

No. 671,255.

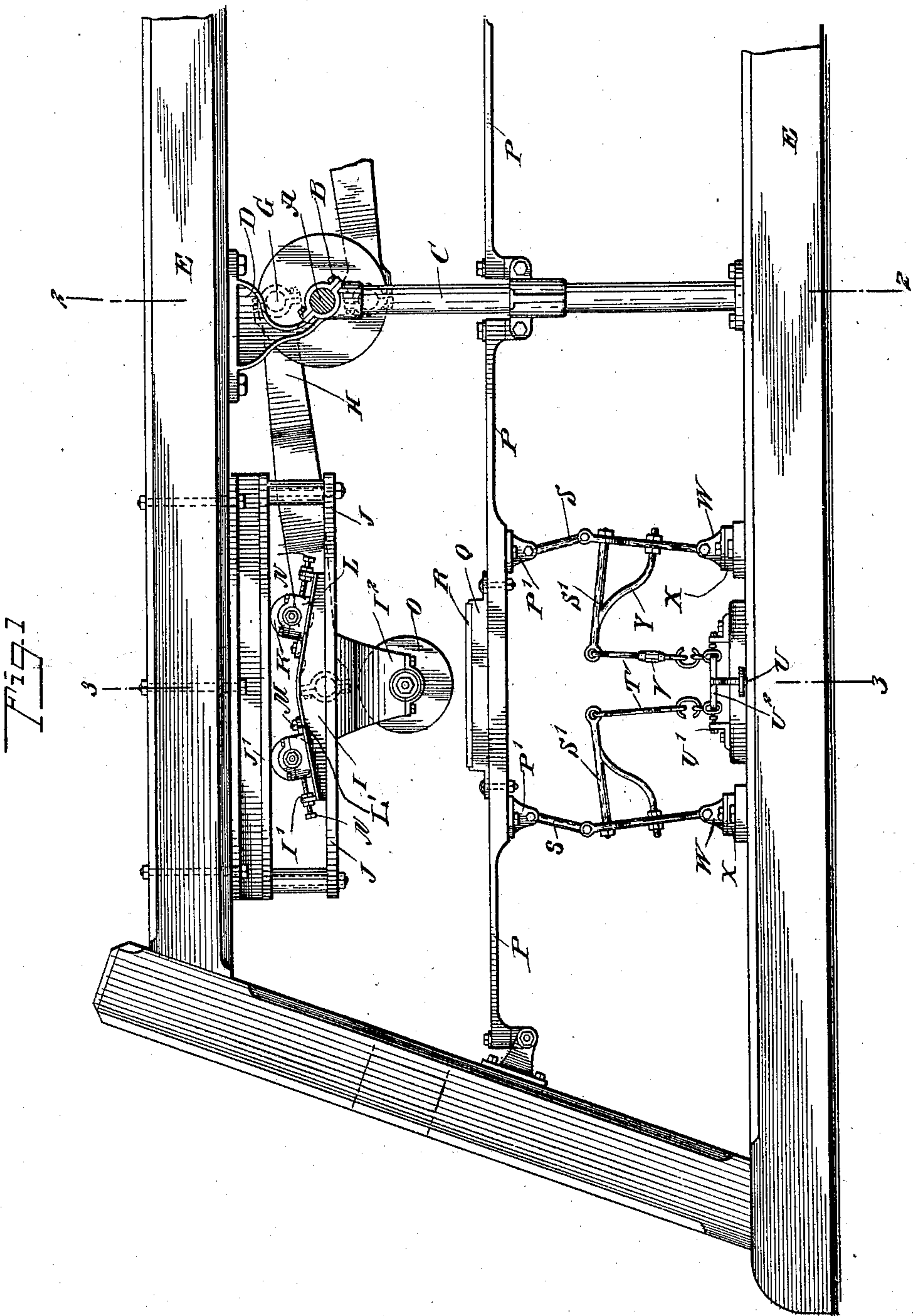
Patented Apr. 2, 1901.

W. W. WHITING.
MACHINE FOR ROLLING LEATHER.

(Application filed May 1, 1900.)

(No Model.)

2 Sheets-- Sheet 1.



WITNESSES:

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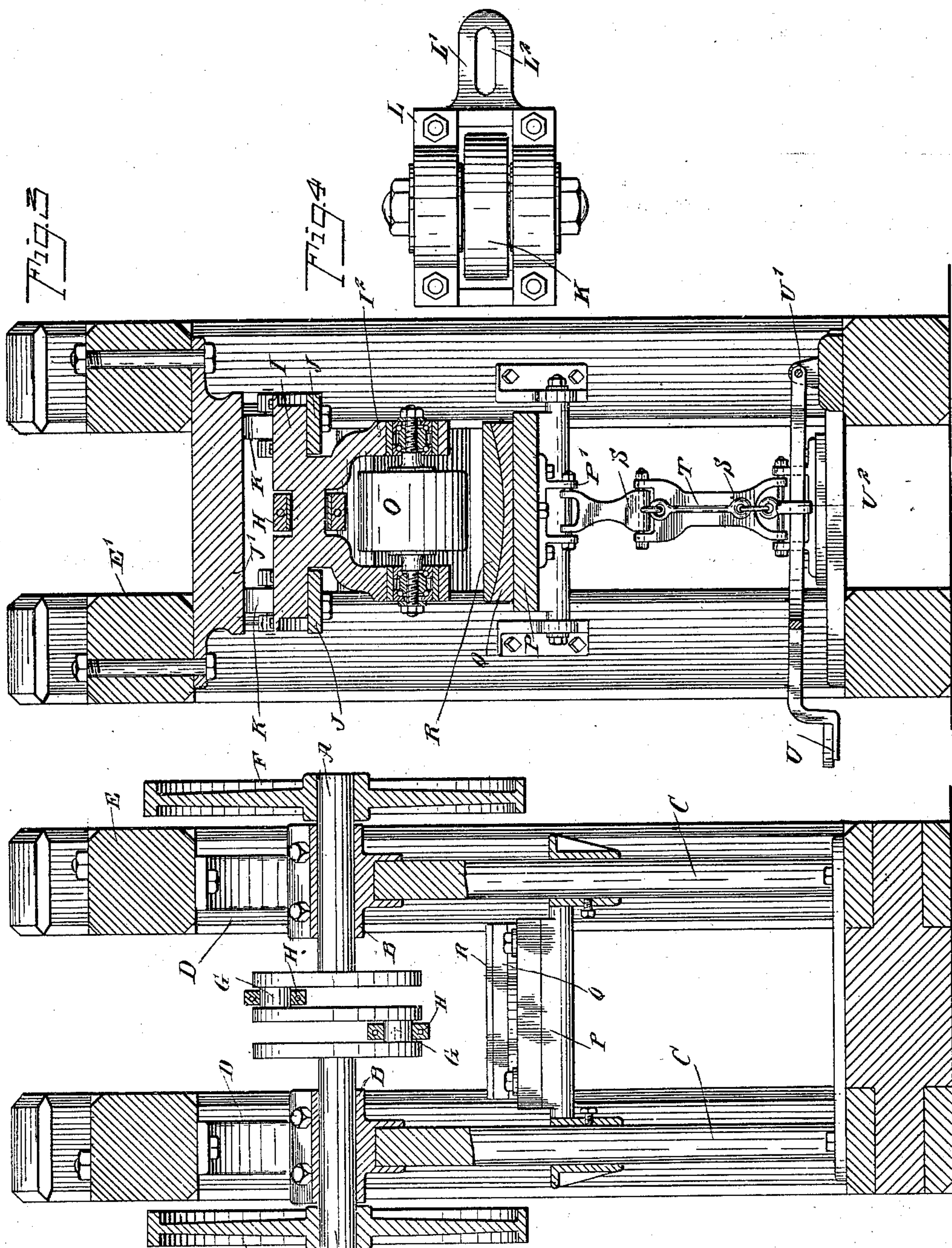
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Fig. 2

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UNITED STATES PATENT OFFICE.

WILLIAM W. WHITING, OF NEWBERRY, PENNSYLVANIA.

MACHINE FOR ROLLING LEATHER.

SPECIFICATION forming part of Letters Patent No. 671,255, dated April 2, 1901.

Application filed May 1, 1900. Serial No. 15,064. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. WHITING, a citizen of the United States, and a resident of Newberry, in the county of Lycoming and State of Pennsylvania, have invented new and useful Improvements in Machines for Rolling Leather, of which the following is a full, clear, and exact description.

My invention relates to machines for rolling leather for the purpose of rendering it of uniform density and of giving it smoothness and compactness.

The object of my invention is to provide a machine of the above-indicated class which will be simple in construction, readily adjustable to different thicknesses of leather, and provided with an arrangement for securing an automatic leveling of the pressure-exerting surface in accordance with inequalities of the material.

The invention will be fully described hereinafter and the features of novelty pointed out in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of part of my improved leather-rolling machine. Figs. 2 and 3 are sectional elevations on lines 2-2 and 3-3, respectively, of Fig. 1; and Fig. 4 is a detail plan of an adjustable bearing-roller employed according to my invention.

The machine is preferably constructed as a double machine, with two symmetrical halves of like construction driven from a centrally-located shaft A. Only one half of the machine is shown in Fig. 1, the other half being exactly the same in construction. The shaft A is journaled in bearings B, located at the upper ends of posts C and at the lower ends of hangers D, both secured to the frame E of the machine. The shaft carries a pulley F for driving it and a fly-wheel F' and has two oppositely-arranged cranks or crank-pins G, with which are connected the rods H, which drive the slides I, (only one of them being shown in the drawings.) Each slide I is approximately T-shaped, as shown in Fig. 3, and has an upper portion moving on longi-

tudinal guides J, and above said guides are placed parallel tracks or runways J', the two sets of guides or runways J J' being secured to the top bars of the frame E. The upper runways J' are engaged by rollers K, journaled in bearings L, which are adjusted in an inclined direction relatively to the runways, preferably parallel with the inclined top surface of the slide I. (See Fig. 1.) For this purpose the bearings may slide on said inclined surface and may be provided with lugs L', having longitudinal slots L², which are engaged by screws M, secured to the slide I. Adjusting-screws N are connected at their ends with the bearings L so as to turn therein, but to compel the bearings to move forward or backward with the screws, and said screws work in supports I', forming a part of the slide I. By this means the rollers K can be readily adjusted to take up wear. The slide has a depending forked member I², in which is journaled, preferably by means of ball-bearings, the resistance-roller O. Ball-bearings or roller-bearings are also preferably employed for the rollers K.

Below the path of the roller O is located the leather-support. This support consists of a bar or beam P, of elastic material, such as wood, fastened at its ends to the posts C and frame E, respectively, and carrying at its central portion the support proper, Q, which is a plate concaved transversely to loosely receive the bed-plate R, the lower surface of which is convexed transversely, while its upper surface is flat. The width of the bed-plate R is in practice about the same as that of the resistance-roller O; but for the sake of clearness the plate is shown of greater width in Fig. 3. The beam P has on its lower side hangers P', which are pivotally connected with toggle-levers S, the lower members of which carry operating-arms S', connected by links T with any suitable treadle mechanism—for instance, a treadle U, pivoted at U' and having a transverse arm U² connected with the links T. One of these links is preferably provided with an adjusting connection, such as a turnbuckle V. Between the brackets W, which receive the lower ends of the toggle-levers S, and the base of the machine-frame I interpose rubber cushions X, so as to re-

lieve the machine and the operator of sudden jars. Y represents extensions on the arms S', which may be adjusted in or out on the lower toggle-levers S to swing the arms S' and to
 5 change the initial position of the arms S', and consequently their travel.

In operation the leather is placed on the flat upperface of the bed-plate R. The roller O receives a reciprocating motion, as will
 10 be readily understood, and passes over the leather without, however, at first touching the same. The operator by pressing the treadle U bends the elastic beam P upward, so as to bring the leather against the reciprocating
 15 roller O. As the bed-plate R is loosely seated in the support Q, which is concaved transversely, the plate will automatically assume a position parallel with the roller—that is, horizontal—if the leather is of uniform thick-
 20 ness from one side to the other; but if the leather varies in thickness laterally the bed-plate will adjust itself to an inclined position, so that an even pressure will be exerted on every portion of the material. This self-ad-
 25 justing action is an important feature of my invention and enables me to secure very superior results. The operator can vary the pressure by bearing with greater or less force on the treadle U, and it will be understood
 30 that the elastic beam P removes the leather from the path of the resistance-roller O as soon as the treadle is released.

Various modifications may be made with-

out departing from the nature of my invention as set forth in the appended claims. 35

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

1. A machine for pressing leather and other materials, comprising a longitudinally-mov- 40
 able resistance part, and a material-support located adjacent to the path of said part and consisting of a support proper having a seat concaved transversely with reference to the direction in which the resistance part is adapt- 45
 ed to move, and a bed-plate engaging said seat loosely so as to be capable of an automatic transverse adjustment under pressure.

2. The combination of the frame having superposed runways, the slide arranged to travel 50
 on one of the said runways and provided with surfaces inclined relatively thereto, bearing portions adjustable on said inclined surfaces and engaging the other runway, a resistance device carried by the slide, means for impart- 55
 ing a reciprocating motion to the slide, and a material-support arranged adjacent to the path of the resistance-exerting device.

In testimony whereof I have signed my name to this specification in the presence of 60
 two subscribing witnesses.

WILLIAM W. WHITING.

Witnesses:

ELGAR H. TOWNSEND,
 WARDEN M. MORRIS.