H. & J. SAUERBIER.

Leather-Splitting Machines.

No. 221,867. Patented Nov. 18, 1879.

Fig. 1.

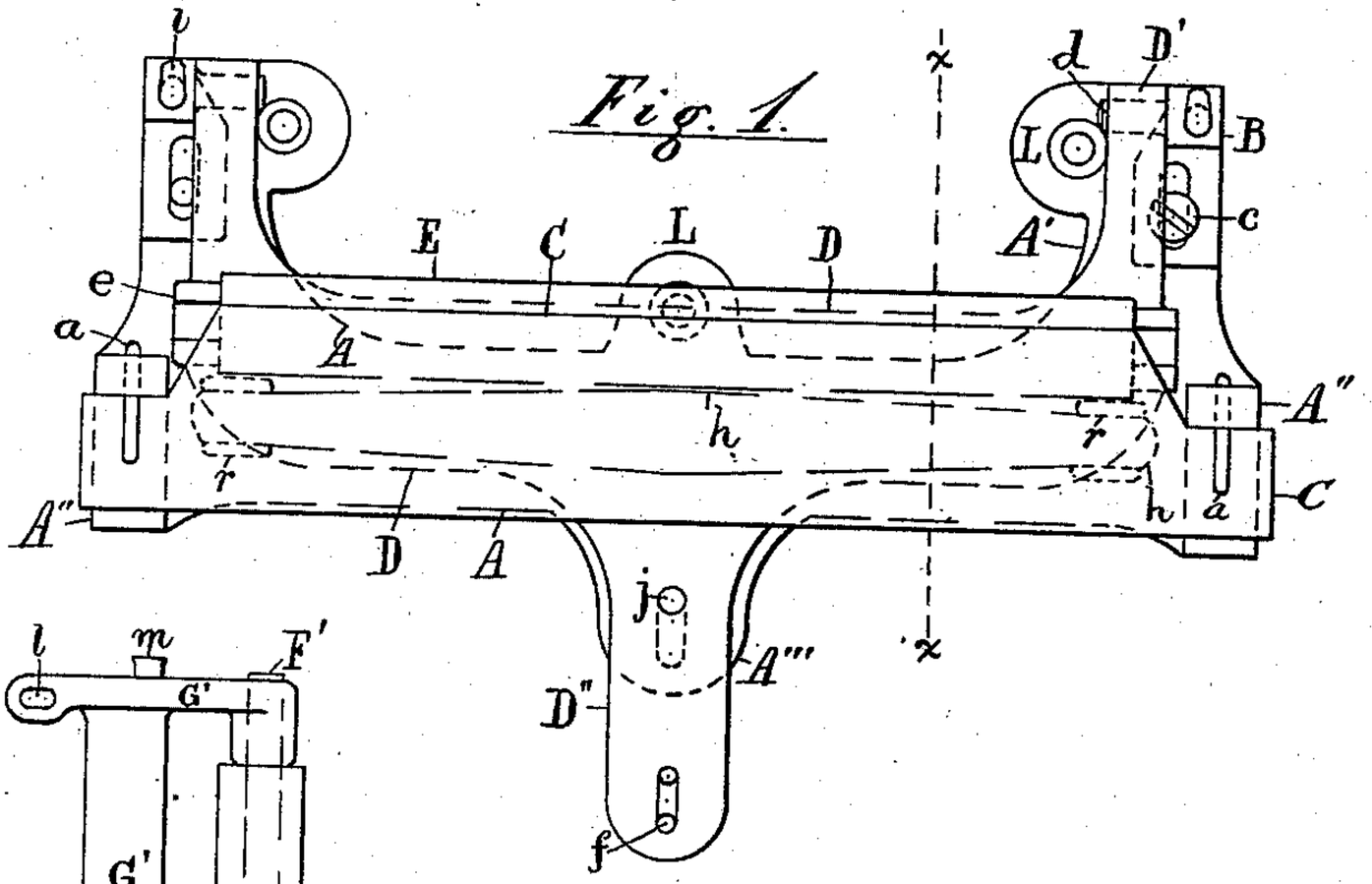
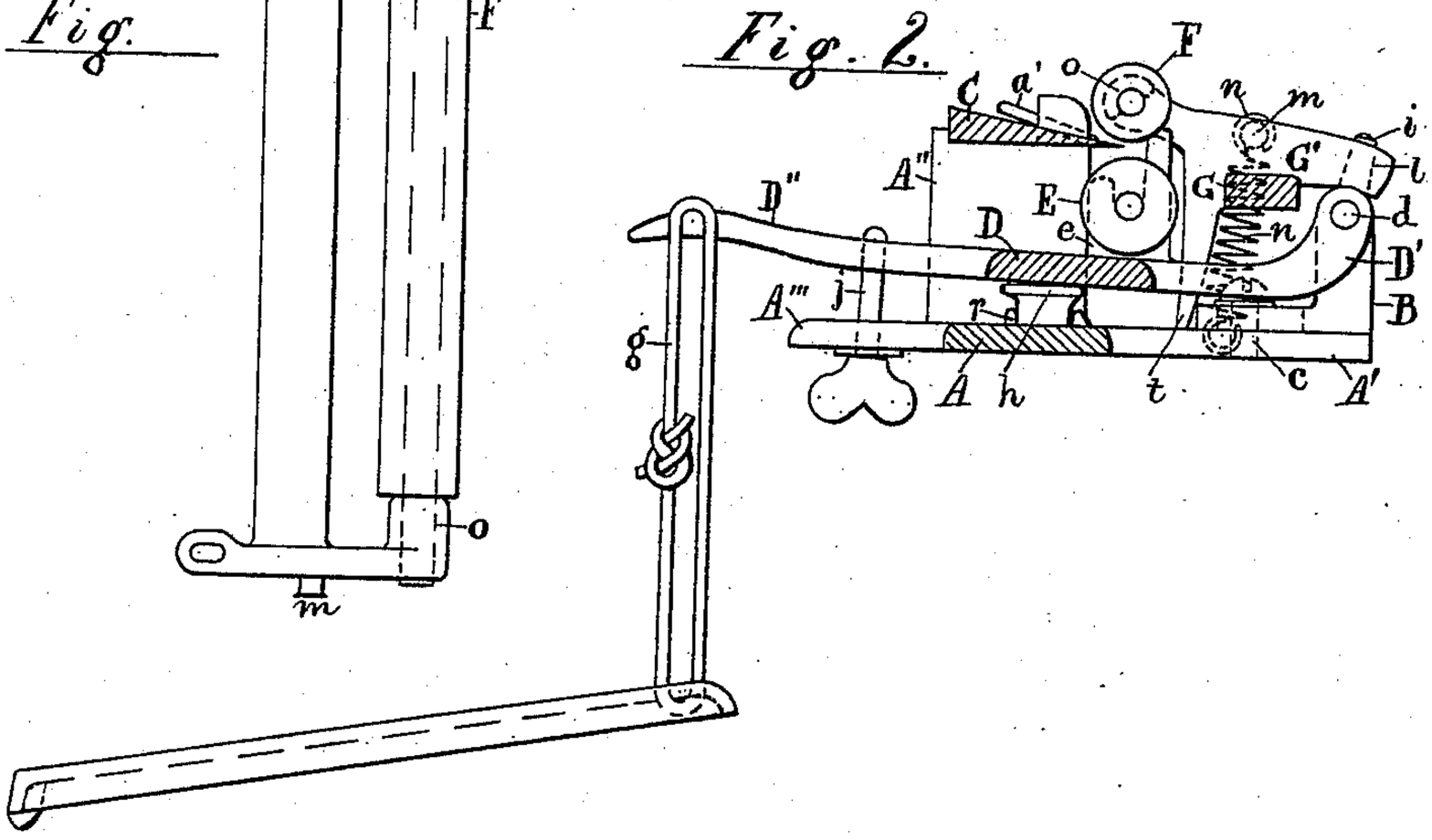


Fig.

Fig. 2.



Attest:

Thos. T. Crane.

Charles A. Pelle

Inventor.

Henry Sauerbier.

Julius Sauerbier.

By O Drake. Atty.

UNITED STATES PATENT OFFICE.

HENRY SAUERBIER AND JULIUS SAUERBIER, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN LEATHER-SPLITTING MACHINES.

Specification forming part of Letters Patent No. **221,867,** dated November 18, 1879; application filed April 14, 1879.

To all whom it may concern:

Be it known that we, HENRY SAUERBIER and JULIUS SAUERBIER, both of the city of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Leather-Splitting Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Our invention relates to an improved construction of leather-splitting machines; and it consists in the construction and combination of certain parts, as will be hereinafter described, and pointed out in the claims.

Figure 1 of the drawings is a plan of the machine, with the pressure-roll and its frame removed. Fig. 2 is a section of the same on the line *x x* in Fig. 1, and Fig. 3 is a plan of the frame for the gage-roll detached.

In Fig. 1 the general shape of the bed A is shown, with two projecting lugs, A′, at the rear, carrying two posts, B, and having cast upon its front corners two standards, A″, for the knife C. The tops of the standards are provided with open rectangular notches, in which the knife is secured by pins *a′*. The posts B are formed with slotted feet, by which they are screwed to the lugs A′ by screws *c*, and are provided at the inner side, near the top, with pivots *d*, on which hang the lugs D′, extending backward from the gage-roll frame D. This frame consists of a bar parallel with and sufficiently below the knife C to carry a metallic roll, E, in bearings *e* formed at its ends.

A projecting arm, D″, extends from the middle of the frame D toward the front of the machine, and is provided with holes *f* for the introduction of a treadle-cord, *g*.

A spring, *h*, of single elliptic form, is arranged beneath the frame D, and presses upon the bed A to keep the gage-roll up against the knife.

To regulate the distance of the roll from the knife, a screw, *j*, is passed through a lug, A‴, extending from A beneath the arm D″ of the roll-frame, and tapped into the arm D″, which can be drawn downward by the treadle to lower the roll E when inserting the leather beneath the knife.

In this machine we propose using an ordinary treadle, which may be connected in any suitable way with the arm or handle D″.

The pressure-roll F is carried just over the edge of the knife by a frame, G, having a cross-bar connecting two levers, G′, both of which are supported at their rear ends by the tops of posts B, the latter having upright pins *i* formed upon them, and the levers having holes *l* provided in them to fit loosely over the pins *i*.

At the middle of each lever, upon the outside, is formed a pin or hook, *m*, to which springs *n* are attached, and secured at their lower ends to the bed A, the front ends of the levers being provided with open sockets *o*, in which revolves the axle F′ of the rubber roller.

To prevent the rubber roll from being drawn against the knife by the springs *n*, each lever is formed with a depending tongue, *t*, the lower end of which touches the bed A, and is filed to just the right length when the machine is constructed.

The operation of the machine is as follows: The gage-roll being set by the screw *j* to the desired distance from the knife, the foot is applied to the treadle, and the roll depressed while the leather is introduced. The leather being then pulled through the machine, the rubber roll keeps the body of it firmly against the roll E, while the knife removes all the surplus, the springs *n* yielding when the rubber is compressed beyond the limit of its elasticity.

The advantages of the construction described consist in the great lightness and strength of the several parts as designed, and the mode in which they are secured together without expensive labor or fitting.

The posts B are also cast with the slots for the screws *c* and the pins *i* and pivots *d*, while the spring is secured under the frame D by ribs *r* upon the bed A, so that the only holes to be drilled in the frame are those for the screws *c* and the pins *a′*.

The bed is also provided with lugs L, cast with screw-holes in them, for securing the same to a table or bench.

We are aware that an elastic roll in this class of machines is not new, and hence make no broad claim to the same.

Having thus described our invention, we desire to claim the same as follows:

1. A leather-splitting machine having a splitting-knife, gage, and feed-rolls, in combination with the bed A and the frame D, constructed and arranged as described, provided with open bearings and pivot-holes, and suspended upon the posts B, substantially in the manner and for the purposes set forth.

2. A leather-splitting machine having a cutting-knife, gage, and feed-rolls, in combination with the frame G, constructed as described, and provided with sockets *o*, holes *l*, and tongue *t*, and with the bed A, having posts B, provided with pins *i*, all arranged to operate substantially as and for the purposes set forth.

3. The combination, in a leather-splitting machine, of the knife, rigidly secured to the frame D, the rubber-covered roll, carried by a frame provided with depending tongue *t*, and hinged or pivoted to posts B, secured to said bed, and susceptible of a horizontal adjustment, the metallic gage-roll, carried by a frame, also hinged to the aforesaid posts B, the screw *j*, and the springs *h* and *n*, all arranged as set forth.

In testimony that we claim the foregoing we have hereunto set our hands and seals this 10th day of April, 1879.

HENRY SAUERBIER. [L. S.]
JULIUS SAUERBIER. [L. S.]

Witnesses:
OLIVER DRAKE,
CHARLES H. PELL.