H. & J. SAUERBIER.

Leather-Splitting Machine.

No. 221,866. Patented Nov. 18, 1879.

Fig. 1.

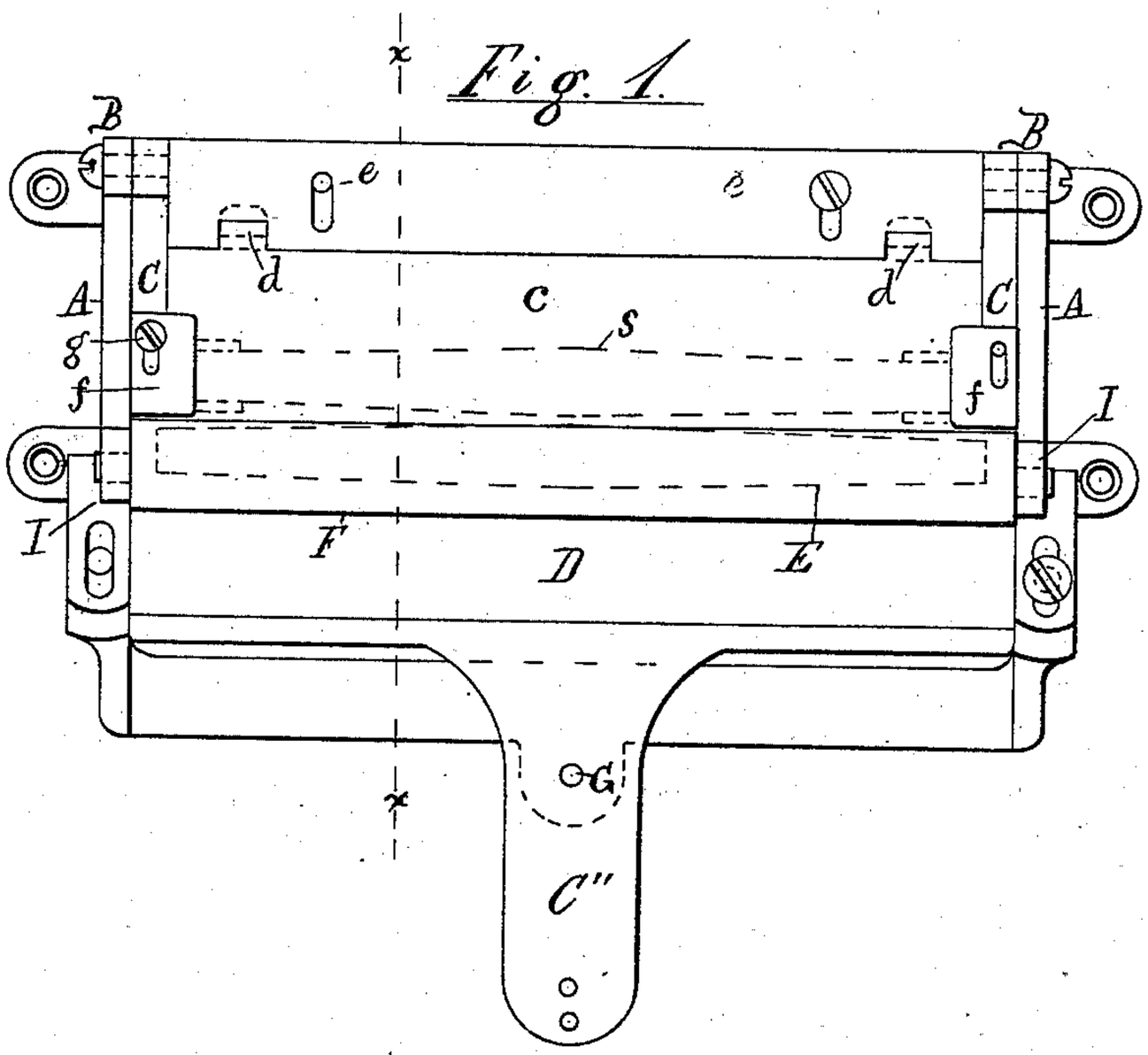
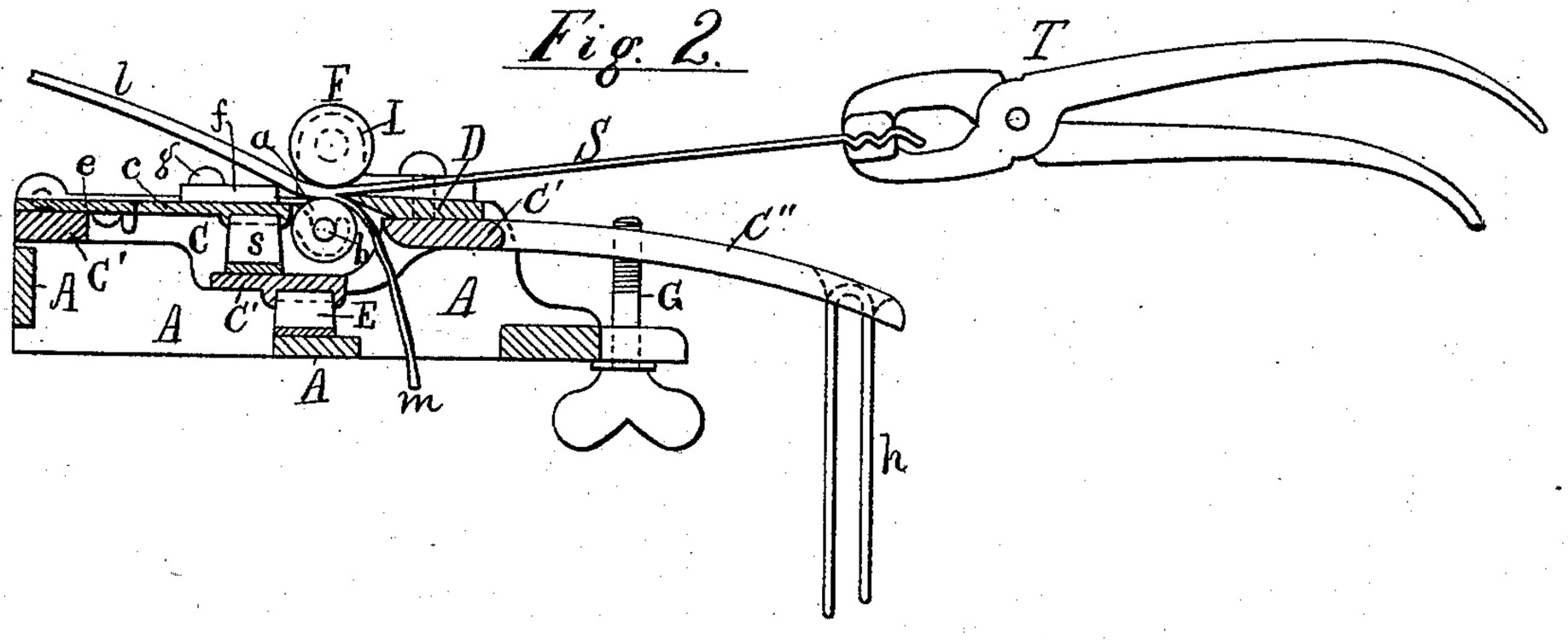


Fig. 2.



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

IMPROVEMENT IN LEATHER-SPLITTING MACHINES.

Specification forming part of Letters Patent No. **221,866,** 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 for Shoemakers' Use; 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 improvement in leather-splitting machines for shoemakers' and others' use; and it consists in the construction and combination of certain parts, as will be first described, and then pointed out in the claims.

Figure 1 of the drawings is a plan of a splitting-machine constructed with our improvements, and Fig. 2 a transverse section on the line *x x* in Fig. 1.

A is the bed of the machine, composed of side plates and cross-bars, all cast in one piece. To the rear corners, at B, are pivoted two levers, C, cast in one piece, with three cross-bars, C′, and the handle C″, the whole forming the knife-carriage.

D is the knife, secured to the front bar, C′, by screws in the usual way. E is a spring, inserted between one of the cross-bars of the bed A and the central cross-bar, C′, of the knife-carriage, to press the knife up toward the gage-roll F; and G is a gage-screw to set the knife at any desired distance from the roll F. I are the bearings of the roll F, secured to the top of frame A, and *a* is the india-rubber pressure-roll, mounted on a shaft, *b*, which is carried by a spring-plate, *c*. The spring-plate *c* is connected at *d* to the rear cross-bar, C′, of the knife-carriage, the cross-bar having a slotted plate, *e*, first secured to it to form a hinge, by which means the rubber roll can be set at any desired position in relation to the edge of the knife.

A spring, *s*, is inserted between the cross-bar C′ and the under side of spring-plate *c*, to keep the rubber roll up against the gage-roll. To limit its upward movement, the spring-plate is provided on top with ears *f*, through which screws *g* are inserted in the tops of the levers C.

The handle C″ of the knife-carriage projects from the front of the machine, and is cast with holes to receive a cord or thong, *h*, to connect the knife-carriage with a treadle, by which the knife may be depressed when inserting the leather *l* under the gage-roll. A pair of tongs, T, is shown attached to the split S, the balance of the leather *m* falling through the open bottom of the bed or frame A.

The use of the rubber roll presents great advantages over the metallic pressure-roll in ordinary use, as it insures a perfectly uniform thickness of the leather when split, and entirely prevents the knife from running out of the leather or cutting through it by holding the same closely against the gage-roll F, whatever variations may occur in the same piece of leather.

To secure these results it is not necessary that the rubber roll should be placed below; but the knife and gage-roll may be inverted, as in some hand splitting-machines, and the rubber roll placed on the top.

We are aware that an elastic roller has been used in a machine for splitting hides in place of a solid bearing-bed, and also to press the hide down on a screw-roller. We do not therefore limit ourselves to the precise arrangement of the rubber roll herein shown, but claim the same in the following manner:

1. The herein-described knife-carriage, pivoted at B to the rear corners of the frame A, in combination with the gage-roll secured upon the top of frame A, and the gage-screw inserted through the front of the frame A, and handle C″ of pivoted carriage, and for the purpose herein set forth.

2. The leather-splitting machine, constructed with stationary gage-roll F, hinged knife-carriage adapted to be adjusted by gage-screw G, and pressure-roll *a*, carried by the spring-plate *c*, hinged upon the knife-carriage, substantially as and for the purpose set forth.

3. In a leather-splitting machine, the frame A, pivoted knife-carriage, cross-bar C′, springs E S, hinged spring-plate *c*, levers C C, rolls

F and *a*, and knife, all constructed and adapted for operation as herein specified.

4. The combination, in a leather-splitting machine, of the knife carried in a hinged frame, the elastic roll carried in a frame hinged to the said knife-carrier, the horizontally-adjustable gage-roll F, and the springs E and S, all arranged with relation to each other, and operating as herein specified.

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.