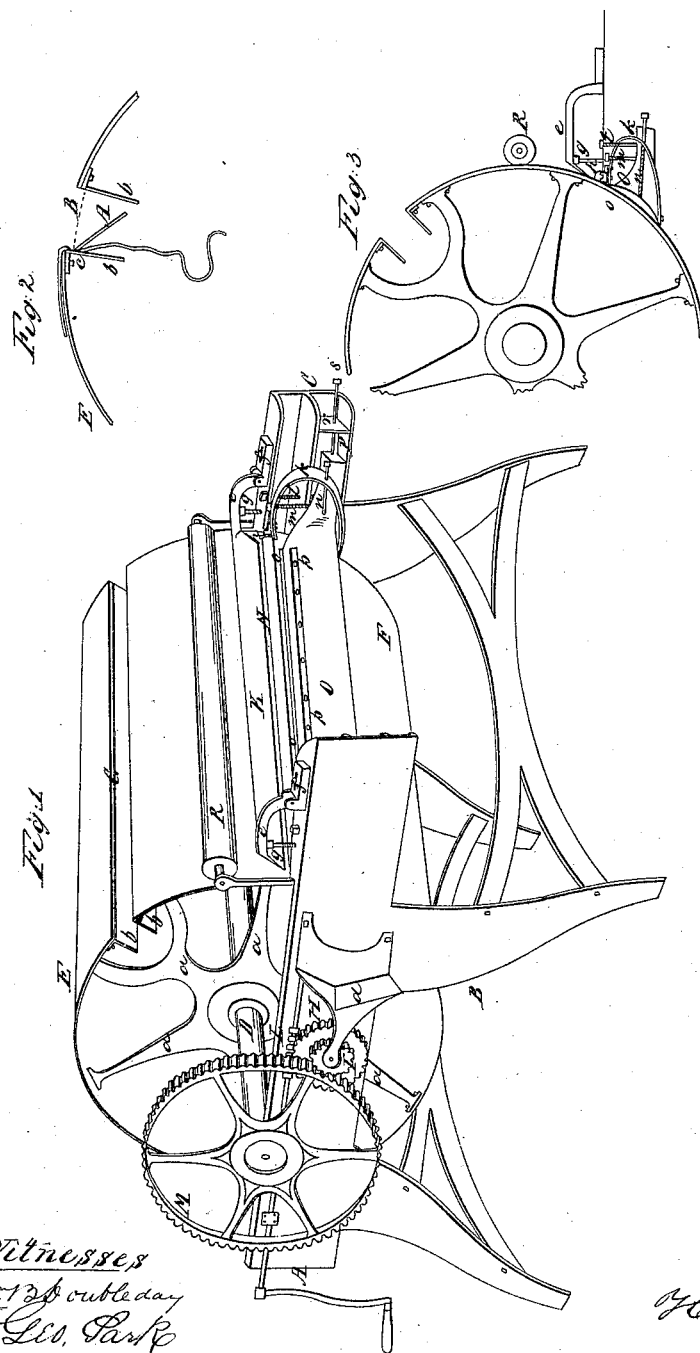


H. White
Splitting Leather.

N^o 1272.

Patented Aug. 2, 1839.



Witnesses
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HORACE WHITE, OF BINGHAMTON, NEW YORK.

MACHINE FOR SPLITTING LEATHER.

Specification of Letters Patent No. 1,272, dated August 2, 1839.

To all whom it may concern:

Be it known that I, HORACE WHITE, of the village of Binghamton, in the county of Broome and State of New York, have invented a new and useful Machine for Splitting Leather; and I do hereby declare that the following is a full and exact description, reference being had to the drawing annexed, which is to be considered a part of this specification.

A, B, C, Figure 1, is a frame of cast iron, upon which the shaft D, is supported and revolves; surrounding this shaft, and firmly connected to it by the arms *a, a, a*, is a cylinder of brass or other metal E, F, about two feet in diameter, and about two feet eight inches in length; this cylinder has an opening its whole length about three inches wide at G, and the edges of the cylinder here are stiffened and supported by longitudinal pieces *b, b*, on the inner side of the cylinder, the sides of which pieces are parallel and at nearly a right angle with the said edges of the cylinder, an enlarged section of which is seen Fig. 2. One of these pieces has a groove its whole length just within the circumference of the cylinder as seen at *c*.

Attached to the frame is an endless screw L, which is turned by the crank A. This screw meshes with the cogs of the wheel H, and drives the top of the same to the left. Firmly united with the wheel H is the small wheel or pinion I, which works in the cogs of the wheel M, fastened to the end of the shaft D. The wheel M is placed far enough from the frame to allow the endless screw and the wheel H to be placed and to revolve between it and the frame. A box like appendage *d* is fastened to the frame by screws, the object of which is to support one end of the axle of the wheel and pinion H. I. The screw, and wheels are so calculated and constructed that about one hundred revolutions of the endless screw will drive the cogwheel M and consequently the cylinder one revolution.

K, is a steel plate nearly the length of the cylinder the upper edge of which is about half an inch thick, the lower edge thin and slightly elastic. This plate is between three and four inches wide. From the ends of the plate and at right angles with its upper edge project the curved arms *e, e*, bending down and connecting by a movable joint to the blocks or thick plates marked *f, f*. These plates have a hole in them through which

a screw passes to fasten them firmly to the top of the frame. The hole is the longest in the direction of the arms so that by loosening the screw the plate K, may be carried nearer to, or drawn farther from the cylinder. Iron screws *g, g*, are inserted in the top of the frame immediately under the curved arms, the use of which are to support the steel plate K, firmly in its proper place. Immediately below this plate and lying horizontally and nearly in contact with the cylinder, is an iron roller N, about one inch in diameter, the axle of which runs in boxes which are fastened to the ends of a pair of horse shoe springs. The box is marked *h*, and the spring *h*, both in the drawing Fig. 1 and the section Fig. 3. Screws go through the upper part of each spring vertically, one of which is seen at *m*, and others through the middle of the spring horizontally, marked *n*. The turning of the first, raise or depress the roller, and of the latter, make the roller approach or recede from the cylinder. The knife or cutter is a thin steel plate the edge of which is seen at *o, o*. This is fastened to the iron back O, by screws, the heads of which are sunk in the groove *p, p*. This back is about five inches wide rounded on the outside and the side next the cylinder slightly hollowed. The ends of this back, taper a little and turn outward and rest on a shelf like appendage or projection marked P, on the inner sides of the frame. (One of these inner sides only is seen in the drawing.) These sides, or so much as projects forward of the cylinder are cast with three of those shelf like appendages, not only to support the blocks connected with the curved arms, but also the back to which the knife is fastened. They also give strength to this part of the frame.

An iron plate *r*, slides in between the middle and lower shelf on both sides, through which passes a screw *s*, against the end of the knife back, another screw *t*, on each side goes down through the upper and middle shelf upon the said knife back. These are to hold the knife firmly in its proper place. The wooden roller R, about four inches in diameter is a small distance above the plate K.

It is to be remarked that the cylinder is not perfectly circular, as it has been found by experience that the butt of a side of leather passing through the same gage in splitting cuts thinner than the other part;

therefore that part of the cylinder where the butt of the side is laid should be slightly depressed, that the distance between the cylinder and the knife at this place be a little
5 enlarged.

The machine should be constructed entirely of iron, brass, or other substantial material.

The leather is split by dropping a portion
10 of the side through the opening G in the cylinder; it is there fastened by a board the length of the cylinder and of the width of the opening. This board A, in the section Fig. 2, is placed within the said opening,
15 one edge pressing the leather strongly in the groove. The other edge is then brought up to B, on the dotted line. The other part of the side of leather is spread backward evenly toward E, with the grain side down. The
20 knife is adjusted to such a distance from the cylinder as shall correspond with the desired thickness to be given to the leather. The steel plate is properly secured. The crank A, is then turned which drives the leather
25 toward the wooden roller. This roller levels and smooths all the inequalities of surface. The leather next passes the edge of the steel

plate which pressing it strongly and moving only in one direction, peculiarly fits it for receiving a smooth and even cut from the
30 knife. The knife now splits or divides the leather; the chip, or part separated from the grain passing between the outer edge of the knife and the iron roller N. This last mentioned roller is for the purpose of keeping
35 the chip smooth and from clogging when very thin on the edge of the knife.

What I claim as my invention and desire to secure by Letters Patent is—

1. The manner in which I combine the
40 cylinder E, F, with the knife or cutter o, o, by bringing the knife near to the cylinder so that as it revolves the leather shall be carried by it against the knife and regulating the knife by means of screws so that it shall
45 in combination with the cylinder gage the thickness of leather to be cut.

2. I also claim in combination with this arrangement the steel plate K, the whole being substantially as herein described.

HORACE WHITE.

Witnesses:

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