(No Model.)

A. G. WEBSTER.

LEATHER SPLITTING MACHINE.

No. 347,402. Patented Aug. 17, 1886.

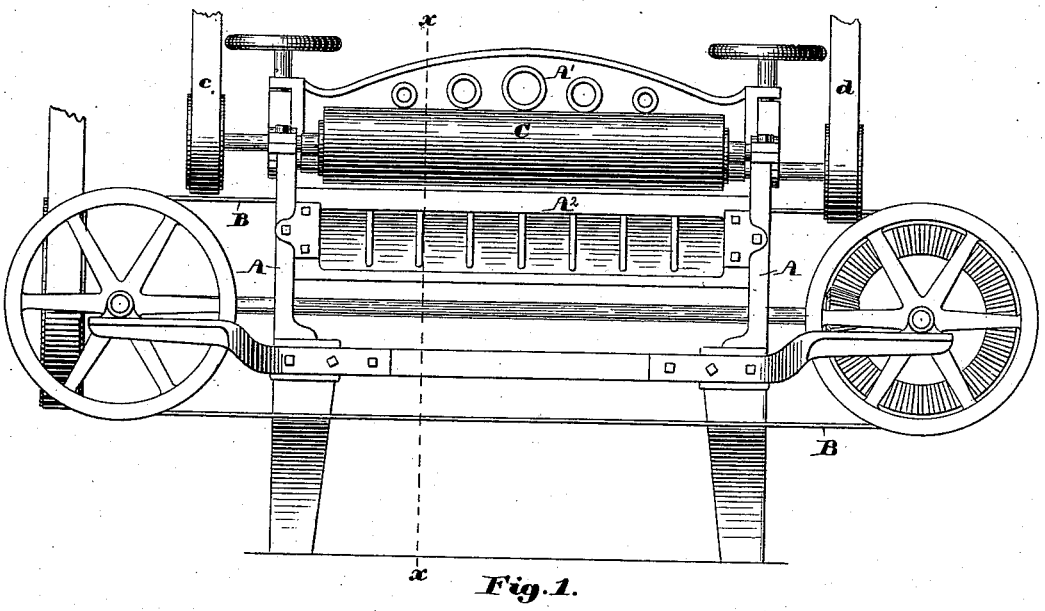

Fig. 1.

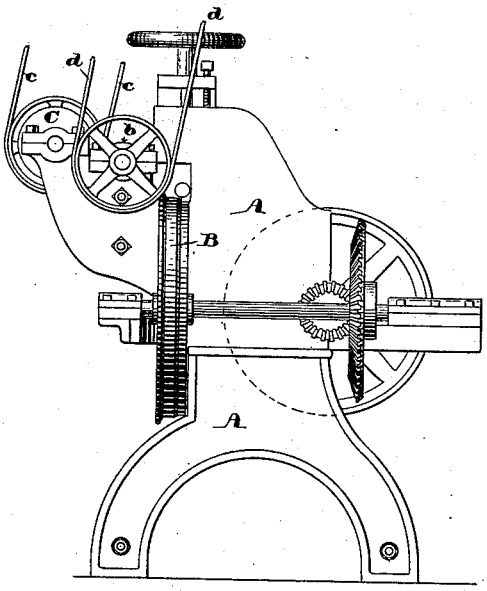

Fig. 2.

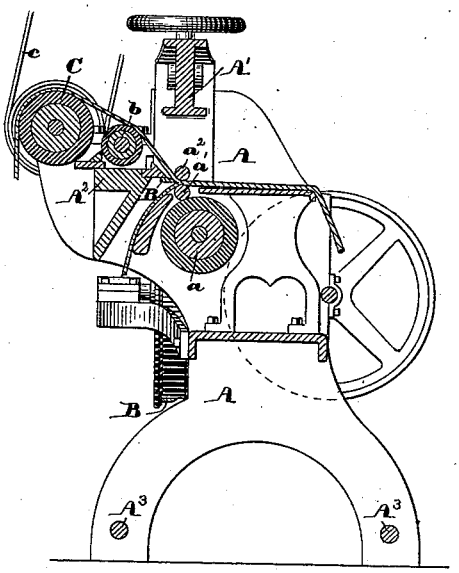

Fig. 3.

Witnesses:
Walter G. Lombard.
Maggie D. O'Neill

Inventor:
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UNITED STATES PATENT OFFICE.

ANDREW G. WEBSTER, OF BOSTON, MASSACHUSETTS.

LEATHER-SPLITTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 347,402, dated August 17, 1886.

Application filed March 1, 1886. Serial No. 193,566. (No model.)

To all whom it may concern:

Be it known that I, ANDREW G. WEBSTER, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Leather-Splitting Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to that class of leather-splitting machines in which an endless or belt knife is use, and particularly to the mechanism for conveying or drawing the leather away from the knife after it has been split, and it is an improvement upon the machine described in Letters Patent No. 288,551, granted to Eustace Cummings, November 13, 1883; and it consists in certain novel arrangements and combinations of parts which will be readily understood by reference to the description of the drawings, and to the claims to be hereinafter given.

Figure 1 of the drawings is a rear elevation of a machine embodying my invention. Fig. 2 is an end elevation, and Fig. 3 is a transverse vertical section, of the same, the cutting-plane being on line *x x* on Fig. 1.

In the drawings, A A are the end frames of the machine connected together by the tie-beams A′ A^2 and the tie-rods A^3.

B is the belt-knife mounted upon pulleys and driven in the usual way, and *a*, *a′*, and a^2 represent the ordinary feed-rolls, by means of which the leather is presented to the action of the knife, all constructed, arranged, and operating in a well-known manner.

It is a well-known fact that great trouble has been experienced with the belt-knife splitting-machine as formerly constructed, on account of the tendency of the leather to sag before reaching the knife, after passing the feed-rolls, the result of which was an uneven thickness of the leather after being split. This difficulty was partially overcome by the employment of a draft-roll *b*, placed in the rear of and above the knife, so as to draw the upper part of the side of leather after being split upward with considerable tension, for the purpose of counteracting the tendency of the leather to sag between the feed-rolls and the edge of the knife. It was found, however, that in order to obtain a satisfactory result with a machine organized as described, it was necessary for the attendant, whose duty it was to take the leather from the machine after it was split, to pull down upon the upper portion of the leather which passed over the roll *b* with considerable force, which, owing to the direction in which said force had to be exerted, and the fact that it had to be exercised during ten hours of every day, rendered the attendants duties very laborious and undesirable. In experimenting to find a remedy for this difficulty, I have found that by placing another and larger roll, C, in suitable bearing at the rear of the roll *b*, in a position to draw the leather from the periphery of the roll *b* at a different angle to that in which it moves between the knife and the roll *b*, said roll C having its periphery composed of soft rubber felt or other suitable material to form a frictional surface, and having power applied thereto by an independent belt, *c*, to revolve it so that its peripheral surface shall move at a speed slightly greater than that at which the peripheral surface of the roll *b* moves, a sufficient tension is obtained upon the upper part of the split side of leather to overcome the tendency of the leather to sag between the feed-rolls and the knife, and thus insure an even thickness of said upper portion of the split skin or side of leather, and at the same time the labor of the attendant is very much lightened, it only being necessary for him to press the leather to closer contact with the roll C along the center or back of the skin or side of leather by placing his hands upon said leather as it is passing over said roll. The rolls C and *b* are driven from pulleys of different diameters mounted upon the same overhead shaft by means of the belts *c* and *d*.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a leather-splitting machine, the combination, with the belt-knife B, the feed and gage rolls *a′* and a^2, and the draft-roll *b*, the roll C, mounted in bearings at the rear of the roll *b*, and mechanism for revolving the roll C independently of the roll *b*, substantially as described.

2. In combination with a belt-knife and feed and gage rolls of a leather-splitting machine, and the draft-roll *b*, located above the level of

the cutting-plane of the knife, the roll C having its periphery covered with rubber or similar frictional material and mounted in bearings at the rear of the roll *b*, with its upper surface in position to draw the leather from the roll *b* at a different angle to the line of draft of said roll *b*, substantially as described.

3. In combination with the belt-knife and feed and gage rolls of a leather-splitting machine and the roll *b*, arranged to draw the leather upward from the knife, the roll C, mounted in bearings at the rear of the roll *b*, with its upper surface in position to draw the leather from the roll *b* at a different angle to the line of draft of said roll *b*, and mechanism to revolve said roll C at a peripheral speed slightly greater than that of the roll *b*, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 24th day of February, 1886.

ANDREW G. WEBSTER.

Witnesses:

N. C. LOMBARD,

WALTER E. LOMBARD.