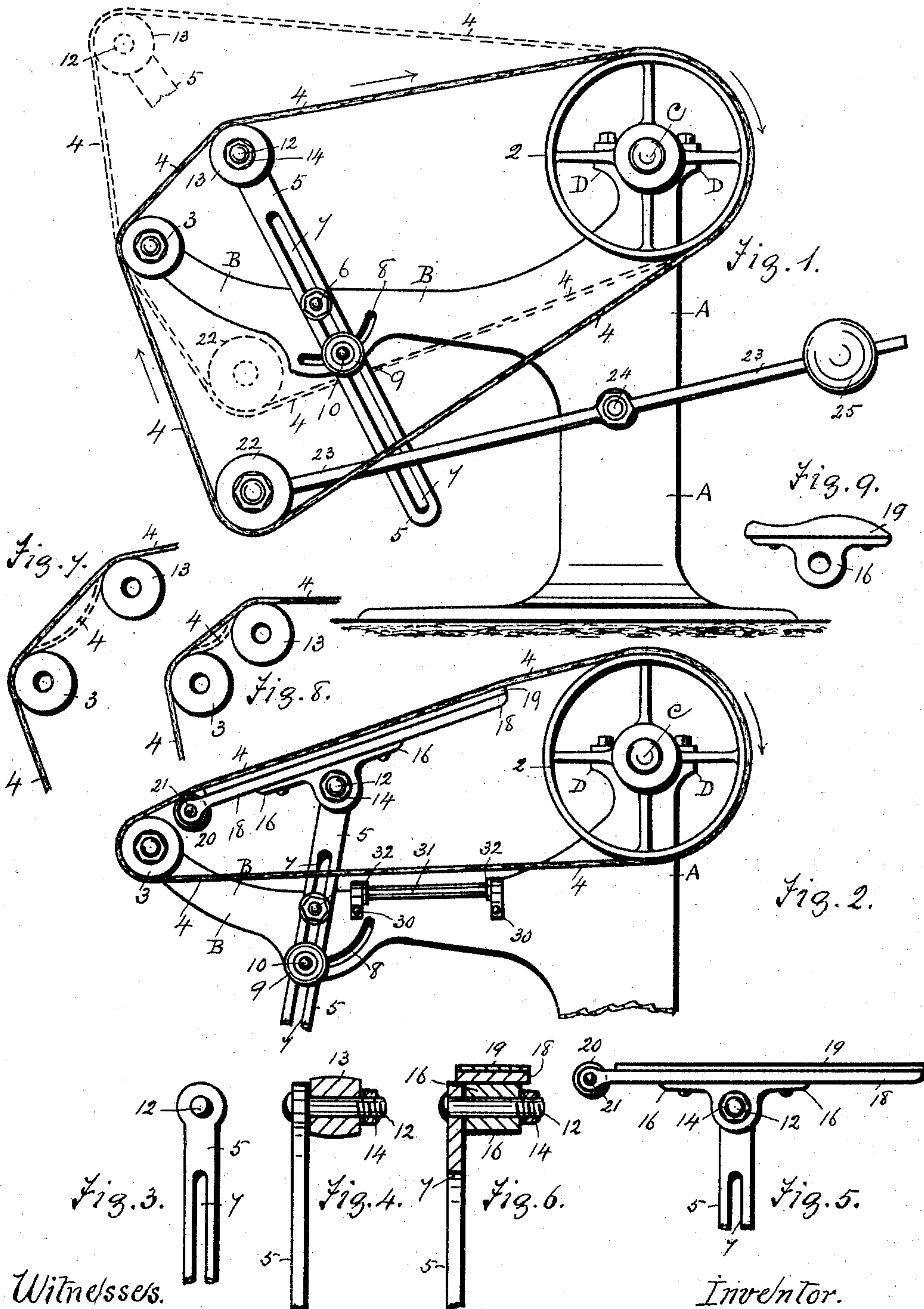


No. 759,995.

PATENTED MAY 17, 1904.

D. V. HODD.
SANDPAPERING MACHINE.
APPLICATION FILED MAY 7, 1903.

NO MODEL.



Witnesses.
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UNITED STATES PATENT OFFICE.

DONALD VALENTINE HODD, OF HAMILTON, CANADA.

SANDPAPERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 759,995, dated May 17, 1904.

Application filed May 7, 1903. Serial No. 156,042. (No model.)

To all whom it may concern:

Be it known that I, DONALD VALENTINE HODD, a citizen of Canada, residing at Hamilton, in the county of Wentworth, in the Province of Ontario, Canada, have invented new and useful Improvements in Sandpapering-Machines, of which the following is a specification.

My invention relates to improvements in sandpapering-machines in which an endless belt of suitable sandpapering fabric is capable of revolving on certain pulleys suitably mounted on a stationary frame and adapted to adjustment to varying positions, whereby various kinds of fine work may be sandpapered.

The objects of my invention are, first, to provide a sandpapering-machine which shall be adapted to various kinds of fine sandpapering work; second, to provide means whereby the sandpapering-belt may be adjusted to varying positions to suit varying designs of work, and, third, to afford facilities for the proper adjustment of parts of the machine to effect the disposition of the sandpapering-belt. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the sandpapering-machine referred to. The broken lines indicate varying positions of the sandpapering-belt to which the same may be adjusted. Fig. 2 is a side elevation of the upper part of the machine, showing the slidable belt-adjusting arm with an upper bracket having pivotal connection thereto to support said belt for surface sandpapering. Fig. 3 is a detail side elevation of the upper part of the belt-adjusting arm. Fig. 4 is a detail front elevation of the upper part of the adjusting-arm with loosely-connected pulley. Fig. 5 is a detail side elevation of the upper part of the adjusting-arm with the surface bracket and belt-pad pivotally connected thereto. Fig. 6 is a detail front elevation of Fig. 5 of the drawings, said bracket being in section through the center thereof. Fig. 7 is a detail side elevation of the two front pulleys of the machine positioned as in Fig. 1 of the drawings, together with a part of the sandpapering-belt

thereof, the broken lines of the belt between the pulleys indicating one of the various circling depressions or concaves to which the sandpapering-belt may be subjected when work is pressed on said part of belt. Fig. 8 is a similar view as Fig. 7 of the drawings, the pulley of the adjusting-arm, together with the arm, being adjusted to a forward position near to the front pulley of the machine in order that a quicker depression or concave of the belt may be attained, as shown in broken lines. Fig. 9 is a side elevation of the detached bracket with curved pad on its upper surface.

Similar characters refer to similar parts throughout the several views.

In the drawings the stationary frame of the machine is indicated by A, which has a forwardly-extending arm B stationary therewith. A transverse shaft C is mounted in suitable bearings D of said frame, and a pulley 2 is secured on the shaft C and revolves with said shaft. The forward end of the arm B of the frame has a suitably-mounted pulley 3, which is revolved by the large pulley 2, by means of the endless sandpapering-belt 4, which may be of desired breadth—say three to six inches wide, more or less, according to the size of the machine represented.

The slidable or belt-adjusting arm 5 is suitably fulcrumed to the arm B at 6 and is capable of slidable movement upward and downward, as well as forward and rearward, on the center fulcrum-pin 6 and fastened to desired position in order to have the belt 4 revolve as desired. The slot 7 in the arm 5 allows the several movements of said arm.

8 is a quadrant slot in the lower part of the arm B and below the fulcrum 6, and 9 is a manipulating-nut or wheel-handle on the central bolt 10 of the quadrant to fasten the arm 5 to the stationary arm B. The upper part of the adjustable arm 5 has a transversely-extending stud 12 secured thereto. A pulley 13 is mounted on the stud 12 to revolve thereon by means of the sandpapering-belt 4. The nut 14 on the end of the stud 12 retains the pulley 13 in position. It will be noticed in Fig. 1 of the drawings that it is possible to adjust the arm 5, together with its pulley 13, to a great

many varying positions, thereby varying the position of the belt 4. The broken lines of the pulley 13, together with the belt 4, indicate an elevated position of the belt, (shown in 5 Fig. 1 of the drawings,) this being one of many positions to which the belt may be adjusted. Other positions of many to which the belt may be subjected are shown in broken lines in Figs. 7 and 8 of the drawings and also in 10 Fig. 9 of the drawings when sandpapering different sizes of circular parts of wood or work.

In Figs. 2, 5, and 6 of the drawings is shown an adjustable bracket 16 on the stud 12 of the 15 arm 5. The bracket is capable of revolving movement on the stud by means of the nut 14 on the stud. Secured to the upper surface of the bracket 16 is a surface plate or plane 18, the upper surface of which has a flexible material 20 covering or pad 19, on which the under side of the sandpapering-belt engages when in operation, as shown in Fig. 2 of the drawings. The bracket 16 is used when surface sandpapering is required on large surfaces of work. 25 The bracket very materially supports the belt and prevents the same from sagging or drooping. To obviate and prevent any possible friction of the belt with the end of the pad 19 of the bracket 16, a roller or pulley 20 is provided, which revolves loosely in bearing 21 of 30 the plate 18, at the forward end thereof. The roller 20 is revolved by means of contact with the under side of the belt 4, as shown in Fig. 2 of the drawings. A similar roller 20 may 35 be applied at the opposite end of the plate 18, if desirable.

The bracket 16 may be adjusted to various angles relative to its adjusting-arm 5 and secured thereto.

40 The pad 19, as shown in Fig. 9 of the drawings, is one of many designs which may be used in connection with the arm 5 and the bracket 16. When pads or forms of a curved design similar to the one shown in Fig. 9 of 45 the drawings or other curves of varying patterns are used, the arm 5, together with the bracket 16, will be adjusted to a position near to the under side of the belt 4, yet free from contact with the belt.

50 A roller 31 is shown in Fig. 2 of the drawings supported by brackets 30, which are secured to the arm B of the frame A. The roller 31 is provided with end flanges 32 and is adapted to revolve in the stationary bearings 30. The roller 31 is adapted to have 55 work passed over it and underneath the belt 4. Piece after piece of work may be passed over this roller and beyond the machine, or the work may be passed to and fro over the 60 roller as desired. A tension-pulley 22 is provided on the lower part of the machine for the belt 4. The tension-pulley 22 is suitably mounted on the end of the lever 23, which is fulcrumed at 24 to the frame A and extends

beyond said frame to receive a slidable weight 65 25, which is adapted to slidable adjustment on the lever 23 for the purpose of allowing more or less weight to the tension-pulley 22, that more or less tension may be given to the belt 4 by means of the pulley 22 when the 70 belt is in operation and adjusted to other or varying positions for different kinds of fine sandpapering work, previously referred to.

A machine of the class described is most valuable to cabinet manufacturers and light 75 fine woodworking establishments generally.

Various changes in the form, proportion, and minor details of this invention may be resorted to without departing from the spirit and scope thereof. 80

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A sandpapering-machine comprising a frame, pulleys on said frame, a sandpapering-belt running over said pulleys, a pivoted lever, 85 a roller carried thereby bearing against the sandpapering-belt to tension the same, and means for adjusting at will the permanent tension of said lever on the sandpapering-belt, said lever being free to automatically 90 yield to vary the tension of the belt according to the work being performed.

2. A sandpapering-machine comprising a frame, pulleys journaled to the frame, a sandpapering-belt traveling around said pulleys, 95 a freely-swinging pivoted lever, a pulley on said lever bearing against the sandpapering-belt, and an adjustable counterweight on said lever for adjusting the permanent tension exerted by said lever and pulley on the sandpapering-belt. 100

3. In a sandpapering-machine, the combination with a frame, of a forwardly-extending arm on said frame, a pulley on said arm, a pulley on said frame, a sandpapering-belt 105 traveling over said pulleys and extending in a free stretch from one pulley to the other pulley, means for adjusting up or letting down the upper part of said sandpapering-belt intermediate said pulleys, and independent 110 means for tensioning the lower part of said sandpapering-belt.

4. In a sandpapering-machine, the combination with a frame and pulleys thereon, of a sandpapering-belt running over said pulleys, an adjusting-bar having a slot, a clamping member extending through said slot and connecting the bar to the frame, whereby the bar can be adjusted longitudinally of itself, and a connection between the bar and the 120 frame for accomplishing angular adjustment of said bar, comprising a curved slot and a clamping member for securing the bar.

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