(No Model.) 2 Sheets—Sheet 1.

W. H. KIMBALL.

LEATHER SKIVING MACHINE.

No. 458,535. Patented Aug. 25, 1891.

Fig. 1.

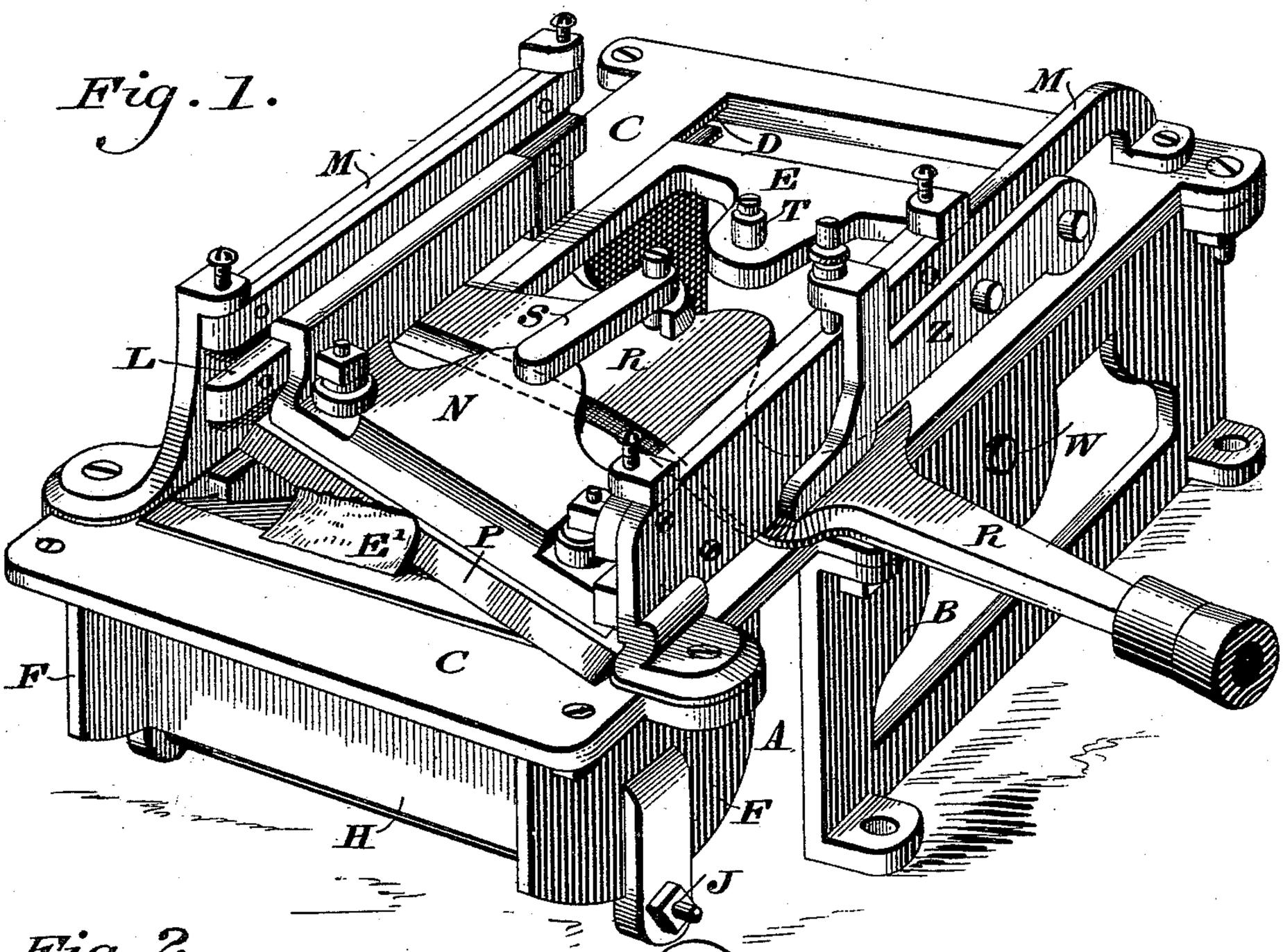
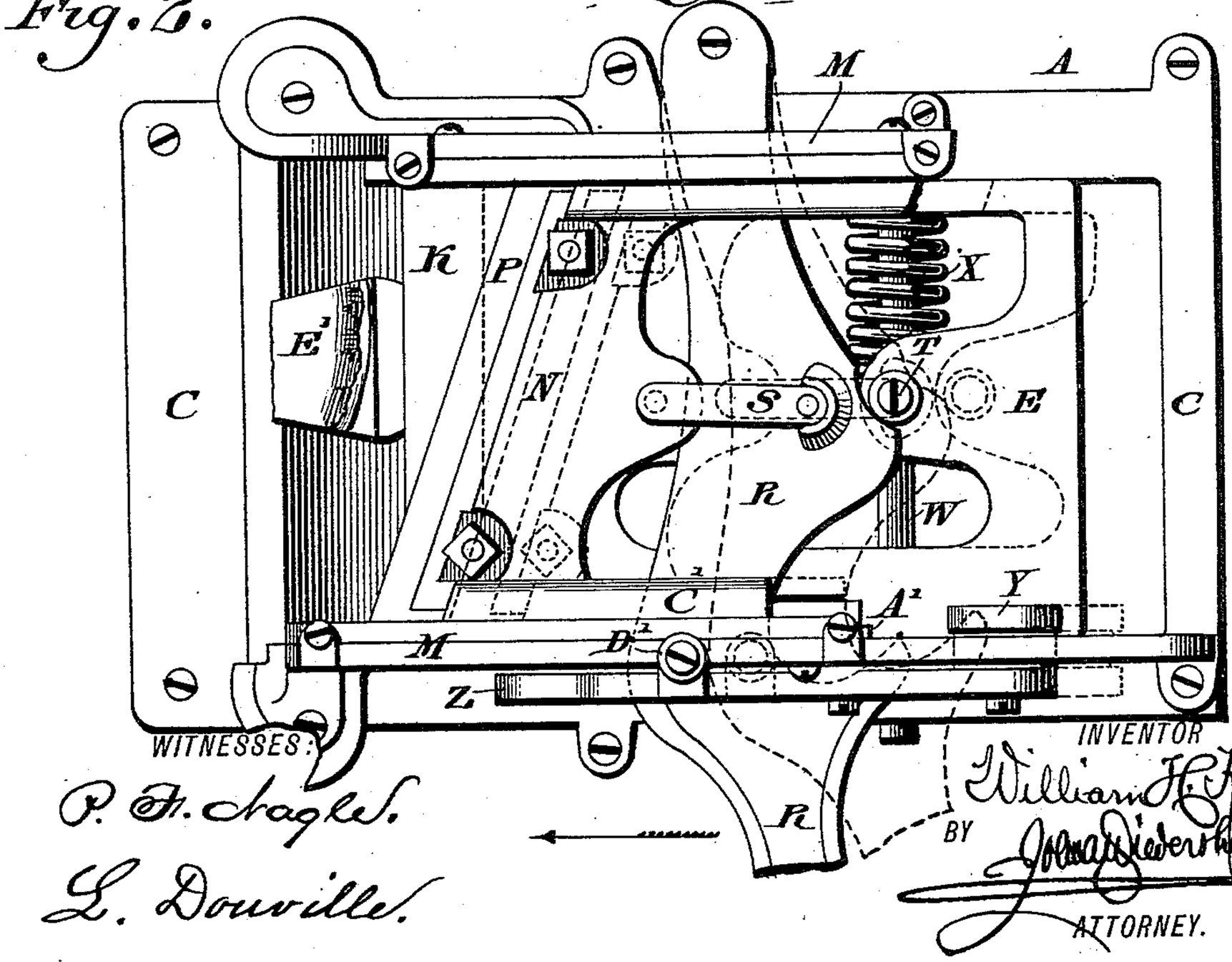


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

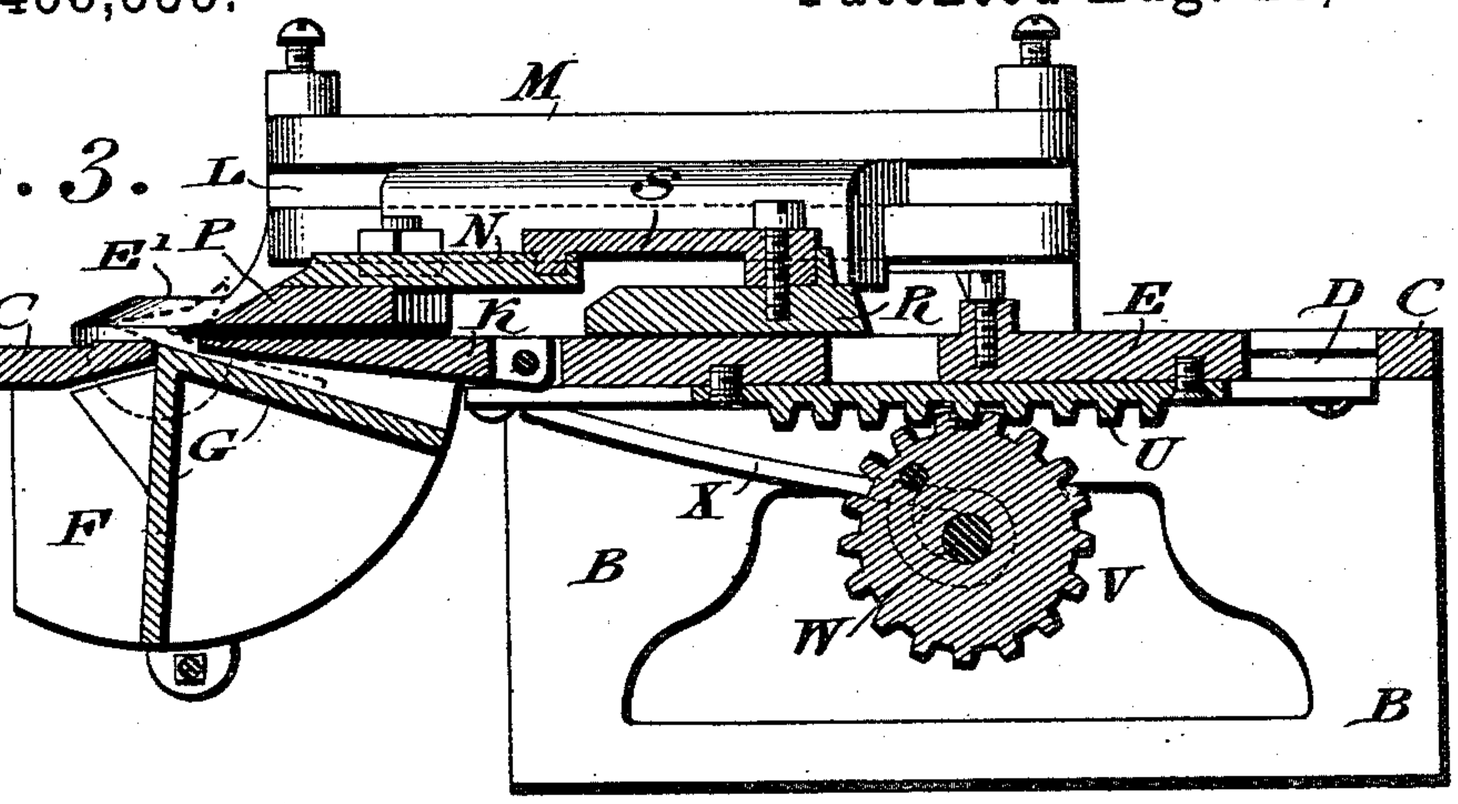


Fig. 4.

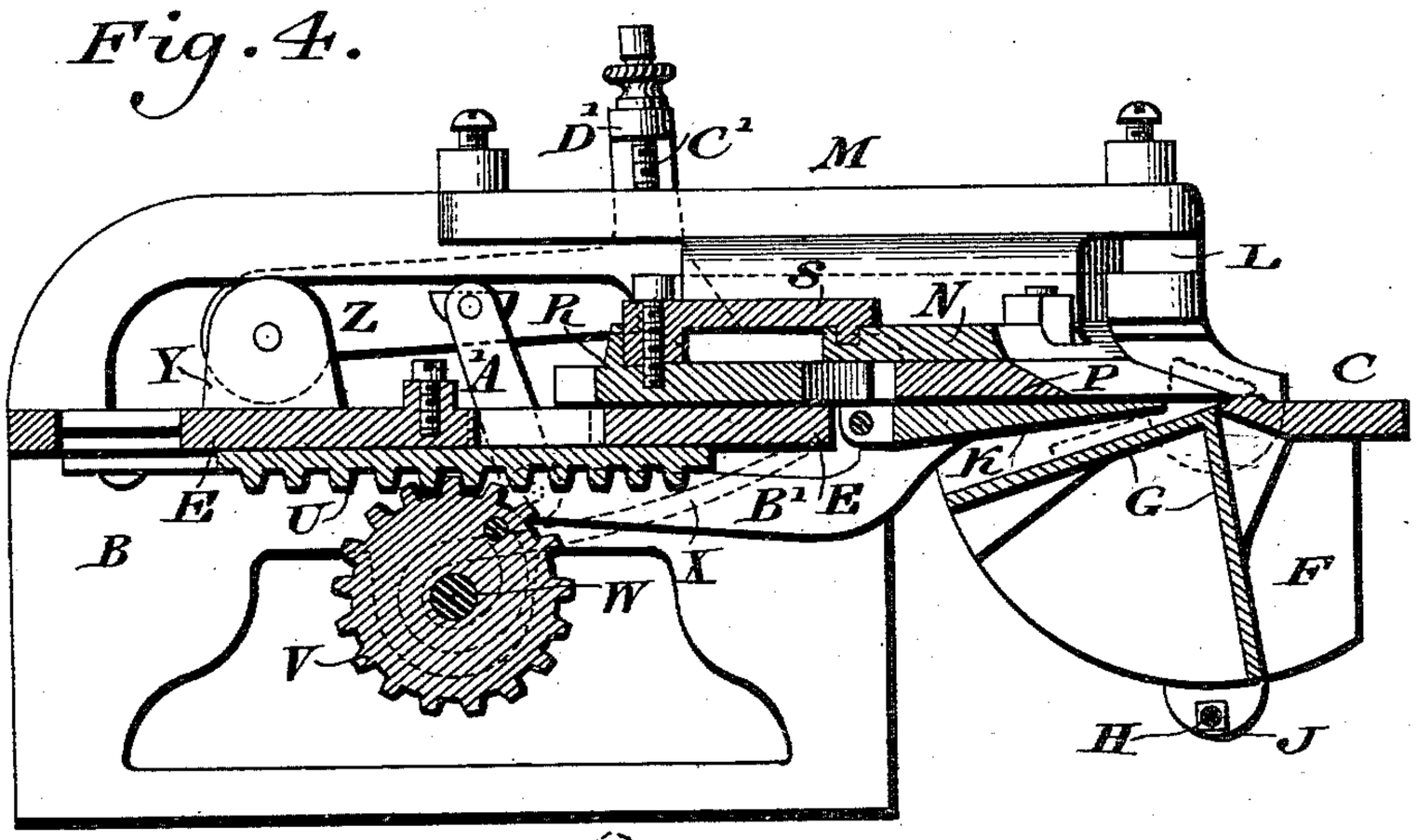
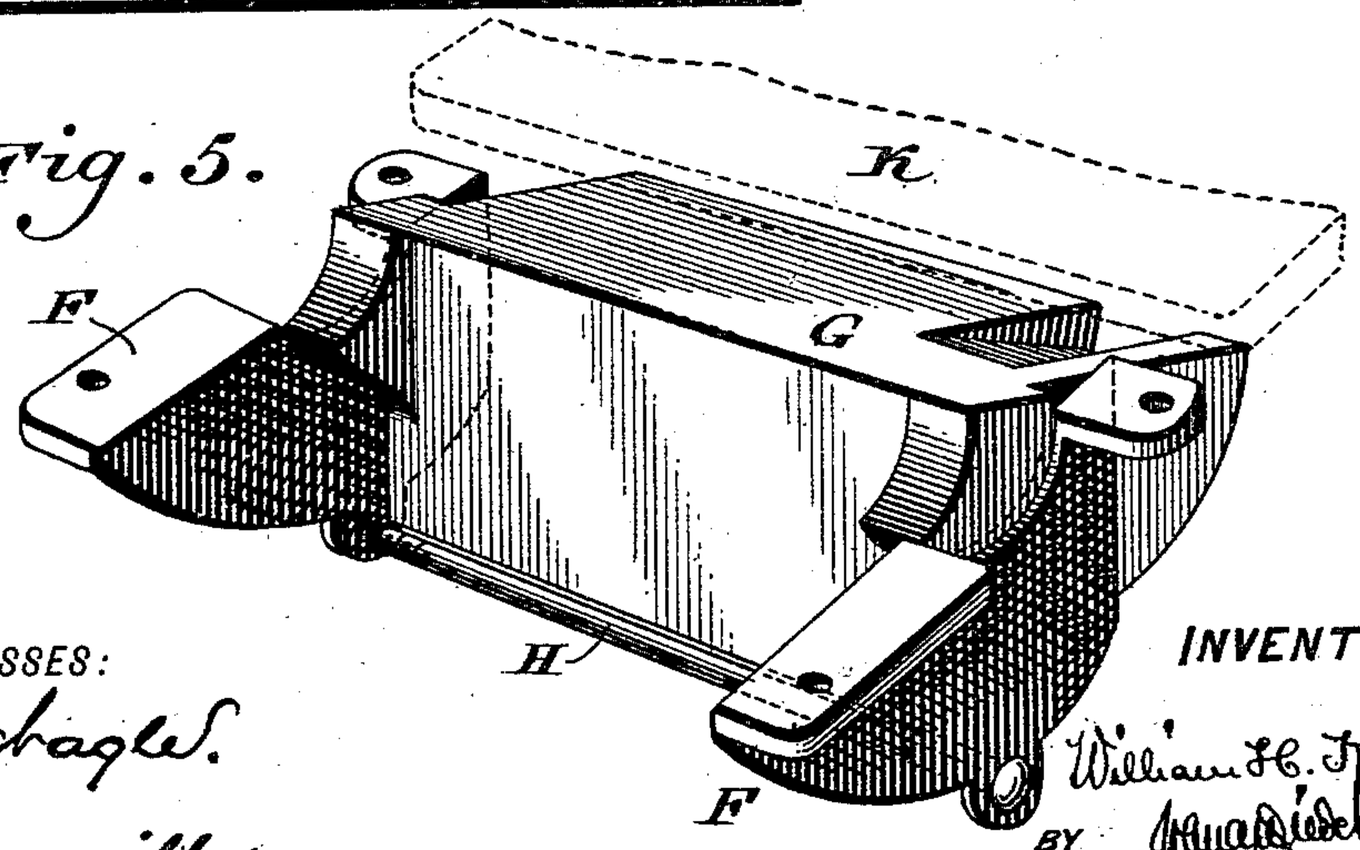


Fig. 5.



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LEATHER-SKIVING MACHINE.

SPECIFICATION forming part of Letters Patent No. 458,535, dated August 25, 1891.

Application filed March 14, 1891. Serial No. 385,047. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. KIMBALL, a citizen of the United States, residing in the city and county of Burlington, State of New Jersey, have invented a new and useful Improvement in Leather-Skiving Machines, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in leather-skiving machines; and it consists, first, of a novel clamping device for holding in place the material to be operated on.

It further consists in an adjustable table on which the material is placed.

It further consists in the combination of parts hereinafter described.

Figure 1 represents a perspective view of a machine embodying my invention. Fig. 2 represents a top view of the same. Fig. 3 represents a vertical section on line *x x*, Fig. 2, the knife being in contact with the material to be cut. Fig. 4 represents a vertical section on the same line as in Fig. 3, looking from the opposite side, the material being clamped on the table and the knife not in contact therewith. Fig. 5 represents a perspective view of the adjustable table with its supports.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates the frame of the machine, consisting of the uprights or standards B, adapted to be secured to a suitable support, so as to be stationary thereon, and a bed C, firmly fastened to said standards and provided with the horizontally-extending ways D, in which is guided a movable plate E.

To one end of the frame A are secured the depending plates F, in which is journaled a table G, formed of two plates connected with each other at an angle and having their ends in close proximity to the plates F. A headed rod H, passing through said plates F and provided with a screw-threaded end and a nut J, serves to clamp said plates F against the ends of the table G, so as to hold the said table in fixed position when adjusted to the proper angle.

To one end of the plate E is hinged or pivoted a clamping-plate K, which extends substantially in the same plane as the plate E, and has its front under edge beveled, so as to be adapted to take a firm hold of the material to be operated on, which latter is placed between it and the top of the table G.

Movable in the ways L of the extensions M on the bed C of the frame is the knife or blade holding frame N, the knife P being secured thereto in a direction oblique to the sides of the frame A.

On one side of the frame A is pivoted a lever R, which extends across the bed C above the plate E and in rear of the frame N. The said lever is pivotally connected to a bar S, which is also pivotally connected with the plate N. An upwardly-projecting portion or stud T on the plate E in the path of travel of the lever R enables the said lever to move the said plate E with the clamping-plate K away from the table G.

To the under side of the plate E is fastened a rack U, which meshes with a gear-wheel V, secured on the shaft W, the latter being journaled in the standard B of the frame. A coil-spring X, encircling said shaft and having one end fastened to the said wheel V and the other end bearing against the frame A, normally keeps the clamping-plate K in close proximity to or in contact with the table G.

Pivoted to a lug Y on the plate E is an arm Z, having its free end in the path of travel of the lever R in its forward movement, so as to be lifted thereby and thus oscillate a bar A′, pivoted thereto, and pivotally connected with an arm B′ on the under side of the clamping-plate K, so as to depress or lower said plate, binding the piece of material more firmly between it and the table G.

To adjust the play or oscillating movement of the clamping-plate K, the front end of the arm Z is supported on an extension M by means of a screw C′, which works in a threaded lug D′ on the said arm and has its point bearing on an upper face of the said extension M.

In operating the device the table G is first adjusted so that the piece of material E′ to be placed thereon, and which is to be skived, will be at the proper angle to make the cut desired. The material is then placed on the said table, the clamping-plate K being drawn back by means of the lever R, so that the ma-

terial may be inserted between the table and the said plate. When the lever is released, the action of the coil-spring X actuates the plate E, so that the plate K will hold the inserted material in place. As the lever is brought forward, the arm X is raised and the plate K depressed slightly in advance of the knife reaching the material, which is thus reliably held during the skiving. The further forward movement of the lever brings the knife in contact with the material for skiving the same at the required angle. When the lever is drawn back, so as to bear against the stud T of the plate E, a further movement thereof will so move the plate E as to release the plate K from the piece of material E', which latter will then drop from the table to the floor or any suitable receptacle. It will be noticed that by having the knife oblique to the sides of the machine or to the path of travel of the holder the cut will be in the nature of a draw, so that less power is required to skive the leather. The ways of the knife-holder are adjustable on the extension M by means of screws, so as to permit the adjustment of the knife relative to the bed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A leather-skiving machine having a frame, a table adjustable in an arc of a circle at one end thereof, a pivoted reciprocating clamping-plate underneath the knife, a spring bearing against said plate, and a reciprocating adjustable cutting-blade, said parts being combined substantially as described.

2. A leather-skiving machine having a frame, a table adjustable in an arc of a circle, for holding the material to be operated on, a clamping-plate, a knife-holding frame with knife, mechanism, substantially as described, for keeping said clamping-plate normally in contact with said table; and a lever adapted to operate said knife-holding frame and also withdraw said clamping-plate from said table, said parts being combined substantially as described.

3. In a leather-skiving machine, a frame, a knife, a table adjustable in the arc of a circle, a vertically-adjustable clamping-plate beneath the knife, a lever, and a pivoted arm operated by said lever and connected with an arm on the clamping-plate, said parts being combined substantially as described.

4. In a leather-skiving machine, a frame, a table adjustable in an arc of a circle, a plate movable thereon and with a stud thereon, a clamping-plate hinged to one end of said first plate and having an arm thereon, a knife-holder with knife, a lever connected with said knife-holder and adapted to bear against the stud on said plate, and a pivoted arm connected with the arm of the clamping-plate and operated by said lever, so as to lower said clamping-plate, said parts being combined substantially as described.

5. A frame, a plate movable in ways thereon and having a projecting portion or stud, a clamping-plate hinged or pivoted to one end of said first plate, a table adjustable in an arc of a circle for holding thereon the material to be cut, a knife-holder movable in ways on the frame, a lever pivoted to the frame, a bar pivotally connected with the lever and knife-holding frame, and an arm pivoted to the first plate and connected by an arm to the arm of the clamping-plate, said parts being combined substantially as described.

6. In a leather-skiving machine, a frame with plates depending from the sides at one end thereof, a table adjustable in the arc of a circle and composed of two plates connected together at an angle and journaled on said depending plates, a knife, and means, substantially as described, for clamping said depending plates against said table to hold the latter in adjusted position, said parts being combined substantially as described.

7. A frame, a table adjustable in an arc of a circle hinged to said frame, a plate movable in guides on said frame, a clamping-plate hinged to said movable plate, a knife-holder with knife movable in ways on the frame, a lever pivoted to the frame and connected by a bar with the knife-holder, a pivoted arm connected by a bar with an arm on the clamping-plate, and means, substantially as described, for normally keeping the clamping-plate in close proximity to or in contact with said table, said parts being combined substantially as described.

8. A frame, a table adjustable in an arc of a circle supported thereon, a plate movable in ways on said frame and having a clamping-plate connected therewith, an adjustable knife operating in a direct line, a rack on said movable plate, a shaft suitably journaled having a gear-wheel thereon meshing with said rack, and a spring connected with said wheel and adapted to normally keep said clamping-plate in close proximity to or in contact with said table, said parts being combined substantially as described.

9. A leather-skiving machine having a frame with a table adjustable in an arc of a circle mounted on projecting plates at one end thereof, a plate movable in ways on said frame and having a projecting portion or stud, a clamping-plate hinged to said movable plate and having an arm, a knife-holder with knife, a lever connected by a bar with said knife-holder and adapted to bear against the projecting portion of the movable plate, a pivoted arm connected by a bar to the arm of the clamping-plate, a rack on the movable plate, a gear-wheel meshing with said rack, and a spring connected with said wheel, said parts being combined substantially as described.

10. In a leather-skiving machine, a table adjustable in an arc of a circle for holding the material to be operated on, consisting of two plates connected together at an angle and having journals whereby the said table

may be adjusted at different angles to the plane of the bed of the machine, and a knife movable over said table, substantially as described.

11. A frame, a knife supported thereby, an oscillating clamping-plate with arm, a pivoted arm with a threaded lug, a screw in said lug with point bearing against said frame, a bar connecting said pivoted arm and the arm of the clamping-plate, and means for operating said pivoted arm, said parts being combined substantially as described.

12. A frame, a pivoted clamping-plate, an arm pivoted to a suitable support and having mechanism connected therewith and to said clamping-plate, so that the movement of said arm operates said plate, and mechanism, substantially as described, connected with the said pivoted arm for adjusting the length of its movement, and a knife, said parts being combined substantially as described.

13. A leather-skiving machine having a movable knife-holder with side ways on an extension of the frame above the plane of the holder in which it is guided, said ways being adjustable on the frame of the machine, and a knife carried by said holder, substantially as described.

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Witnesses:

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A. P. JENNINGS.