No. 865,557. PATENTED SEPT. 10, 1907.

D. F. ARBURN.

POLISHING MACHINE.

APPLICATION FILED APR. 26, 1907.

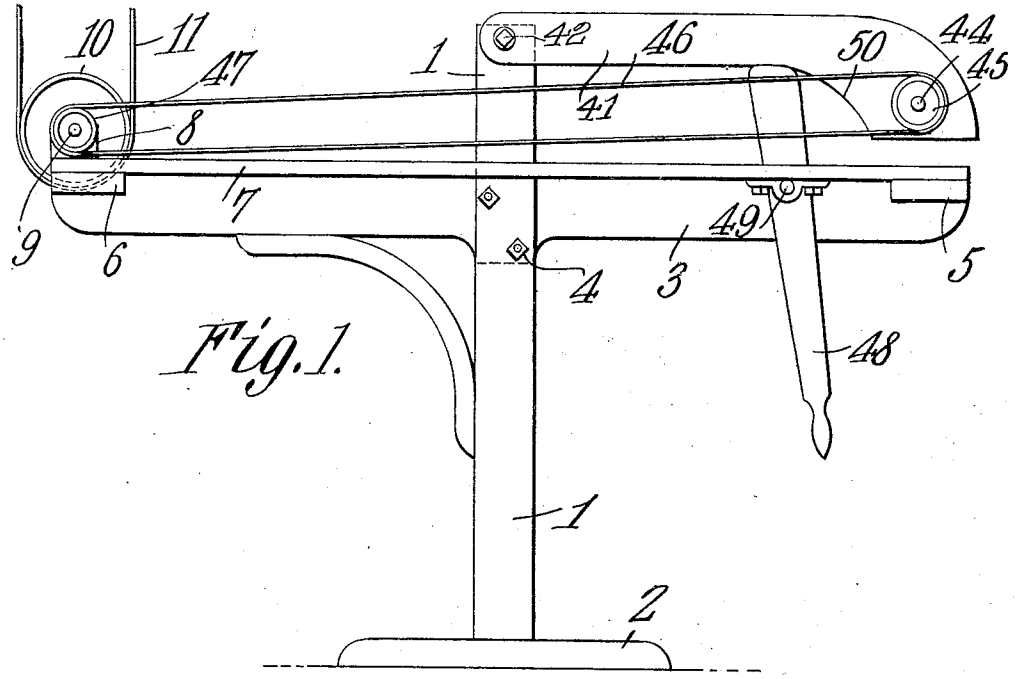


Fig. 1.

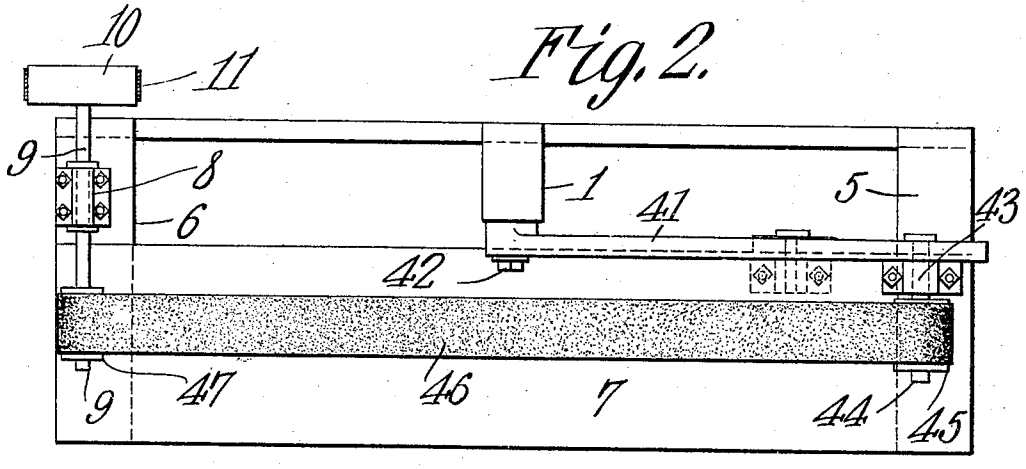


Fig. 2.

WITNESSES:

E. F. Stewart

Herbert D. Lawson.

David F. Arburn,

INVENTOR.

By C. A. Snow & Co.

ATTORNEYS

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DAVID F. ARBURN, OF SOMERVILLE, INDIANA.

POLISHING-MACHINE.

No. 865,557. Specification of Letters Patent. Patented Sept. 10, 1907.

Original application filed May 2, 1906, Serial No. 314,881. Divided and this application filed April 26, 1907. Serial No. 370,416.

To all whom it may concern:

Be it known that I, DAVID F. ARBURN, a citizen of the United States, residing at Somerville, in the county of Gibson and State of Indiana, have invented a new and useful Polishing-Machine, of which the following is a specification.

This invention relates to polishing machines and is a division of an application filed by me on May 2, 1906, Serial No. 314,881.

The object of the invention is to provide a machine primarily designed for use in connection with woodwork, especially furniture.

It is the principal object of the invention to adapt the same for cleaning and smoothing surfaces and for polishing bowed work such as the fronts of dressers and other furniture.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a front elevation of a machine embodying the present improvements; and Fig. 2 is a plan view thereof.

Like characters of reference designate corresponding parts in all of the figures of the drawing.

For the support of the operating parts of the present machine, there is a frame made up of a standard 1 rising from a suitable bed or base 2 which is bolted or otherwise rigidly secured to the floor. Below the top of the standard there is a substantially horizontal frame bar 3 rigidly secured to the standard midway of the ends of the bar by means of suitable fastenings 4 preferably bolts. Upon the ends of the frame bar are cross bars 5 and 6 which carry a table 7 at one side of the standard.

Upon the cross bar 6 and in alinement with the standard there is a suitable bearing 8 in which rotates a substantially horizontal drive shaft 9 projecting at opposite ends of the bearing and disposed transversely of the machine. That end of the shaft which is opposite the table is provided with a drive pulley 10 for engagement by a suitable drive bolt 11 whereby power is applied to the machine.

Disposed above the table 7 is a vertically swinging arm 41 which is fulcrumed upon the adjacent side of the standard near the top thereof, as at 42, and is provided at its free end and upon its outer side with a bearing 43 in which rotates a stub shaft 44 projecting outwardly from the arm. A pulley 45 is fixed upon this shaft so as to rotate therewith and is engaged by an abrasive belt 46 which is driven by a pulley 47 carried by the adjacent end of the drive shaft 9. By preference, the pulley 45 is provided with a facing of felt or other yieldable material.

An open upstanding lever 48 is located below the arm 41 in the same vertical plane thereof and is fulcrumed intermediate of its ends upon the adjacent edge of the table as shown at 49, the lower end of the lever being in reach of a foot of the operator standing at the adjacent front end of the machine, its upper end lying in frictional engagement with the under side of the swinging arm whereby the latter may be elevated by manipulation of the lever.

As best indicated in Fig. 1 of the drawings, it will be noted that the under side of the swinging arm is a downwardly inclined and preferably concaved portion 50 with which the rounded or convexed upper end of the lever frictionally engages. When the lower end of the lever is pushed away from the operator, the arm will be elevated and the abrasive belt 46 thereby moved upwardly from the table. When the lever is pulled rearwardly or towards the operator, the swinging arm and the abrasive belt will be lowered.

In using the belt 46, the work may be placed upon the table beneath the belt, the latter having been previously elevated by means of the lever 48, after which the belt may be lowered into engagement with the work, the latter being pushed back and forth by hand upon the table so as to have all portions thereof acted upon by the belt. The entire weight of the belt and the arm 41 may be brought to bear upon the work, or the arm may be partially supported by the lever 48 so as to apply only a portion of the weight to the work according to the character of the abrasive action desired. By reason of the fact that the arm 41 is capable of swinging vertically the belt will automatically accommodate itself to bowed or curved work, such for instance as fronts of dressers and other furniture. If desired, the work may be applied by hand to the upper ply of the abrasive belt 46 whenever such an operation may be desirable.

What is claimed is:

A polishing machine having a frame provided with a table, a drive element at one end of the table, a standard projecting above the table, a vertically movable arm pivotally connected to the standard, said arm having a depending end portion, a revoluble element carried by said end portion, an endless abrasive belt mounted upon said elements, and an upstanding elevating lever pivotally connected to the table and frictionally engaging the under side of the arm and its depending portion, said depending portion being eccentrically disposed in relation to the pivot of the lever.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

DAVID F. ARBURN.

Witnesses:
LEWIS KEMPER,
SAMUEL C. BARRETT.