F. SCHIMMEL.

SANDPAPERING MACHINE.

APPLICATION FILED NOV. 14, 1910.

1,025,836. **Patented May 7, 1912.**

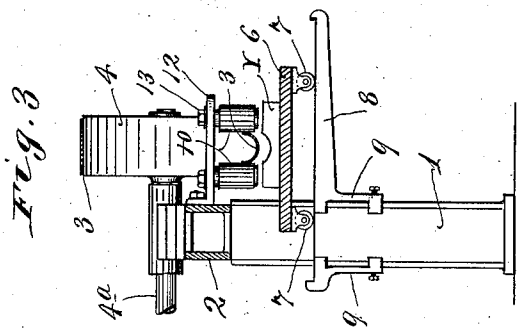

Fig. 3

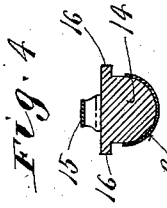

Fig. 4

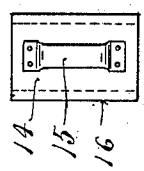

Fig. 5

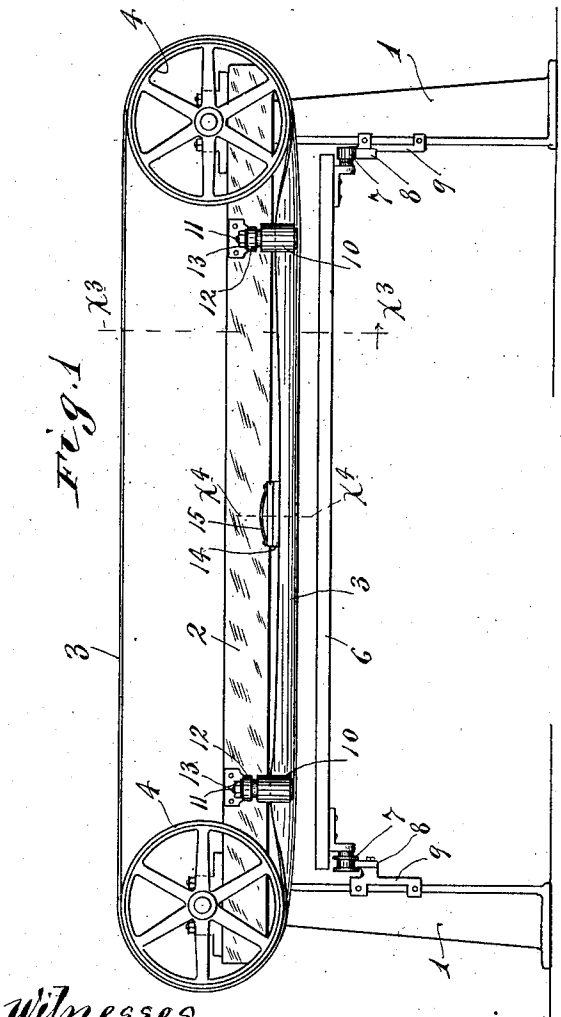

Fig. 1

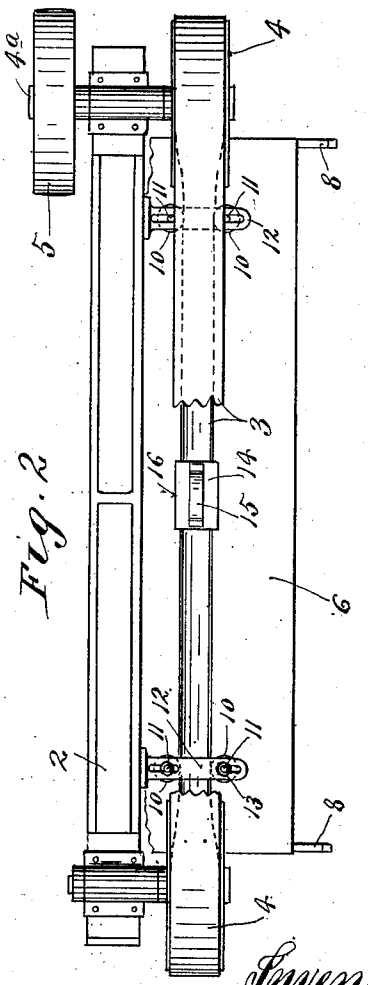

Fig. 2

Witnesses
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UNITED STATES PATENT OFFICE.

FRIDOLIN SCHIMMEL, OF FARIBAULT, MINNESOTA.

SANDPAPERING-MACHINE.

1,025,836. Specification of Letters Patent. Patented May 7, 1912.

Application filed November 14, 1910. Serial No. 592,242.

To all whom it may concern:

Be it known that I, FRIDOLIN SCHIMMEL, a citizen of the United States, residing at Faribault, in the county of Rice and State of Minnesota, have invented certain new and useful Improvements in Sandpapering-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide an improved sanding or polishing machine and, to this end, it consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

The special object of the present invention is to provide an improved mechanism whereby a sanding belt may be given a transversely rounded or convex form, so that it may be used to sand or finish wooden strips or bodies having channels or rounded grooves.

In the accompanying drawings which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view in side elevation, showing the sanding machine embodying my invention; Fig. 2 is a plan view of the machine, with some parts broken away; Fig. 3 is a transverse vertical section taken on the line x^3 x^3 of Fig. 1; Fig. 4 is a detail in transverse section on the line x^4 x^4 of Fig. 1; and Fig. 5 is a plan view of the presser block shown in Fig. 4.

The framework of the machine may take various forms, but, as shown, is made up of end pedestals 1 and a horizontal connecting portion 2.

The sanding belt 3 is arranged to run over pulleys 4 mounted in suitable bearings on the frame body 2. One of the pulleys 4 is a driven pulley and is shown as provided with a projecting shaft 4^a having a pulley 5 over which a power-driven belt, not shown, is adapted to be run to drive the sanding or finishing belt 3.

Located below the lower run of the belt 3 is a work table 6 shown as provided with wheels 7 that run upon horizontal guide rails 8 of supporting brackets 9 that work adjustably on the frame pedestals 1. The work table 6 is thus mounted for movements from front toward the rear and vice versa of the machine immediately below the belt and it is, of course, adapted to support the work which is to be sanded or finished by the belt.

The smooth back of the belt 3 is arranged to run on the pulleys 4 and its sanded or finishing surface is located on its outer or exposed face. To give the lower run of the belt a channel-shaped form, it is run between two pairs of laterally spaced idle guide rollers 10, with which the edges of the sanded face of the belt directly engage. These guide rollers 10 are preferably made of wood and they are journaled on trunnion bolts 11, the upper ends of which work through slots of supporting brackets 12 that are rigidly secured to the frame body 2. The rollers 10 are thus mounted for lateral adjustments toward and from each other, so as to vary the form of the transverse cross section of the lower run of the belt, and the upper ends of the trunnion bolts 11 are provided with nuts 13 for adjustably securing the said bolts to the brackets 12. As is evident, the less the distance between the cooperating rollers 10, the greater will be the cross sectional concavity of the lower run of the belt. Hence, by adjustment of the rollers 10, the lower run of the belt may be given approximately the desired cross sectional form, or, in other words, may be made to correspond approximately to the form of the groove in the wooden strip or article which is to be finished by the belt. In Fig. 3, the grooved wooden strip, which is to be finished by the belt, is indicated by the character Y. The work table 6 should be so vertically adjusted that the lower run of the belt will not engage the work until slightly depressed; and the said belt is adapted to be depressed and forced into engagement with the groove in the strip Y by means of a presser block 14. This presser block is preferably operated by hand and its lower body portion is given a convex or rounded cross section corresponding to the form of the groove in the strip Y, so that, when the belt is depressed into the groove, it will fit the groove and finish the same without changing the form of the groove. To adapt the presser block 14 to be operated by hand, it is shown as provided with a hand loop or strap 15, and to protect the operator's hand

from the rough upturned edges of the belt 3, the said presser block is shown as provided both at its front and rear edges with projecting guard flanges 16 that project beyond the edges of the bent portion of the belt.

What I claim is:

1. The combination with a sanding or polishing belt and means for guiding and moving the same, of a pair of laterally spaced guide rollers engageable with the edges of the said belt to give the same a channel-shaped form, and which guide rollers are adjustable toward and from each other, substantially as described.

2. The combination with a sanding or polishing belt and means for guiding and moving the same, of a pair of laterally spaced guide rollers engageable with the edges of said belt, with their opposing faces spaced apart a less distance than the normal width of the belt, whereby a part of the said belt is given a channel-shaped form.

3. The combination with a sanding or polishing belt and means for guiding and moving the same, of two pairs of laterally spaced guide rollers engageable with the edges of said belt at different points longitudinally thereof, the opposing faces of the rollers of each pair being spaced apart a distance less than the normal width of said belt, whereby the said belt is given a channel-shaped form at points between the two pairs of rollers.

In testimony whereof I affix my signature in presence of two witnesses.

FRIDOLIN SCHIMMEL.

Witnesses:
J. W. Le Cone,
Robert Mee.