

(No Model.)

H. K. WAGG & A. J. SHAW.
Leather Stripping Machine.

No. 234,094.

Patented Nov. 2, 1880.

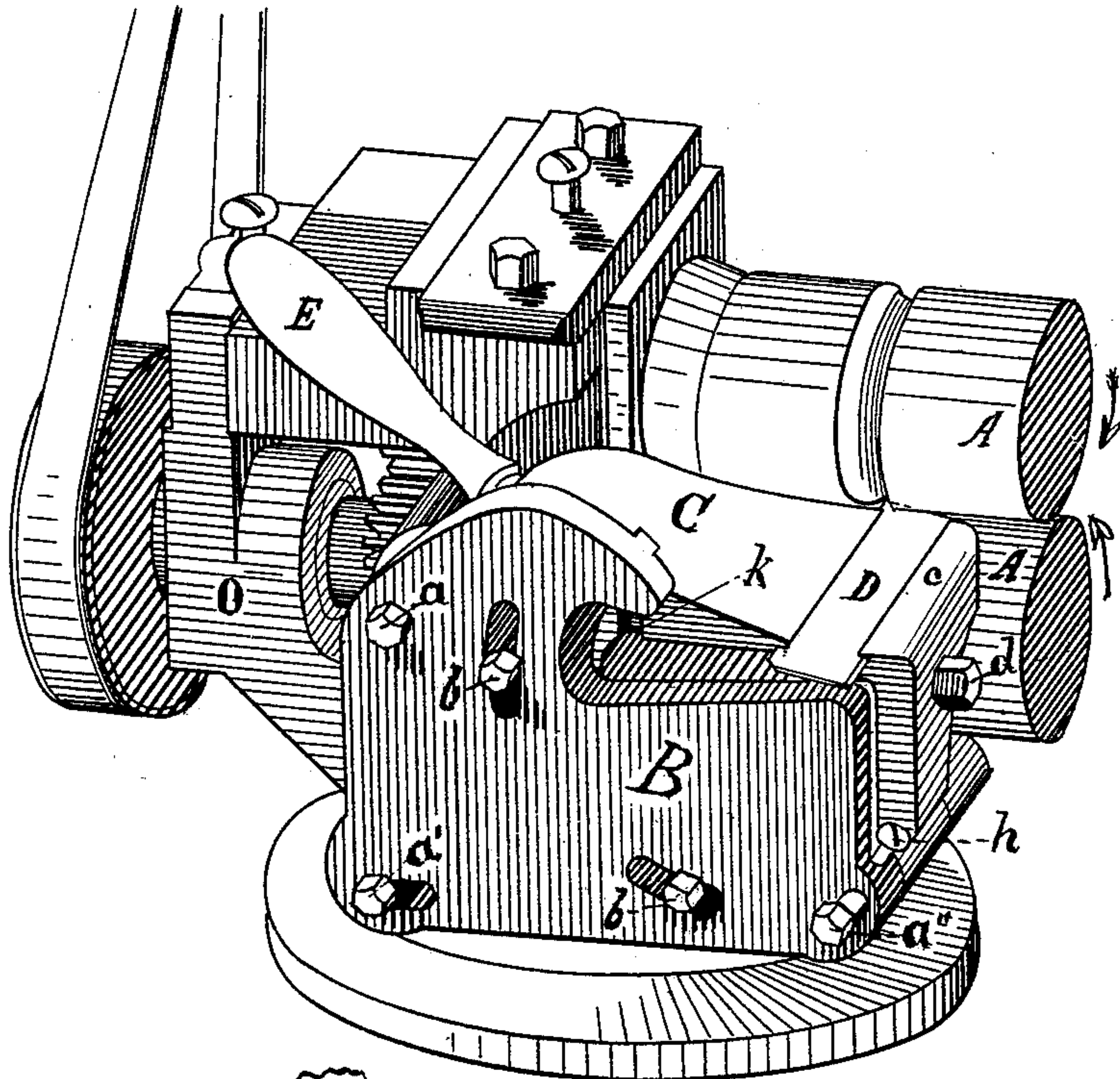


Fig. 1.

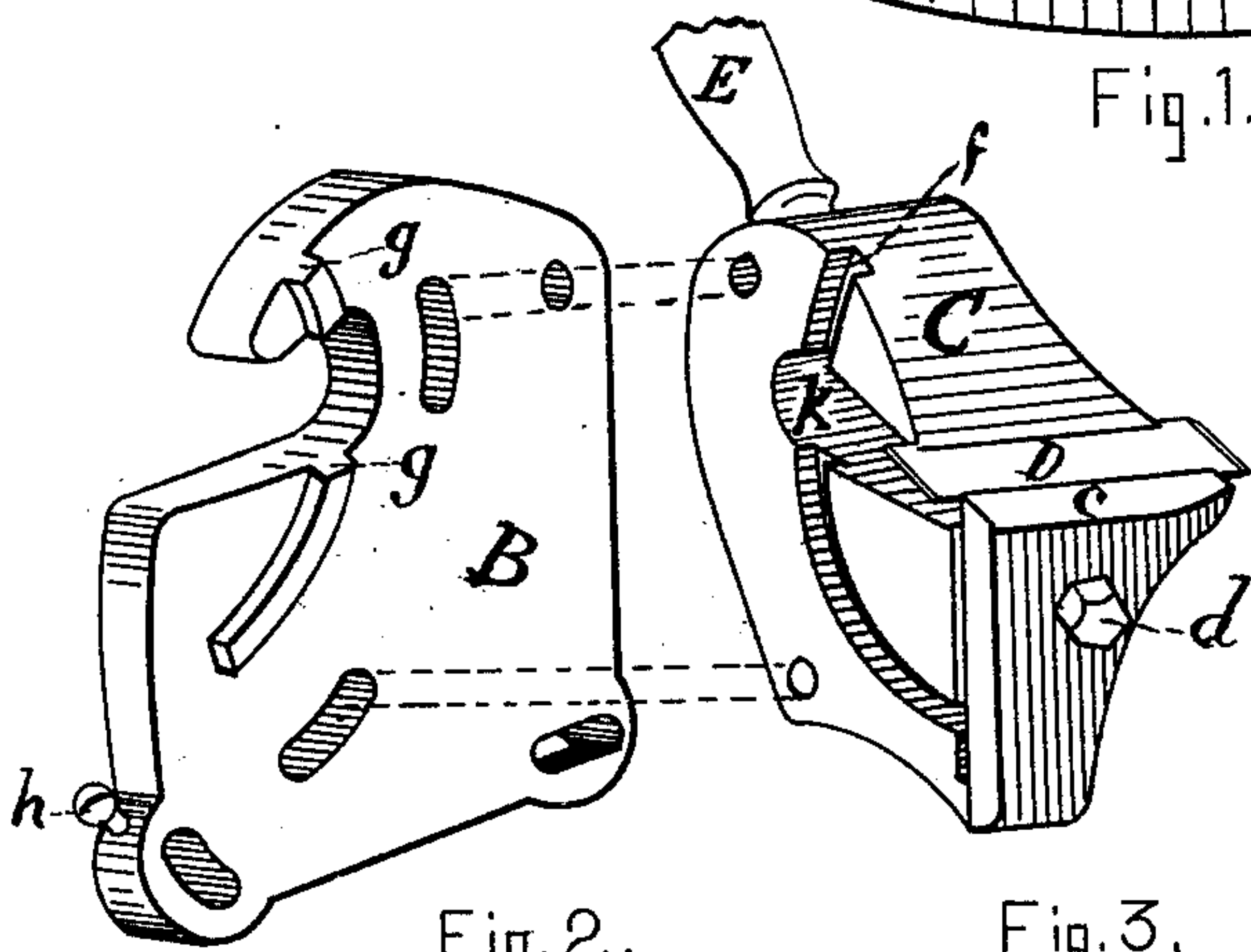


Fig. 2.

Fig. 3.

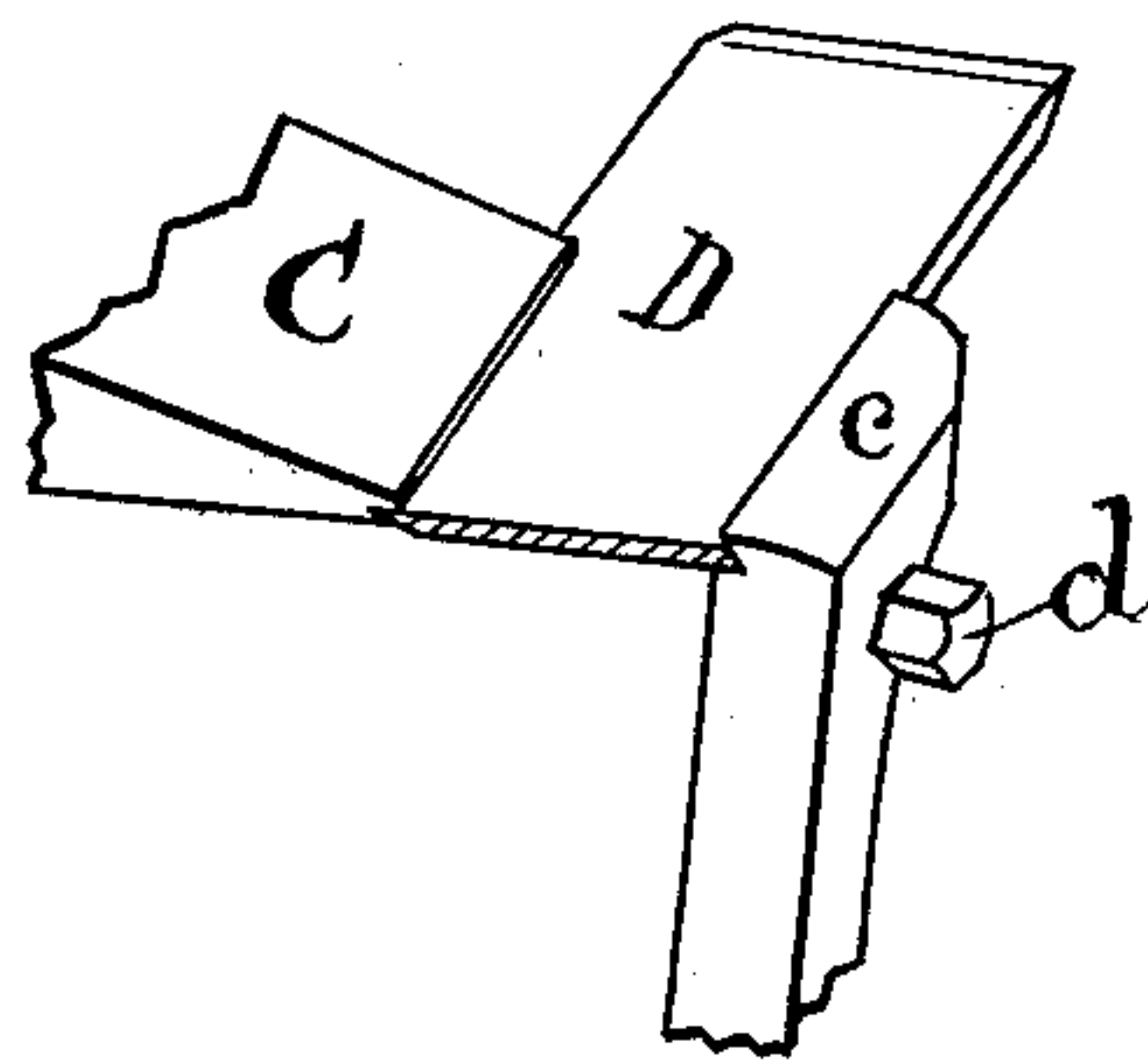


Fig. 4.

Witnesses:
James H. Williams
J. E. Horn

Inventors:
Hartwell K. Waggoner
Alton J. Shaw
per Stephen Moore
Attorney

UNITED STATES PATENT OFFICE.

HARTWELL K. WAGG AND ALTON J. SHAW, OF AUBURN, ASSIGNORS TO
MOUSAM MANUFACTURING COMPANY, OF KENNEBUNK, MAINE.

LEATHER-STRIPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 234,094, dated November 2, 1880.

Application filed July 15, 1880. (No model.)

To all whom it may concern:

Be it known that we, HARTWELL K. WAGG and ALTON J. SHAW, both of Auburn, in the county of Androscoggin and State of Maine, have invented a new and useful Improvement in Machines for Stripping Leather, of which the following is a specification.

Our invention relates to that class of leather-stripping machines which are adapted to divide leather or leather-board into strips with ready-beveled edges, and which operate by forcing the material against a stationary knife by a pair of feed-rolls or equivalent device.

The object of our invention is to provide means for holding the knife rigidly in any required position, to allow ready adjustment of the same, and to give an unobstructed passage for the parts of the divided material from the edge of the knife out of the machine.

Our invention consists in the combination, with a pair of feed-rolls, of a peculiarly-shaped block, adapted to hold a knife formed of a thin rectangular plate of steel in such a manner that the divided sheet of material may pass out of the machine with but slight deflection from the line of direction in which it entered unobstructed by the knife-holding devices; and our invention consists, also, in the combination, with feed-rolls, of a knife-holding device movable about an axis which coincides with a line passing longitudinally through or near the center of the knife, and adapted to adjust the cutting-edge of the knife to any desired angle with the axes of the rolls between which it is interposed; and, further, of means for so moving such knife-holding device that the knife-edge may be adjusted as to its relative proximity to either roll without materially disturbing its angularity with the axes of said rolls.

In the accompanying drawings, in which similar letters of reference indicate similar parts, Figure 1 is a perspective of a machine embodying our invention. Fig. 2 is a view of the plate B removed from the machine, showing its inner side; Fig. 3, a view of the knife-holding block, also removed from the machine, and showing the side adjacent to the inner side of the plate B; and Fig. 4, an enlarged view of the knife, showing the manner of holding the same.

In a suitable frame, O, are mounted a pair of feed-rolls, A A, geared together so as to run in opposite directions, as indicated by the arrows, and adapted to feed an interposed sheet of material in the direction of the movement of their adjacent surfaces.

B is a plate of metal bolted to bosses projecting from the frame of the machine by the bolts *a a' a''*. These bosses hold the plate B at a sufficient distance from the rolls A A to allow the interposition of a block, C, which is held to the plate B by the bolts *b b*, which are tapped into the block C and pass through slots in the plate B, as shown.

D is the knife, which is a thin rectangular plate of steel having one of its ends which is adjacent to the rolls sharpened to a cutting-edge, and held by its longer edges between a projecting portion of the block C and an auxiliary piece, *e*, which is bolted to the block C by the bolt *d*. The longer edges of the knife D are beveled, as shown in Fig. 4, and rest in grooves, the bevel on the one edge being opposite to that on the other, so that the lower side of the knife is flush with the part of the block C supporting it on the left, as viewed in the drawings, and the upper side flush with the auxiliary block *e*, which holds it on the right. A circular groove, *f*, is made in the block C, on the side adjacent the plate B, and a corresponding fin or projection, *g*, on the said plate fits into said groove, both fin and groove being arcs of a circle, of which the center is at or near a line passing longitudinally through the center of the knife D. Thus it will be seen that by loosening the bolts *b b* the slots in the plate B, through which they pass, will allow the block C to be partially rotated (being guided in its movement by the pin and groove mentioned) about a central axis, which coincides with the line passing longitudinally through or near the center of the knife D, and thus permit its cutting-edge to be adjusted to any desired angle with the axes of the rolls A A without changing the position of its center. A handle, E, is attached to the block C for effecting this movement. Two of the bolts, *a' a''*, which hold the plate B to the frame of the machine, pass through holes in the said plate, which are enlarged in such a

direction that when the bolts are loosened the plate B may be moved about the bolt *a* as an axis, thus elevating or depressing the block C and the knife D without changing their relative position. A small set-screw, *h*, Fig. 1, passing through the plate B from its edge to the hole through which passes the bolt *a''*, and pressing upon said bolt, serves to make this adjustment with delicacy.

10 The rolls A A may be grooved circumferentially, so as to allow the cutting-edge of the knife to be set at any desired angle with their parallel surfaces without withdrawing it from between them.

15 In the operation of the machine, the feed-rolls being revolved in the direction indicated, the sheet of material to be divided is fed between them from the side opposite the knife, and being gripped by the rolls is forced against the edge of the knife D, which is set closely between the rolls and at such an angle with their adjacent parallel surfaces as will divide the material on the required bevel. The divided strip or portion to the left of the knife, as viewed in the drawings, passes below the knife and through the open space *k* in the block C, while the other part of the material passes over the knife, and each part is allowed to pass from the cutting-edge of the knife out of the machine unobstructed by the knife-holding devices.

What we claim is—

1. In a leather-stripping machine, the combination, with a knife, D, of a knife-holding mechanism composed of two pieces, C *c*, arranged to gripe and hold the knife D rigidly by its edges between them, one of such pieces

being substantially flush with the upper and the other with the lower side of the knife, as shown, the pieces C *c* being held rigidly to each other and to the knife, and jointly rotative about an axis substantially corresponding with a line drawn longitudinally through the center of the knife D, as and for the purposes specified.

2. In a leather-stripping machine, the combination, with the feed-rolls A A, of a knife-holding device consisting of the block C, with its auxiliary clip *c*, adapted to hold the knife D along its edges, and adapted also to be so held and guided itself as to be only movable about an axis which coincides with a line passing longitudinally through or near the center of the said knife, substantially as herein set forth.

3. In combination with the feed-rolls A A, the knife-supporting block C, with its auxiliary clip *c*, and the movable plate B, all arranged substantially as described.

4. In a leather-stripping machine, a knife-supporting device composed of the rotatable block C, supported by bolts *a a' a''* to the plate B, and having the auxiliary piece *c* held by the bolt *d*, as shown and described.

5. In a leather-stripping machine, a rotatable knife-holding block C, guided in its rotary movement by a groove, *f*, sliding upon a fin, *g*, upon a supporting-plate, B, as herein set forth.

HARTWELL K. WAGG.
ALTON J. SHAW.

Witnesses:

GEORGE C. WING,
WILLIAM JENKINS.