

No. 833,726.

PATENTED OCT. 23, 1906.

E. J. BEIN.
SANDPAPERING MACHINE.

APPLICATION FILED OCT. 20, 1905.

3 SHEETS—SHEET 1.

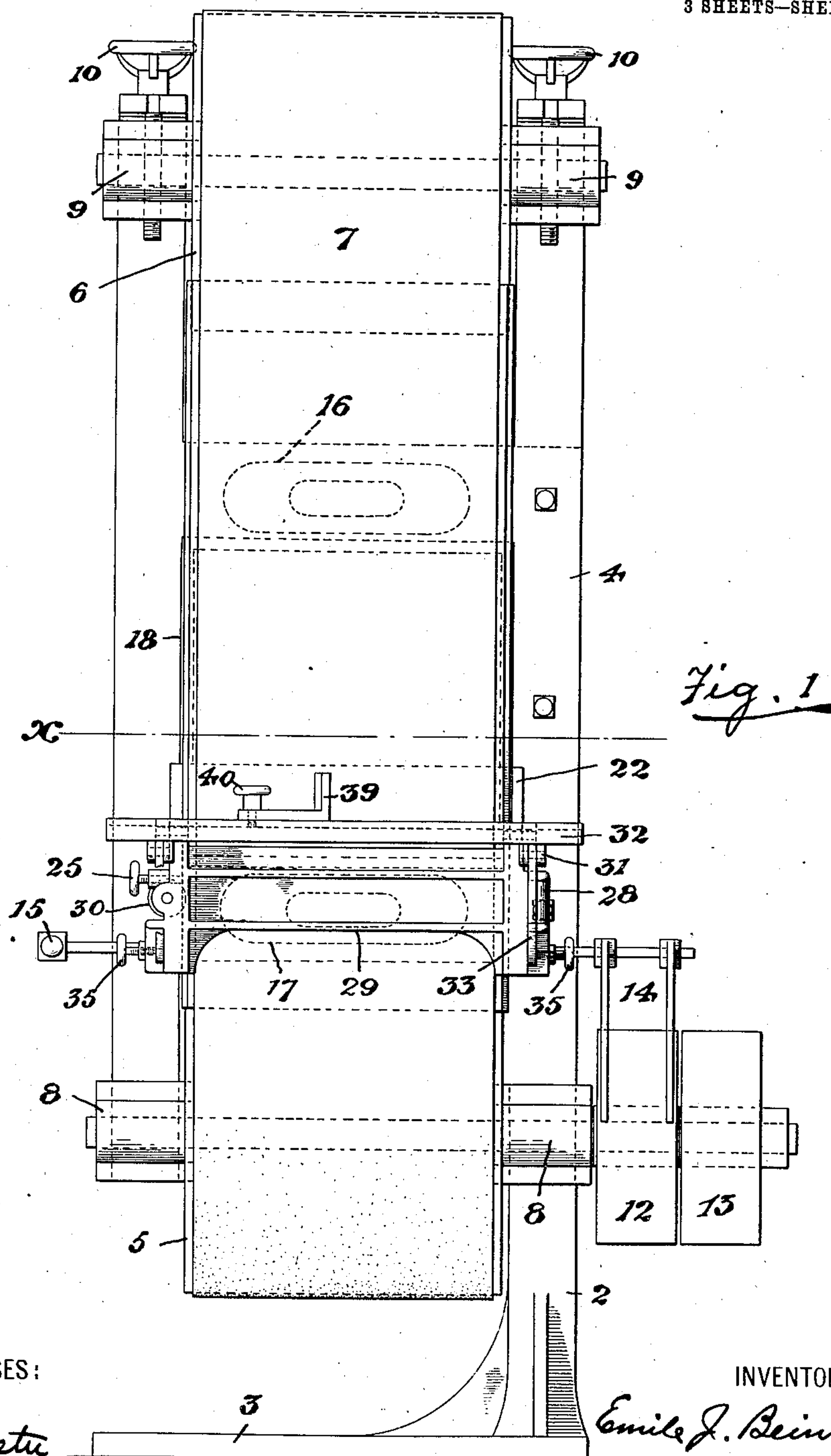


Fig. 1

WITNESSES:

R. Lancaster

Russell M. Everett

INVENTOR:

Emile J. Bein,

BY

Charles H. Peck,
ATTORNEY.

No. 833,726.

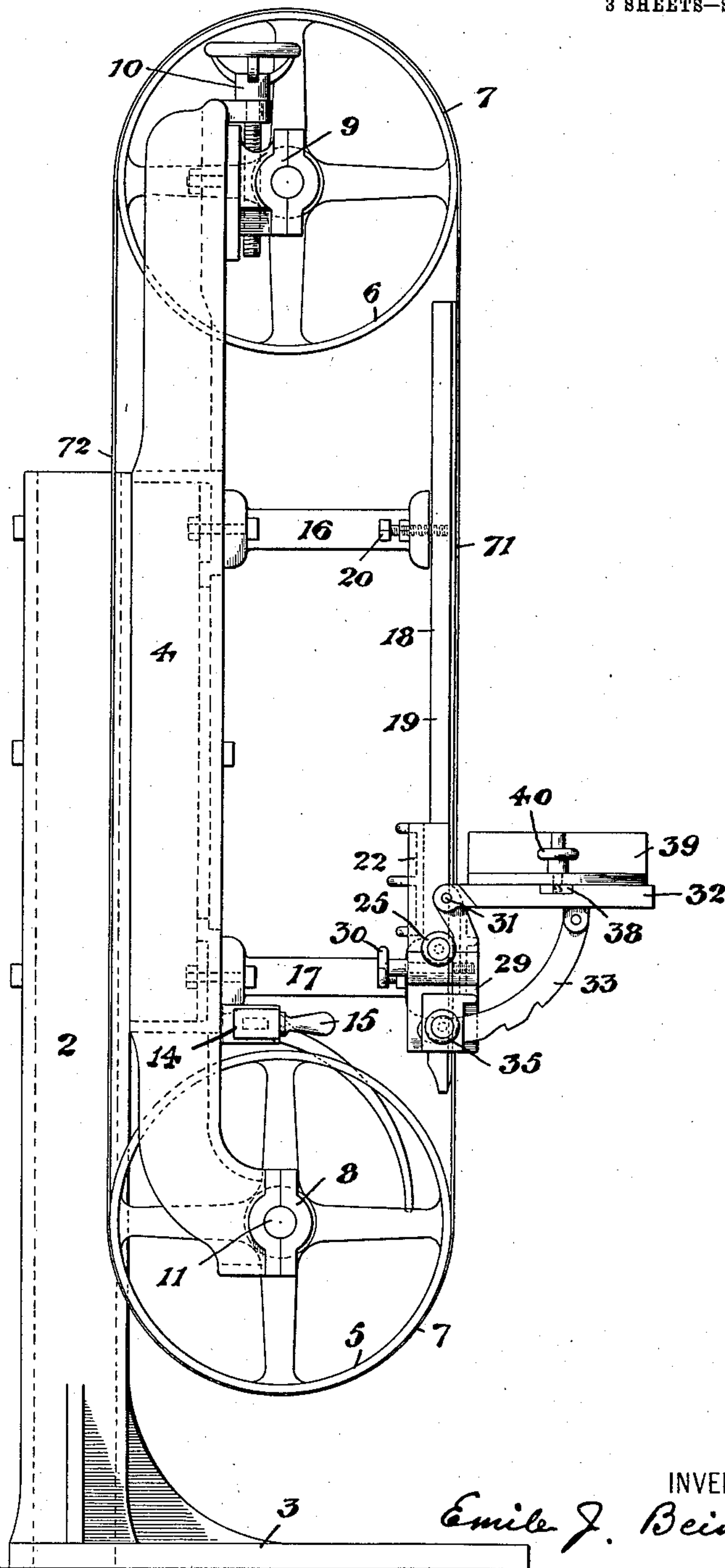
PATENTED OCT. 23, 1906.

E. J. BEIN.
SANDPAPERING MACHINE.

APPLICATION FILED OCT. 20, 1906.

3 SHEETS—SHEET 2.

Fig. 2.



WITNESSES:

Ralph Lancaster

Russell M. Everett

INVENTOR:

Emile J. Bein,

BY

Charles H. Pell

ATTORNEY.

No. 833,726.

PATENTED OCT. 23, 1906.

E. J. BEIN.
SANDPAPERING MACHINE.

APPLICATION FILED OCT. 20, 1905.

3 SHEETS—SHEET 3.

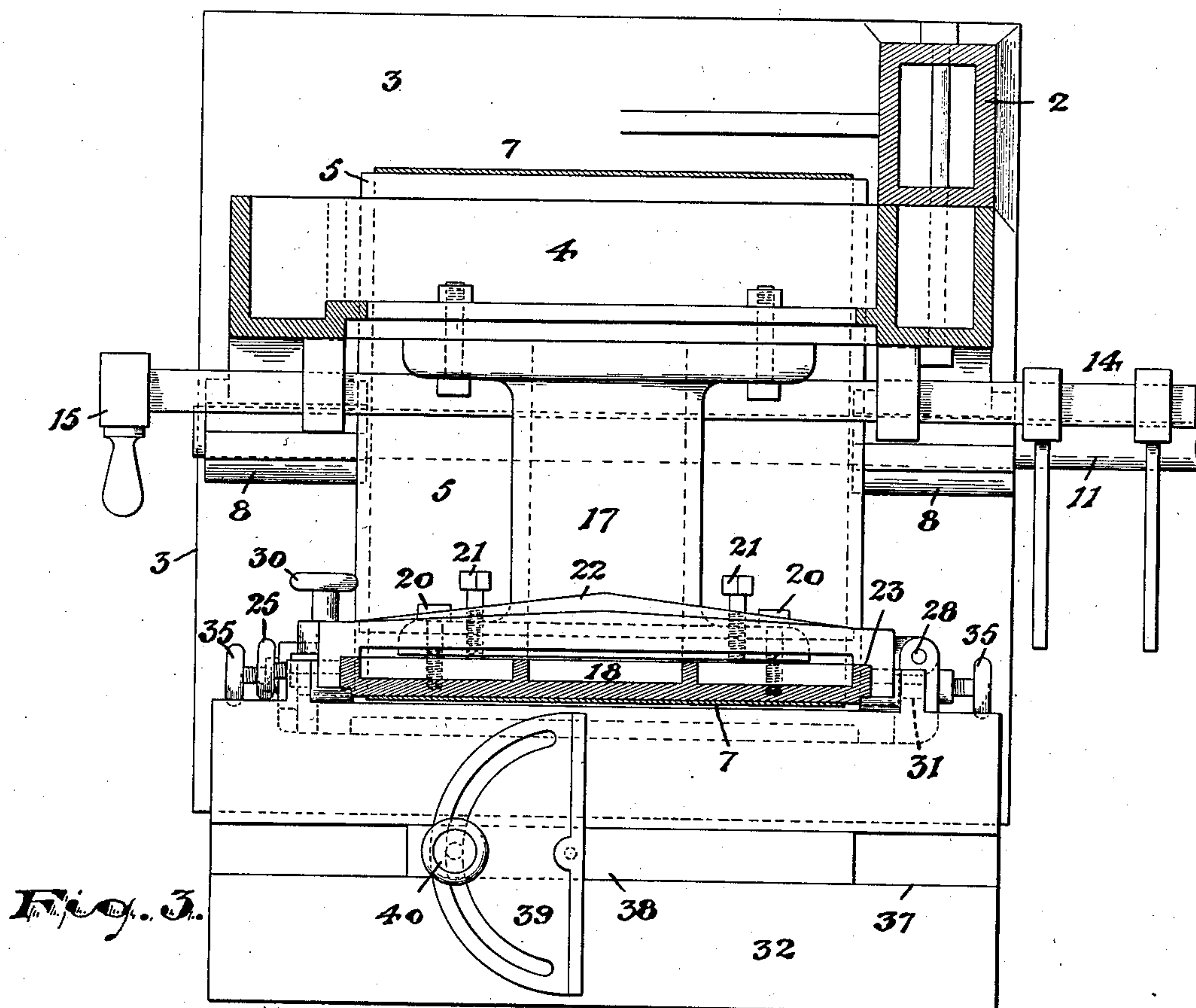


Fig. 3.

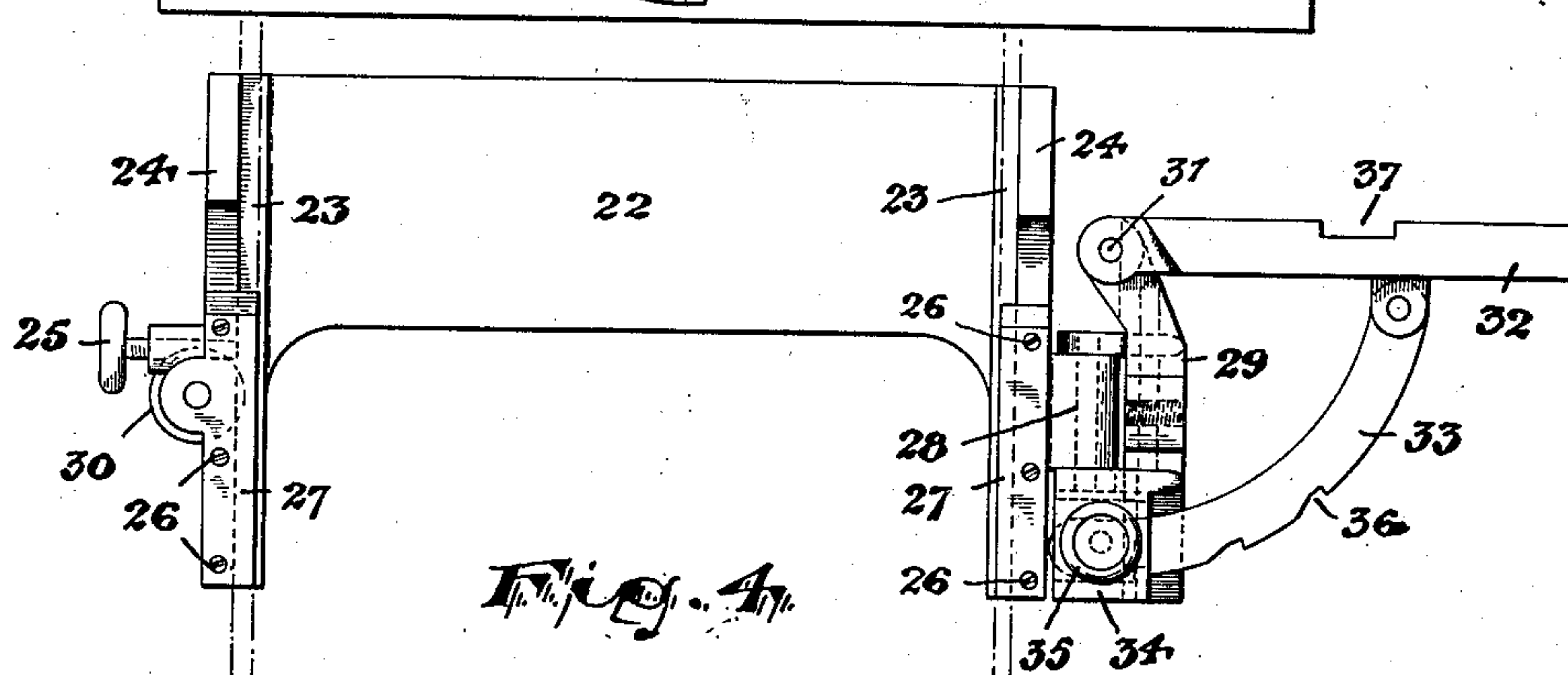


Fig. 4.

WITNESSES:

Ralph Lancaster
Russell M. Everett

INVENTOR:

Emile J. Bein,
BY
Charles H. Fell,
ATTORNEY.

UNITED STATES PATENT OFFICE.

EMILE J. BEIN, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE ADAMITE SURFACE MACHINE CO., OF NEWARK, NEW JERSEY, A CORPORATION OF NEW YORK.

SANDPAPERING-MACHINE.

No. 833,726.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed October 20, 1905. Serial No. 283,587.

To all whom it may concern:

Be it known that I, EMILE J. BEIN, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, 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, reference being had to the accompanying drawings, and to numerals of reference marked thereon, which form a part of this specification.

The objects of this invention are to provide a sandpapering-machine in which the belt-pulleys are arranged in vertical plane, to secure improved means for supporting said pulleys, to thus provide a horizontally-disposed table for supporting the work while it engages a vertically-disposed sandpaper-belt, to enable such work-table to be adjusted to different positions and to be swung out of the way to facilitate the application and removal of the belt, to obtain improved means for adjusting said table, to secure a flexible or yielding and otherwise idle portion of the belt which can be employed for sandpapering irregular surfaces, and to obtain other advantages and results, some of which may be hereinafter referred to in connection with the description of the working parts.

The invention consists in the improved sandpapering-machine and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like numerals of reference indicate corresponding parts in each of the several figures, Figure 1 is a front elevation of my improved sandpapering-machine, and Fig. 2 is an elevation of the same from the side at which the belt is applied. Fig. 3 is a horizontal cross-section on line *x*, Fig. 1; and Fig. 4 is a detail front elevation of the work-table detached from its slideway and having its hinged shelf open.

In said drawings, 2 indicates an upright standard provided with a broad foot or base 3, and 4 is a rectangular frame adapted to be bolted at one of its side pieces flatwise against the upright 2, as shown in the draw-

ings. Said frame 4 provides at the upper and lower portions of its front side bearings for drums 5 6, over which runs the broad sandpapering-belt 7. Preferably one of said bearings, as the lower one, 8, is fixed, while the other, as the upper one, 9, is slidable upon the frame 4 and adapted to be adjusted by hand-screws 10 to secure the desired tension of the belt. The shaft of the lower drum 5 is extended at one end beyond the supporting-frame 4 to carry fast and loose driving-pulleys 12 13, adapted to receive a belt which may be controlled by a shifter 14, slidably mounted upon the frame 4 and provided with a handle 15 for the operator.

Upon the front side of the frame 4 are horizontally-projecting posts 16 17, which carry at their outer ends a platen 18, which is adapted to lie against the inner side of one upright portion 71 of the belt 7 so as to form a support therefor and enable the work to be pressed thereagainst. This platen extends for nearly the entire distance between the pulleys 5 6 and is slightly wider than the belt, so as to form at its edges slideways 19. Preferably said platen 18 is secured to the posts 16 17 by screws or bolts 20, threaded into the platen, and other screws 21, threaded only into the posts and adapted to abut against the platen 18 and act as lock-screws.

It will be understood that the work is adapted to be pressed against the vertical belt 7, which is in turn supported by the platen 18, and in order to support from beneath such work I mount upon the platen 18 a work-table which extends around said platen to lie at the front of the belt. The body portion 22 of the table extends across the inner side of the platen 18 and at its opposite ends provides transverse surfaces 23, adapted to engage the marginal slideways 19 of the platen and outer flanges 24, adapted to overlap the edges of the platen. Through one of these ribs extends a set-screw 25, which is adapted to clamp said body portion 22 of the work-table at any desired point of the platen, and also upon said ribs or flanges 24 are removably secured, as by screws 26, keeper-plates 27, adapted to overlies the edges of the front side of the platen and secure the said body portion of the work-table thereto, while permitting it to slide freely up and down. To one end of said portion 22 is hinged, as at 28, upon a vertical hinge-pin, a front

member 29, which is adapted to lie in front of the platen 18 and belt 7 and be detachably secured at its free end to the body portion 22, as by means of a screw 30. This front member 29 of the table has hinged to its upper edge upon horizontal hinge-pins 31 31 a shelf 32, which is thus adapted to lie at its inner edge closely adjacent to the sandpaper-belt 7 and to be tipped up or down to lie at any desired angle to said belt. Preferably said angular adjustment of the shelf 32 is secured by curved arms 33 33, each hinged at one end to the table 32 and sliding through slideways 34 of the front member 29, set-screws 35 being employed to clamp said arms in any desired position. Said arms may also be notched, as at 36, if desired.

Preferably the top of the table 32 is longitudinally grooved, as at 37, to receive a slide-bar 38, which carries upon itself a rotatable rest 39, which can be set in any angular position, a screw 40 serving to clamp both rest and slide-bar, as is common in the art.

It will be seen that by means of the table thus described a piece of work can be securely and firmly held in almost any desired position with reference to the belt 7, while at the same time the table can be swung entirely out of the way to permit free removal and replacing of the belt 7 with respect to its drums. Furthermore, by the general construction of my machine it will be seen that the work is supported entirely independent of the belt 7, so that the abrading effect of the said belt depends only upon the pressure which is employed. More uniform and perfect work can thus be attained. Again, it should be noted that one upright portion, as 72, of the belt 7 is by my improved con-

struction left wholly free and exposed so as to be flexible or yielding. This portion 72 of the belt can therefore be employed for smoothing or polishing curved and irregular surfaces which would not fit against the platen 18. The capacity of my machine for various kinds of work is therefore greatly increased.

Having thus described the invention, what I claim as new is—

1. A sandpapering machine comprising a supporting-frame, a pair of drums on the frame one above the other, a sandpapering-belt running on the drums, a platen close behind one of the vertical portions of the belt, and flanking the belt, a table in front of the belt, a hinge pivotally connecting the table to the platen at one side, and means on the other side of the platen to detachably secure the table in its working position.

2. A sandpapering-machine comprising a supporting-frame, a pair of drums on the frame one above the other, a sandpapering-belt running on the drums, a platen close behind one of the vertical portions of the belt, and flanking the belt, a table in front of the belt, a hinge pivotally connecting the table to the platen at one side, means on the other side of the platen to detachably secure the table in its working position, means for tilting the table vertically and means for holding the table in its vertically-adjusted position.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of October, 1905.

EMILE J. BEIN.

Witnesses:

CHARLES H. PELL,
RUSSELL M. EVERETT.