SMITH,
GEO. H. STRONG.