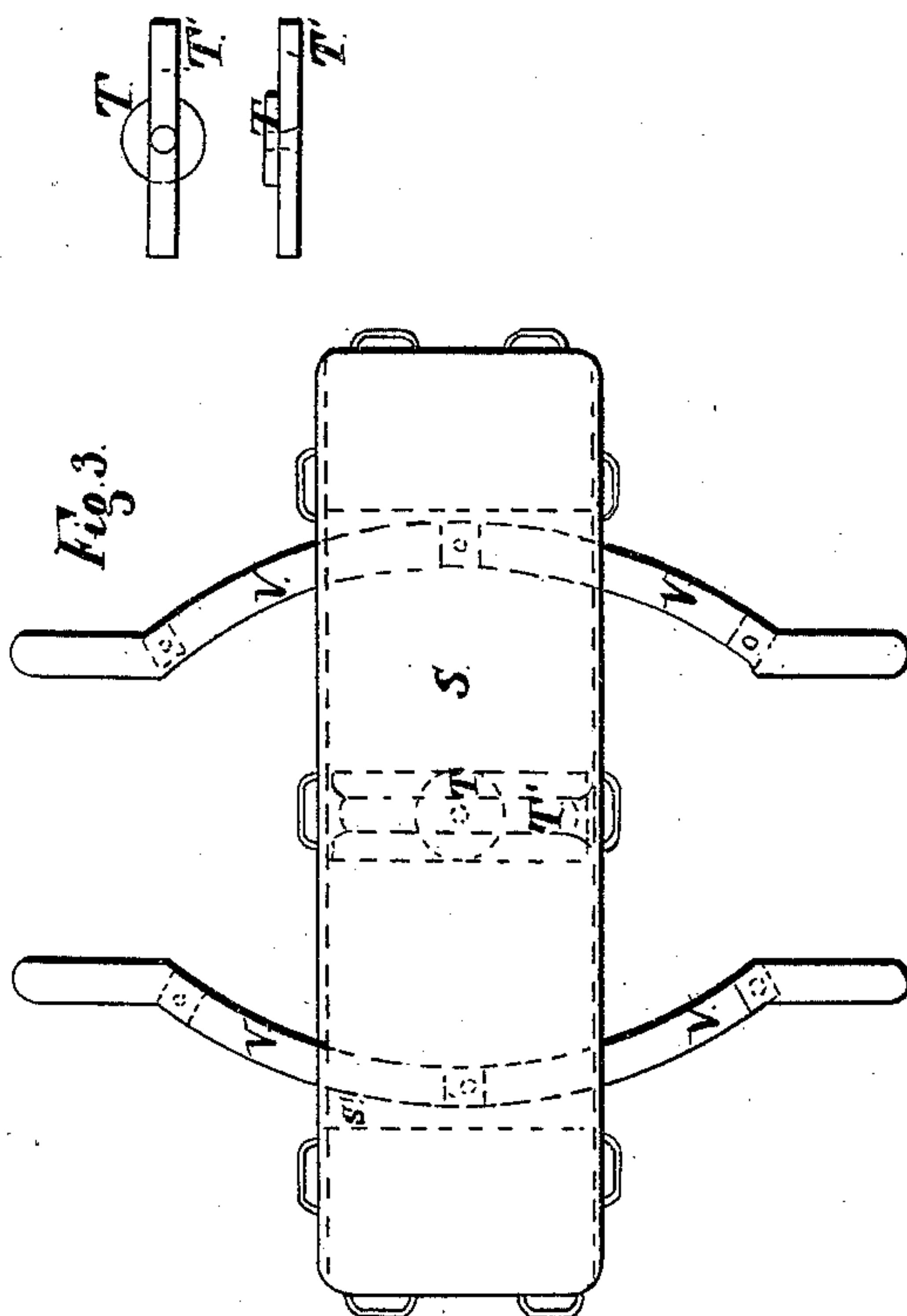
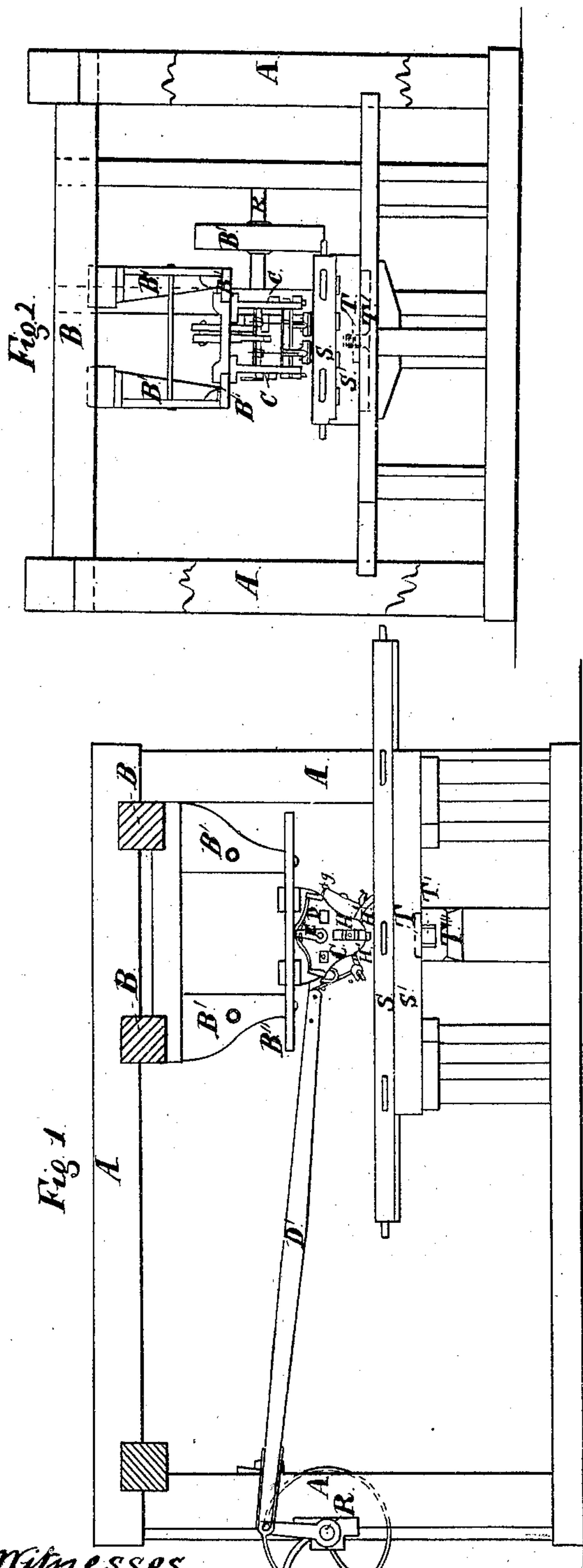


*A. W. Roberts,*  
*Leather Scouring Machine,*  
*No. 63,307,* *Patented Mar. 26, 1867.*



Witnesses  
 George Barron  
 J. W. Blair

Inventor  
 A. W. Roberts

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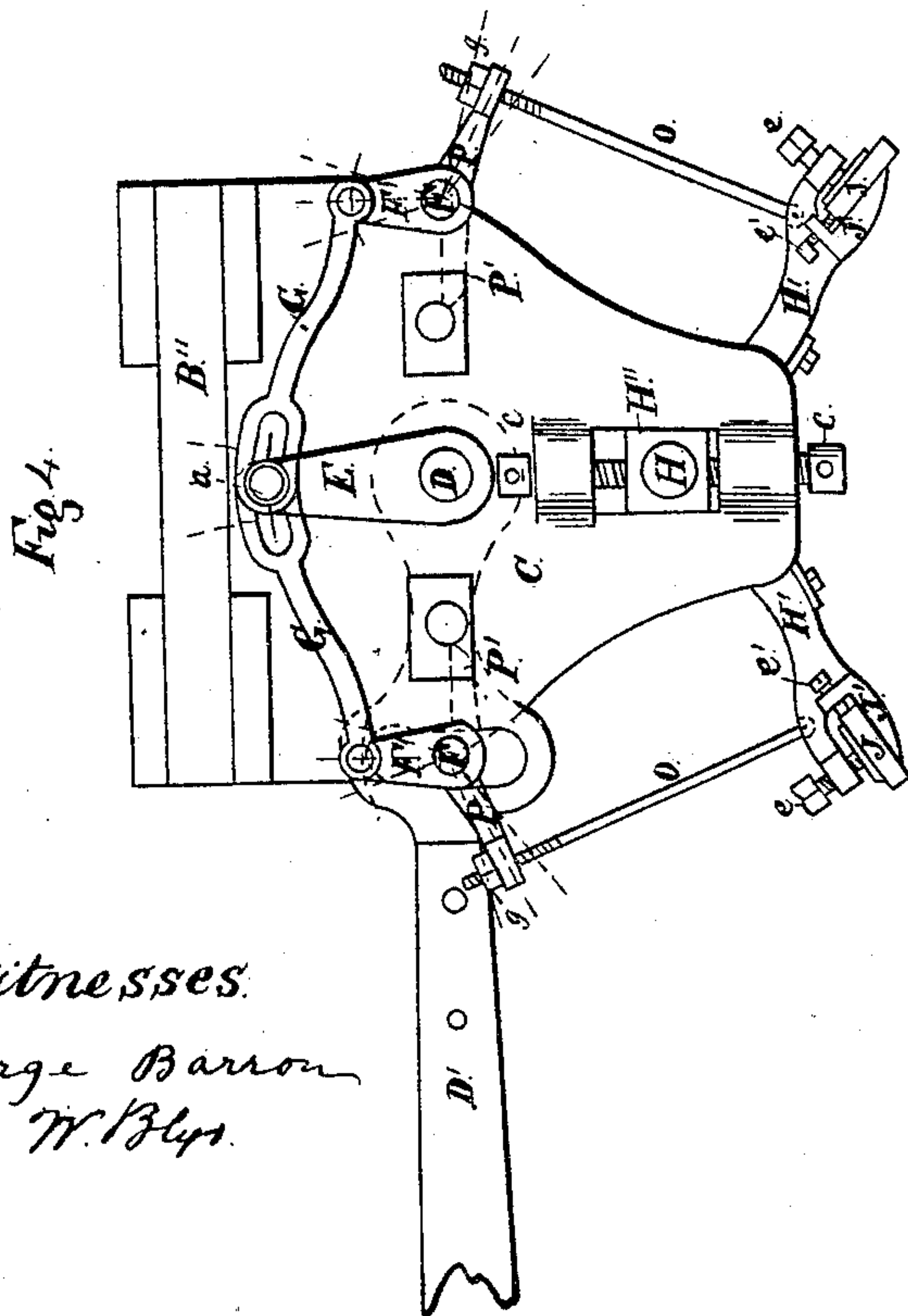
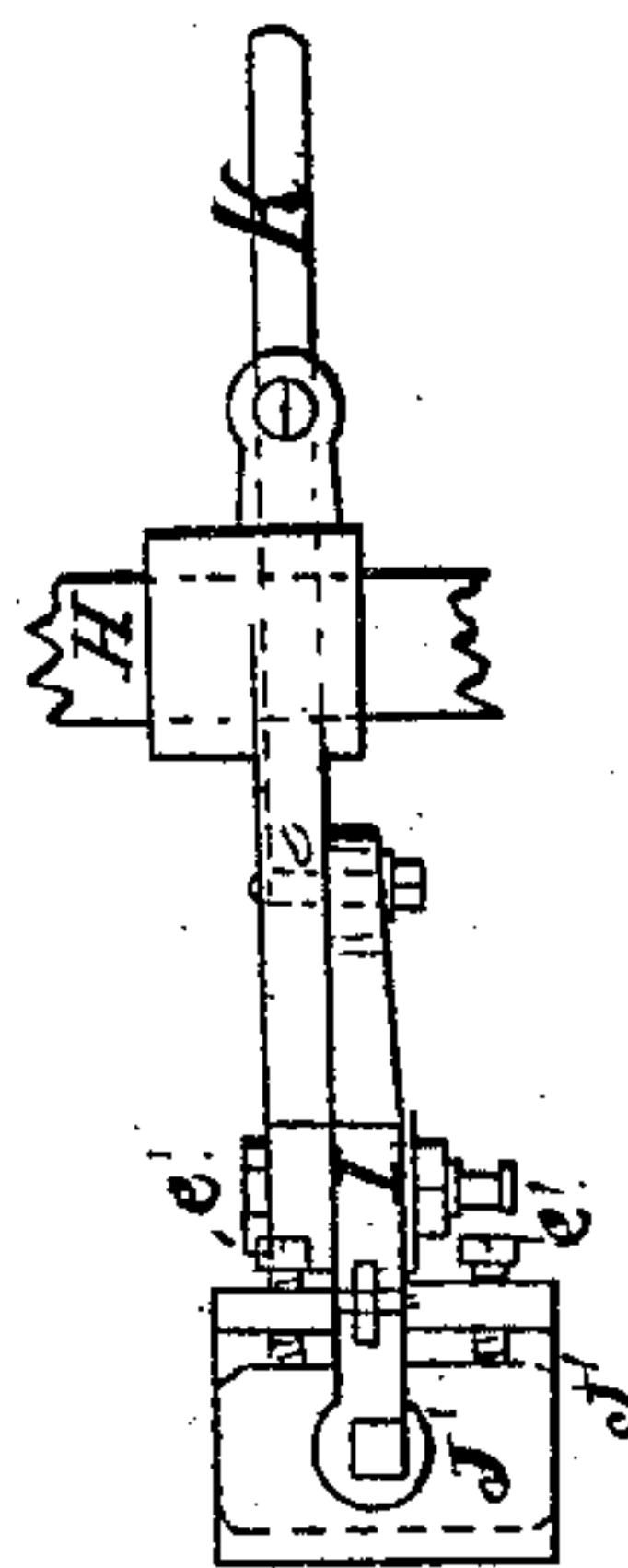
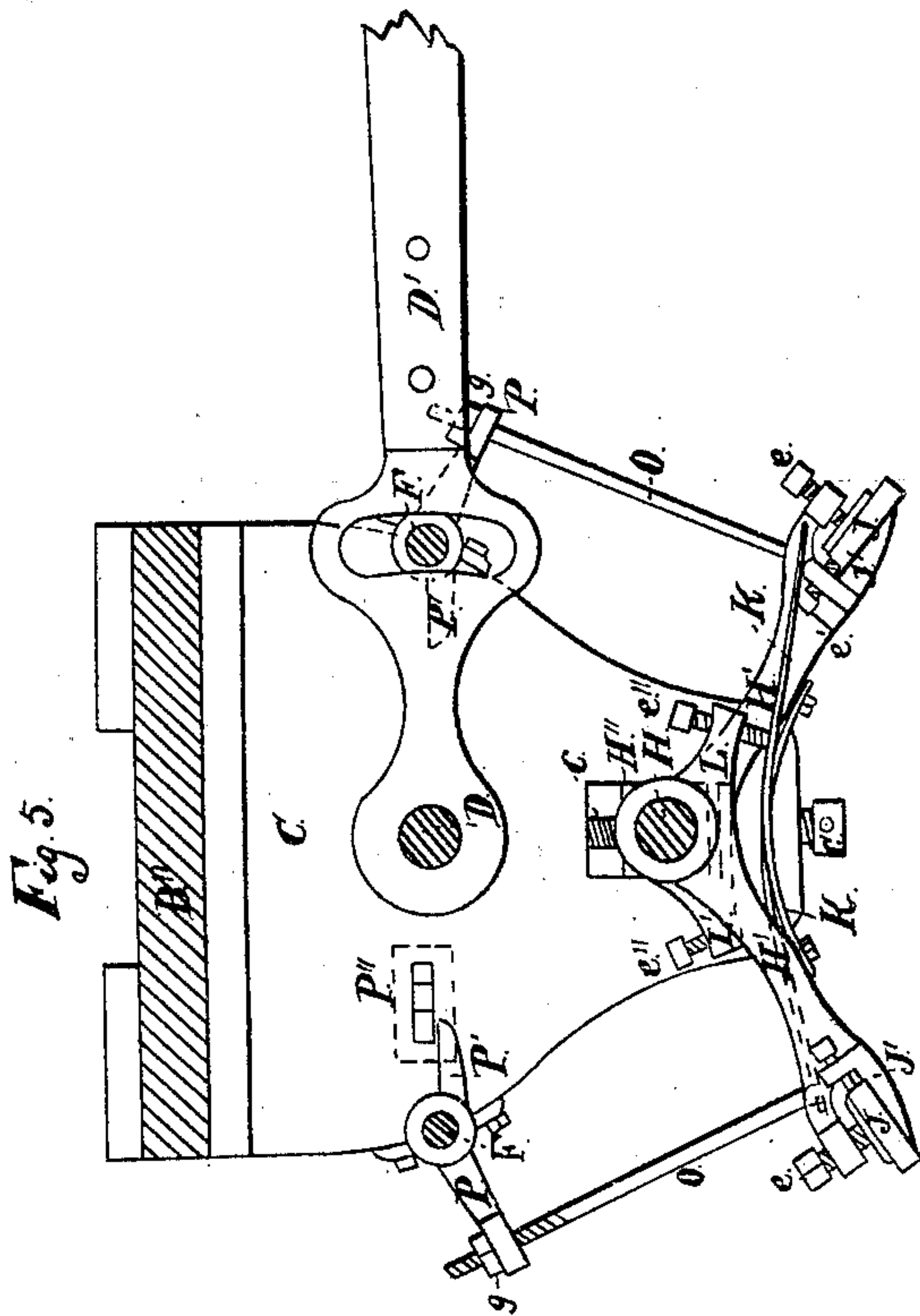
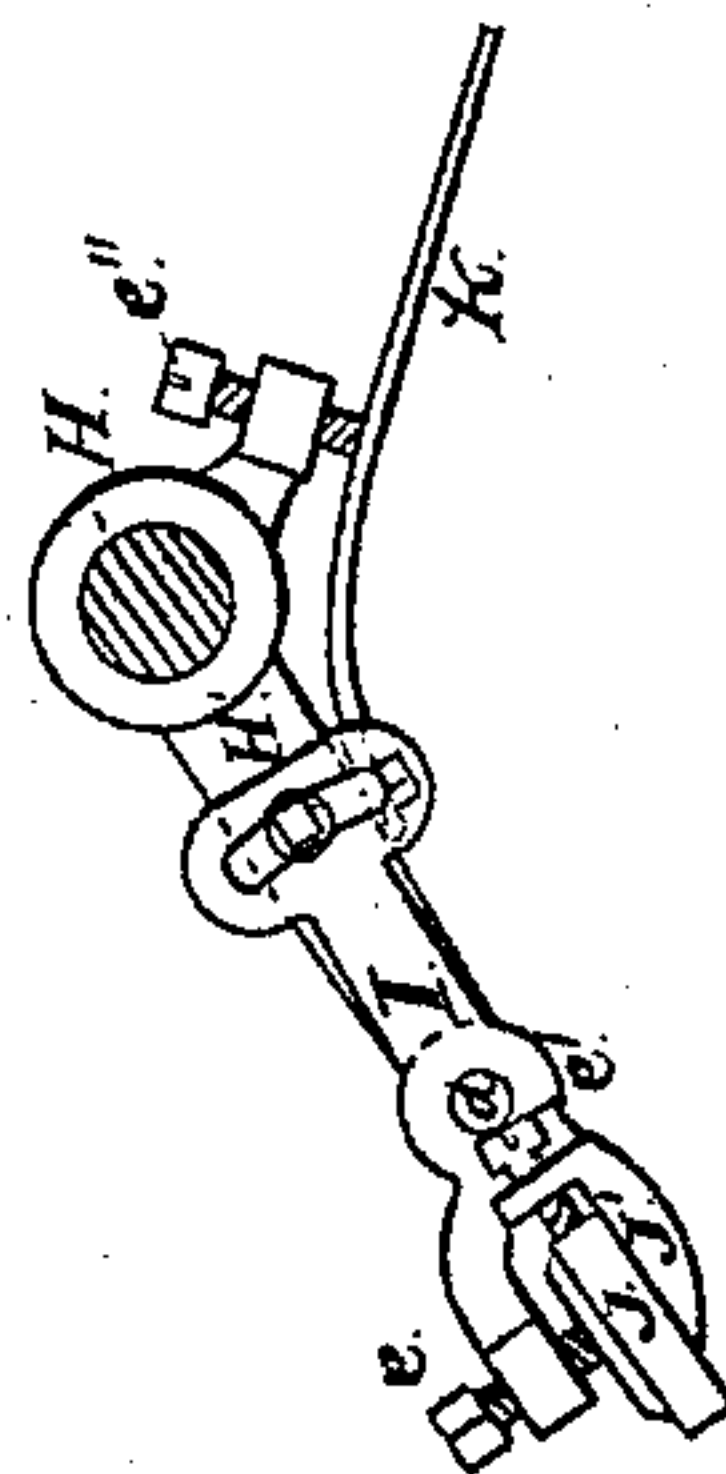


Fig. 6.



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# United States Patent Office.

ALBERT W. ROBERTS, OF HARTFORD, CONNECTICUT, ASSIGNOR TO P. JEWELL AND SONS, OF THE SAME PLACE.

*Letters Patent No. 63,307, dated March 26, 1867.*

## IMPROVEMENT IN LEATHER-SCOURING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, ALBERT W. ROBERTS, of the city and county of Hartford, and State of Connecticut, have invented certain new and useful Improvement in Leather-Scouring Machines; and to enable others skilled in the art to make and use the same, I will proceed to describe its construction and operation, referring to the drawings, in which the same letters indicate like parts in each of the figures.

The nature of this invention will be understood from the specification and drawings, the object of which is to systematically arrange the mechanism of a leather-scouring machine, whereby it is rendered more perfectly automatic in its operation, and more rapid in its action. In the accompanying drawings—

Figure 1 is a side elevation of the machine.

Figure 2 is an end elevation of the machine.

Figure 3 is a plan view of the table or bed upon which the leather is placed and held by atmospheric pressure to receive the action of the tools.

Figure 4 is a side elevation of the reciprocating head detached from the machine.

Figure 5 is a partial-section view of the head, showing more clearly the inside arrangement of its parts.

Figure 6 is a side and top view of an adjustable tool-holder, showing how the angle of the stone or tool-holder is elevated or depressed upon its oscillating arm. The object of raising and lowering the arms, and altering the angle of the tool-holders, is to facilitate the operation of scouring, and to perform the work more perfectly, because in light leather it is important that the tools should be held at a more acute angle than what is required for heavy leather.

A is the framework of the machine, or the wall of a building. B are trusses or timbers secured in or upon said wall or framework, to which the hangers B' and guide-ways B'' are secured. C is a reciprocating tool-stock, secured closely and works freely upon the guide-ways B''. D is a rocking and actuating-shaft, to which one end of the connecting-rod D' is secured, between the sides of said stock C. Said shaft D has a vibrating arm, E, secured to its outer end. F F are rock-shafts, which extend across and work in bearings formed in the sides of the tool-stock C, having arms F' secured to their outer ends. G G are link connecting-rods, one end of each of which is secured to the upper end of the arms F', the link ends of which work upon a pin or screw, a, in the upper end of the arm E. H is a fulcrum-shaft, upon which the tool-arms H' are arranged, the ends of which take bearing in the boxes H'', which are fitted into vertical guide-ways formed in the sides and near the lower end of the tool-stock. These boxes H'' are elevated or depressed and firmly held in position by the action of the screws c, or their equivalents. I are tool-holders. One plan of constructing said holders is to form the holder on the outer end of the arm H'. The other form of constructing said tool-holder is to make it of a separate piece of metal, and securing it to the lower or outer end of the arms H' by means of a screw or bolt, d. The upper ends of these holders are provided with a slitted segment, the radius of which has its centre in the screw or bolt d, the object of which is to regulate the angle of the tool J. J is the tool, secured in the clamp J' by means of the holding-screw e. Said tool is adjusted in its proper position in said clamps by means of the screws e'. K is a spring, one end of which is secured to the arm H' by a screw, or otherwise, the outer end of which takes its bearing upon the upper side of the clamp or tool-holder of the opposite arm, the pressure of which spring is adjusted by the action of the screw e'' in the arm L. O are lifting-rods, one end of which is hinged to the tool-clamps or holders. The upper ends of said rods pass through orifices formed in the outer ends of the lifting-arms P, secured to or on the rock-shafts F F. These rock-shafts are provided with arms P', which extend inward nearly in an opposite line or direction from the arms P, for the purpose of holding the tools up from the work while the head is in motion by the sliding motion or action of the dogs P'', or their equivalents. The rods O are provided with adjustable nuts q, the office of which is to regulate the time of commencing and stopping the alternate action of the tools. The outer end of the connecting-rod D' is secured to a crank by a pin on the end of the counter-shaft R, and from which motion is imparted to the machine by the pulley R'. S is a table, which is constructed in two parts. The lower part S' is provided with ways or guides on its upper surface, upon which the upper bed or table S is fitted to move closely and freely thereon, and in a parallel line therewith. T is a rotating plate, fitted closely and rotates freely in the under side of the bed S'. T' is a sliding plate, firmly



secured to the face of the rotating plate T. This plate T' is fitted into a horizontal guide-way, T'', which is firmly supported by a post, U, and in a position at right angles with the guide-ways B'', so that this plate T' can only move in a right-angle line with the guide-ways B'', while the bed S' is free to oscillate thereon. The guide-ways V are supported in a horizontal position, and on a level with the guide-ways T''. These guide-ways may be formed in one whole true circle, or of two or more straight pieces, or in a circular or curved form, as shown in fig. 3. It will be seen that by this arrangement or construction of the table that, when the leather is placed thereon, the workman can quickly and easily bring it into any desirable position to the action of the tools. I have thus endeavored to show the construction and the result produced by the peculiar adaptation of the several parts one with the other, so as to enable others skilled to make and use the same therefrom.

What I claim, therefore, and desire to secure by Letters Patent, is—

1. The rotating plate T, sliding plate T', guide-way T'', or their equivalents, in combination with the table S', to produce a transverse movement of the table with the guide-ways B'', substantially as described.
2. In combination with the above, I claim the table S, to produce a universal horizontal movement of said table, substantially as described.
3. I claim the employment of an oscillating adjustable tool-holder with the arms H', for altering the angle of the tool, substantially as described.
4. I claim the altering of the angle of the tool, with or without the use of the tool-arms H', by means of the adjustable shaft H, or its equivalent, substantially as described.
5. I claim the employment of the springs K, secured to the arms H', and bearing upon the tool-holders I, extending in an opposite direction from that to which the springs are secured, for the purpose of imparting pressure from one to the other, substantially as shown and described.
6. I claim the alternate action of the springs K, imparted from one to the other by raising either one of the arms from the table, substantially as described.
7. I claim the arms G G, in combination with the arms F' F', arm E, rock-shafts F F, and their connections, for lifting the tools from the table, substantially as shown and described.
8. I claim arranging the arms H' upon an independent shaft H, to more perfectly utilize their action.
9. I claim arranging the shaft H in adjustable or sliding boxes H'', whereby it can be elevated or depressed by screws c c, or their equivalents, for the purpose as shown and described.
10. I claim the employment of slide-dogs P'', or their equivalents, for holding up the tools from the work while the tool-stock C is in motion.
11. I claim the employment of the screw c'' with the arm L, or their equivalents, for increasing the tension of the spring K, substantially as described.

A. W. ROBERTS.

Witnesses:

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JEREMY W. BLISS.