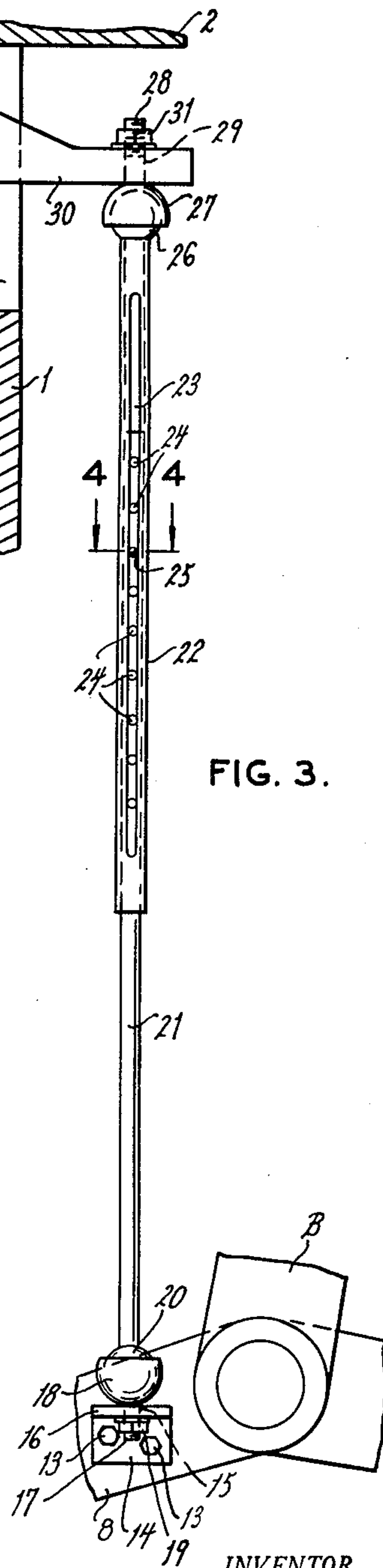
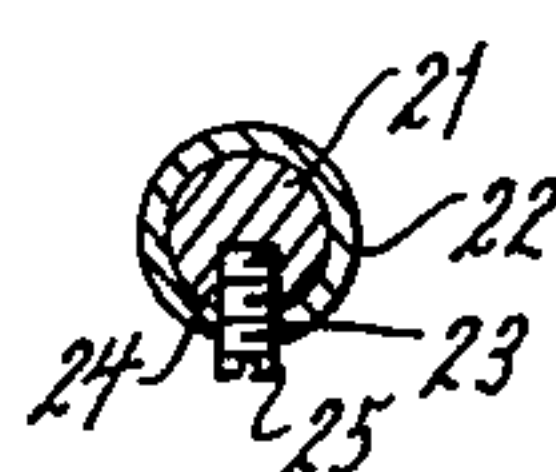
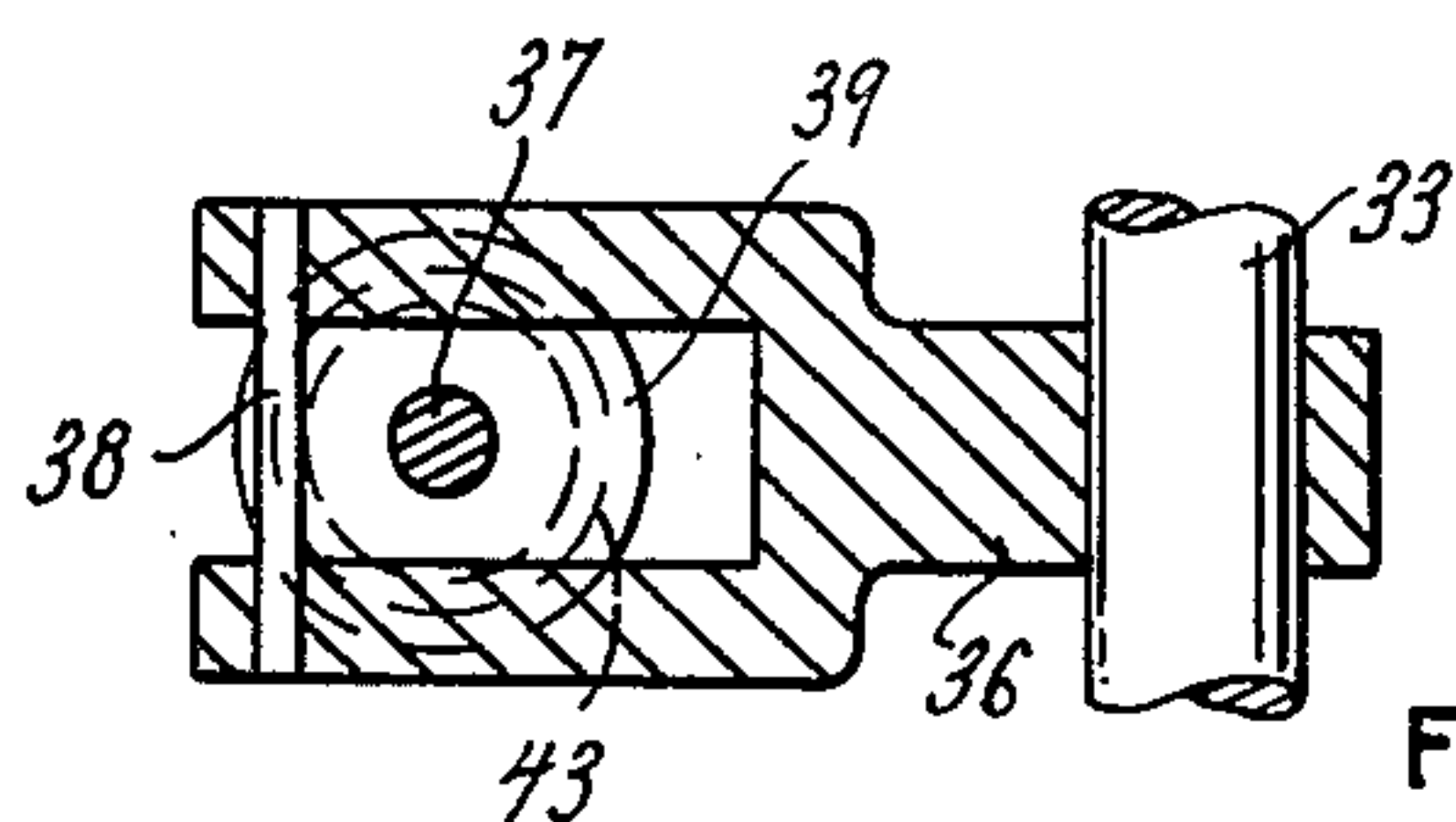
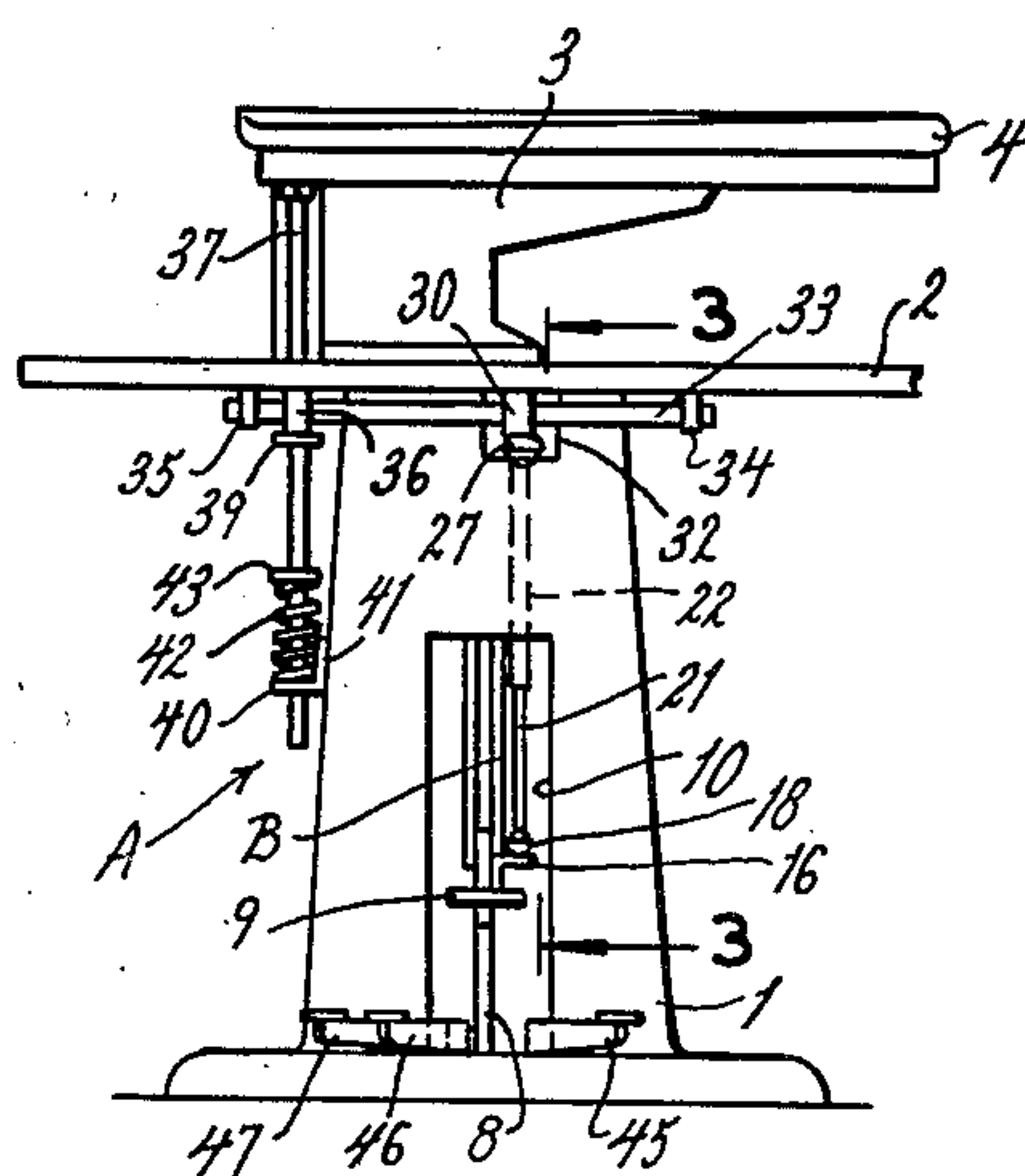
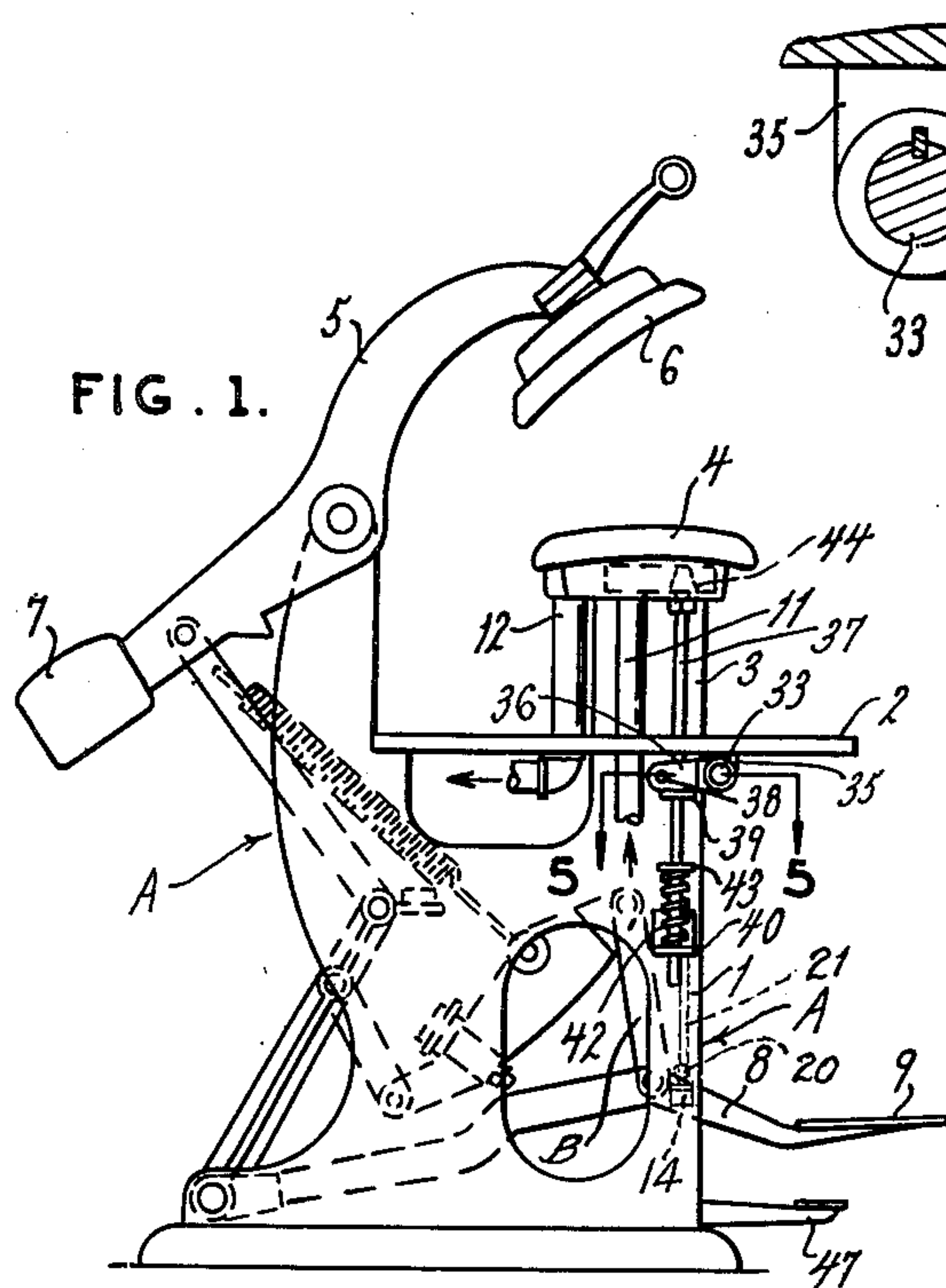


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BUCK STEAM VALVE OPERATING ATTACHMENT  
FOR GARMENT PRESSING MACHINES  
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## BUCK STEAM VALVE OPERATING ATTACHMENT FOR GARMENT PRESSING MACHINES

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This invention relates in general to garment pressing machines and, more particularly, to certain new and useful improvements in a buck steam valve operating attachment therefor.

Garment pressing machines now generally in use are operated with steam fed to the head which is accomplished by manipulating a hand lever for opening the head steam valve after the head has been lowered into pressing position by means of a main foot lever. These machines are ordinarily equipped with a separate pedal or foot lever for actuating the buck steam valve should the user desire to present steam to the buck. However, since this operation would require the simultaneous utilization of both of the operator's feet, it is readily seen that such is highly awkward and, hence, most seldom performed. Furthermore, since bucks are relatively heavily padded, having numerous thicknesses of felt and similar material, a substantially large amount of steam is required for penetration thereof which is relatively uneconomical. For these reasons, steam feeding the buck has not been generally practiced heretofore.

Therefore, it is the primary object of the present invention to provide an attachment for garment pressing machines whereby steam will be fed to the buck upon operation of the main foot lever, obviating the contemporaneous actuation of a second foot lever.

It is a further object of the present invention to provide an attachment for garment pressing machines of the character stated which is readily adjustable for controlling the amount of steam fed to the buck.

It is an additional object of the present invention to provide an attachment for garment pressing machines of the character stated which may be readily mounted upon currently used pressing machines.

It is a still further object of the present invention to provide an attachment for garment pressing machines of the character stated which, having a simplicity of parts, is economical to manufacture and durable and reliable in usage.

With the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawing,

Figure 1 is an elevational view of a conventional type garment pressing machine incorporating a buck steam valve operating attachment constructed in accordance with and embodying the present invention;

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Figure 2 is a front view of the frame and buck of the pressing machine;

Figure 3 is an enlarged side view of the attachment taken substantially along line 3—3 of Figure 2;

Figure 4 is a transverse sectional view taken along line 4—4 of Figure 3; and

Figure 5 is a fragmentary transverse sectional view taken along line 5—5 of Figure 1.

Referring now by reference characters to the drawing which illustrates a preferred embodiment of the present invention, A designates a conventional type garment pressing machine having a frame 1, a table 2 mounted thereon, and a pedestal 3 upon which is mounted a buck or stationary pressing form 4. The rear portion of the frame 1 extends upwardly and pivotally supports a pressing lever 5 having disposed on its forward end a head or movable pressing form 6 for co-operation with the buck 4, and on its opposite end a counterweight 7. Operatively connected to the pressing lever 5 by conventional toggle mechanisms generally designated B is a main lever 8 having an integrally formed pedal portion 9 on its outer end which projects forwardly through a central opening 10 in the frame 1. Depression of the lever 8, which is normally biased upwardly, will cause the head 6 to be rocked downwardly into pressing position upon the buck 4. Said buck 4 is adapted for receiving steam having a steam inlet pipe 11 connected to a source of steam (not shown) and a steam return line 12.

Mounted by bolts 13 upon one side of the main lever 8, adjacent its inner end, which is just inwardly of the forward face of the frame 1, is an angle bracket 14 having an aperture 15 drilled in its horizontally extending section 16 for receiving the depending threaded stem 17 of an upwardly opening socket-forming member 18, said stem 17 having a nut 19 secured thereon. Fitted within the socket-forming member 18 for rocking movement therein is a ball 20 rigidly fixed, as by welding, upon the lower end of an upwardly extending rod 21, the upper portion of which projects into a tube 22. Said tube 22 is provided substantially throughout its length with a relatively narrow elongated aperture 23 for exposing the aligned portion of the rod 21 in which is tapped a plurality of vertically spaced, relatively shallow bores 24 for selectedly receiving a stop screw 25. It will thus be seen that the extent of downward sliding movement of the rod 21 within the tube 22 will be determined by the selected position of the stop screw 25 within the



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bores 24, as such movement will be terminated by detaining abutment of the screw 25 against the lower margin of the aperture 23.

Fixed to the upper end of the tube 22, as by welding, is a ball 26 which is fitted into a downwardly opening socket-forming member 27 integrally having an upwardly presented stem 28 projecting through an aperture 29 in the inner end of a rocker arm 30, said stem 28 being secured by a nut 31. The rocker arm 30 extends forwardly through an opening 32 in the outwardly presented face of the frame 1, the outer end of the rocker arm 30 being enlarged and drilled for rigidly securing same, as by keying, upon a transverse cross shaft 33 disposed spacedly beneath the forward portion of the table 2. Said cross shaft 33 is journaled at its ends in bearing members 34, 35, mounted upon the under face of the table 2. The ends of the cross shaft 33 extend beyond the planes of the side faces of the frame 1. Inwardly of one end of the shaft 33, in outwardly spaced relation to the adjacent side face of the frame 1, there is fixed upon the shaft 33, for rocking movement therewith, the base of an inwardly opening clevis 36 through the mouth of which freely projects a vertically disposed valve rod 37, said clevis 36 being perforated at its ends to receive a pin 38 extending therebetween to prevent inexpedient displacement of the clevis 36 with relation to the valve rod 37. Upon its under face, the clevis 36 abuts against the upper surface of a collar 39 fixed upon the valve rod 37. At its lower end, said valve rod 37 projects loosely through a suitable aperture in the horizontal section 40 of an angle bracket 41 secured to the adjacent side wall of the frame 1. Encirclingly disposed about the valve rod 37 is a spiral spring 42 which bears at its lower end against the upper face of the horizontal section 40 of the bracket 41 and at its upper end against the under face of a collar 43 rigidly secured upon the valve rod 37 in downwardly spaced relation to the collar 39. Coupled to the valve rod 37 at its upper end is a buck steam valve 44 which is disposed within the base portion of the buck 4 for controlling the admission of steam therethrough from the steam inlet pipe 11.

It is apparent that the machine A may be provided with a system for feeding steam to the head 6, the valve for which may be either operated manually or by actuation of a foot pedal such as 45. Said machine A may also be provided with a customary vent valve and vacuum valve actuated by foot levers 46, 47, respectively.

In usage, upon depression of the main lever 8, in order to lower the head 6 into pressing position, the rod 21 will be carried downwardly with its upper portion sliding freely in the tube 22, said tube 22 being normally stationary since the cross shaft 33 is prevented from unauthorized rocking movement by the upward pressure of the collar 39 upon the clevis 36 through bias of the spring 42. When the stop screw 25 comes into detaining abutment against the lower margin of the aperture 23, the tube 22 will be carried downwardly by continued downward movement of the rod 21 through further depression of the main lever 8 whereupon the rocker arm 30 will be rocked downwardly causing the cross shaft 33 to be rocked commensurately. A corresponding rocking movement will be imparted to the clevis 36 causing same to drivingly engage the collar 39 to move the valve rod 37 downwardly against the tension of the spring 42. The downward travel of the valve rod 37 will cause the valve 44 to be

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lowered into open position, permitting the entry of steam into the buck 4 for pressing purposes. Release of the main lever 8 by the operator's foot will move the valve 44 to closed position with the simultaneous upward swinging of the head 6.

It will thus be seen that the amount of steam admitted to the buck 4 can be regulated by the positionment of the stop screw 25 within the bores 24 of the rod 21. For example, if a maximum amount of steam is desired, the stop screw 25 will be inserted in the lowest bore 24 whereupon the sliding movement of the rod 21 will be minimal prior to abutment of the stop screw 25 against the lower margin of the aperture 23 so that the tube 22 will be moved downwardly during substantially the entire course of the act of depressing the main lever 8. Hence, a maximum rocking effect will cause the shaft 33 with a corresponding downward thrust upon the collar 39 by the clevis 36 to cause the valve rod 37 to be lowered for disposing the valve 44 in maximum open position. Conversely, if a minimal amount of steam is desired to be fed to the buck 4 the stop screw 25 will be positioned in the uppermost of the threaded bores 24 so that downward movement of the tube 22 will not be effected until approximately immediately before the completion of the depression of the main lever 8. This will cause a minimum rocking of the shaft 33 so that the valve 44 will be moved into minimum open position. Clearly, any desired gradations in amount of steam between maximum and minimum may be effected by positioning the stop screw in the other threaded bores 24.

It is to be noted that the rod 21 and tube 22 will be maintained along an axis substantially perpendicular to the floor by free rocking of the balls 20, 26, within their respective sockets 18, 27. Furthermore, the spring 42 will remain serviceable throughout extensive periods of operation since it is not subjected to any torque but solely to an axially directed force.

By the practice of the above described invention, it has been discovered that the buck 4 may be substantially stripped of padding and be supplied with but a single surface layer. This feature assures maximum economic utilization of the steam fed to the buck 4 and, additionally it has been found that such will cause a most attractive finish to be imparted to the garments, a finish which has not heretofore been accomplished by feeding steam to the head.

It is apparent that the invention herein described could be readily mounted upon the various types of garment pressing machines in current use without requiring other than relatively simple mechanical adjustments.

It should be understood that changes and modifications in the form, construction, arrangement, and combination of the several parts of the buck steam valve operating attachment may be made and substituted for those herein shown and described without departing from the nature and principle of the present invention.

Having thus described my invention, what I now claim and desire to secure by Letters Patent is:

1. In combination with a garment pressing machine having a head, a buck, a buck steam valve, and means including a main lever for lowering the head into pressing position upon the buck, the improvement comprising a vertically disposed rod mounted upon the main lever for movement therewith, a tube disposed concentrically about said rod for slidable engagement therewith, a



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cross shaft rotatably mounted on the machine, said tube being connected to said cross shaft, a valve rod coupled to said buck steam valve, a member rigidly mounted on said cross shaft for engagement with said valve rod to move same downwardly for opening the valve on rotation of the cross shaft, and interengageable means provided on said tube and rod for selectively limiting relative movement therebetween on operation of the main lever whereby on continued movement of the rod beyond the point of engagement of the interengageable means movement will be transmitted to the tube for rotating the cross shaft.

2. In combination with a garment pressing machine having a head, a buck, a buck steam valve, and means including a main lever for lowering the head into pressing position upon the buck, the improvement comprising a vertically disposed rod swivelly mounted at its lower end upon the main lever for movement therewith, a tube having its lower end open for receiving the upper portion of said rod for slidable engagement therewith, a cross shaft rotatably mounted on the machine, said tube being connected at its upper end to said cross shaft, a valve rod coupled to said buck steam valve, a member rigidly mounted on said cross shaft for engagement with said valve rod to move same downwardly for opening the valve on rotation of the cross shaft, and interengageable means provided on said tube and rod for selectively limiting relative movement therebetween on operation of the main lever, whereby on continued movement of the rod beyond the point of engagement of the interengageable means movement will be transmitted to the tube for rotating the cross shaft.

3. In combination with a garment pressing machine having a head, a buck, a buck steam valve, and means including a main lever for lowering the head into pressing position upon the buck, the improvement comprising a vertically disposed rod swivelly mounted at its lower end upon the main lever for movement therewith, a tube having its lower end open for receiving the upper portion of said rod for slidable engagement therewith, a cross shaft rotatably mounted on the machine, a rocker arm secured to said cross shaft for movement therewith, said tube being swivelly mounted at its upper end on said rocker arm and depending therefrom, a valve rod coupled to said buck steam valve, a member rigidly mounted on said cross shaft for engagement with said valve rod to move same downwardly for opening the valve on rotation of the cross shaft, and interengageable means provided on said tube and rod for selectively limiting relative movement therebetween on operation of the main lever, whereby on continued movement of the rod beyond the point of engagement of the interengageable means movement will be transmitted to the tube for rotating the cross shaft.

4. In combination with a garment pressing machine having a head, a buck, a buck steam valve, and means including a main lever for lowering the head into pressing position upon the buck, the improvement comprising a vertically disposed rod swivelly mounted at its lower end upon the main lever for movement therewith, a tube having its lower end open for receiving the upper portion of said rod for slidable engagement therewith, a cross shaft rotatably mounted on the machine, a rocker arm secured to said cross shaft for movement therewith, said tube

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being swivelly mounted at its upper end on said rocker arm and depending therefrom, a vertically presented valve rod coupled to said buck steam valve, resilient means mounted on the machine for biasing said valve rod upwardly into valve closing position, a member rigidly mounted on said cross shaft for engagement with said valve rod to move same downwardly against the tension of the resilient means for opening the valve on rotation of the cross shaft, and interengageable means provided on said tube and rod for selectively limiting relative movement therebetween on operation of the main lever, whereby on continued movement of the rod beyond the point of engagement of the interengageable means movement will be transmitted to the tube for rotating the cross shaft.

5. In combination with a garment pressing machine having a head, a buck, a buck steam valve, and means including a main lever for lowering the head into pressing position upon the buck, the improvement comprising a vertically disposed rod swivelly mounted at its lower end upon the main lever for movement therewith, a tube having its lower end open for receiving the upper portion of said rod for slidable engagement therewith, a cross shaft rotatably mounted on the machine, a rocker arm secured to said cross shaft for movement therewith, said tube being swivelly mounted at its upper end on said rocker arm and depending therefrom, a valve rod coupled to said buck steam valve, a member rigidly mounted on said cross shaft for engagement with said valve rod to move same downwardly for opening the valve on rotation of the cross shaft, said tube having a single enlarged aperture extending substantially the length of said tube with the lower margin of said aperture being spaced from the lower end of the tube, said rod having bores aligned with said apertures, a stop pin selectively positionable in said bores on said rod for outward radial projection through the enlarged aperture of the tube for limiting relative movement between said rod and tube by abutting engagement against the lower margin of the aperture, whereby continued movement of the rod subsequent to such engagement, through operation of the main lever, will cause transmission of motion to the tube for rocking the rocker arm to rotate the cross shaft.

6. In combination with a garment pressing machine having a head, a buck, a buck steam valve, and means including a main lever for lowering the head into pressing position upon the buck, the improvement comprising a vertically disposed rod swivelly mounted at its lower end upon the main lever for movement therewith, a tube having its lower end open for receiving the upper portion of said rod for slidable engagement therewith, a cross shaft rotatably mounted on the machine, a rocker arm secured to said cross shaft for movement therewith, said tube being swivelly mounted at its upper end on said rocker arm and depending therefrom, a valve rod coupled to said buck steam valve, a member rigidly mounted on said cross shaft for engagement with said valve rod to move same downwardly for opening the valve on rotation of the cross shaft, said tube having a single enlarged aperture extending substantially the length of said tube with the lower margin of said aperture being spaced from the lower end of the tube, said rod having a plurality of vertically aligned threaded bores, said bores being aligned with the enlarged aperture of the tube,



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and a stop screw for selected disposition in said bores for outward radial projection through the enlarged aperture of the tube for regulating the extent of relative movement between the rod and the tube on operation of the main lever by terminating such movement on abutting engagement against the lower margin of the aperture whereby continued movement of the rod subsequent to such engagement, will cause transmission of motion to the tube for rocking the rocker arm to rotate the cross shaft, with the distance of travel of the tube and rod together determinative of the degree of rotation of the cross shaft and the extent of the valve opening.

7. In combination with a garment pressing machine having a head, a buck, a buck steam valve, and means including a main lever for lowering the head into pressing position upon the buck, the improvement comprising a rod mounted at its lower end upon the main lever for vertical movement upon movement of the lever, a cross shaft rotatably mounted on the machine in upward spaced relation to the main lever, a rocker arm engaged to said cross shaft, a tube mounted at its upper end to said rocker arm and depending therefrom, said tube being open at its lower end for receiving the upper portion of the rod for slidable engagement therewith, means connecting said cross shaft and said buck steam valve for operation of said valve consequent to rotation of the cross shaft, and interengageable means provided on said tube and rod for selectively limiting relative movement therebetween on operation of the main lever whereby on continued movement of the rod beyond the point of engagement of the interengageable means movement will be transmitted to the tube for rotating the cross shaft.

8. In combination with a garment pressing machine having a head, a buck, a buck steam valve, and means including a main lever for lowering the head into pressing position upon the buck, the improvement comprising a rod swivelly mounted at its lower end upon the main lever for vertical movement upon movement of the lever, a cross shaft rotatably mounted on the machine in upward spaced relation to the main lever, a rocker arm engaged to said cross shaft, a tube swivelly mounted at its upper end to said rocker arm and depending therefrom, said tube being open at its lower end for receiving the upper portion of the rod for slidable engagement therewith,

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means connecting said cross shaft and said buck steam valve for operation of said valve consequent to rotation of the cross shaft, and interengageable means provided on said tube and rod for selectively limiting relative movement therebetween on operation of the main lever whereby on continued movement of the rod beyond the point of engagement of the interengageable means movement will be transmitted to the tube for rotating the cross shaft.

9. In combination with a garment pressing machine having a head, a buck, a buck steam valve, and means including a main lever for lowering the head into pressing position upon the buck, the improvement comprising a rod mounted at its lower end upon the main lever for vertical movement upon movement of the lever, a cross shaft rotatably mounted on the machine in upward spaced relation to the main lever, a rocker arm engaged to said cross shaft, a tube mounted at its upper end to said rocker arm and depending therefrom, said tube being open at its lower end for receiving the upper portion of the rod for slidable engagement therewith, means connecting said cross shaft and said buck steam valve for operation of said valve consequent to rotation of the cross shaft, said tube having a longitudinally extending aperture, said rod having a plurality of vertically aligned bores in radial alignment with the tube aperture, a stop pin selectively positionable in said bores on said rod for outward radial projection through the aperture of the tube for limiting relative movement between said rod and tube by abutting engagement against the lower margin of the aperture, whereby continued movement of the rod subsequent to such engagement, through operation of the main lever, will cause transmission of motion to the tube for rocking the rocker arm to rotate the cross shaft.

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