

(No Model.)

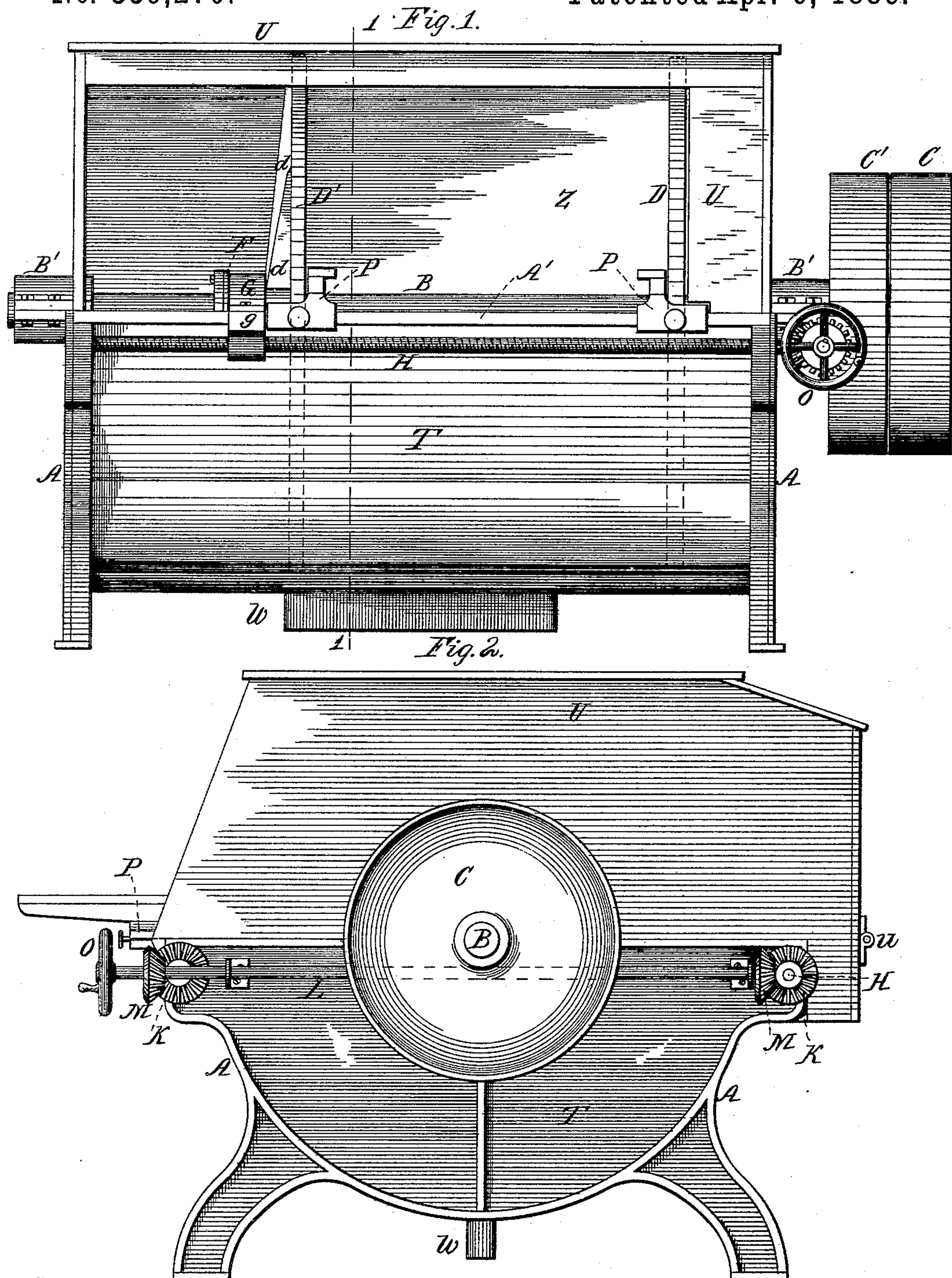
2 Sheets—Sheet 1.

L. C. CRON.

DRAWER FITTING MACHINE.

No. 339,270.

Patented Apr. 6, 1886.



Witnesses:  
W. C. Jirdiniston

E. W. Pecton

Inventor  
Lucius C. Cron  
by *Stim & Peak*  
Attorneys.

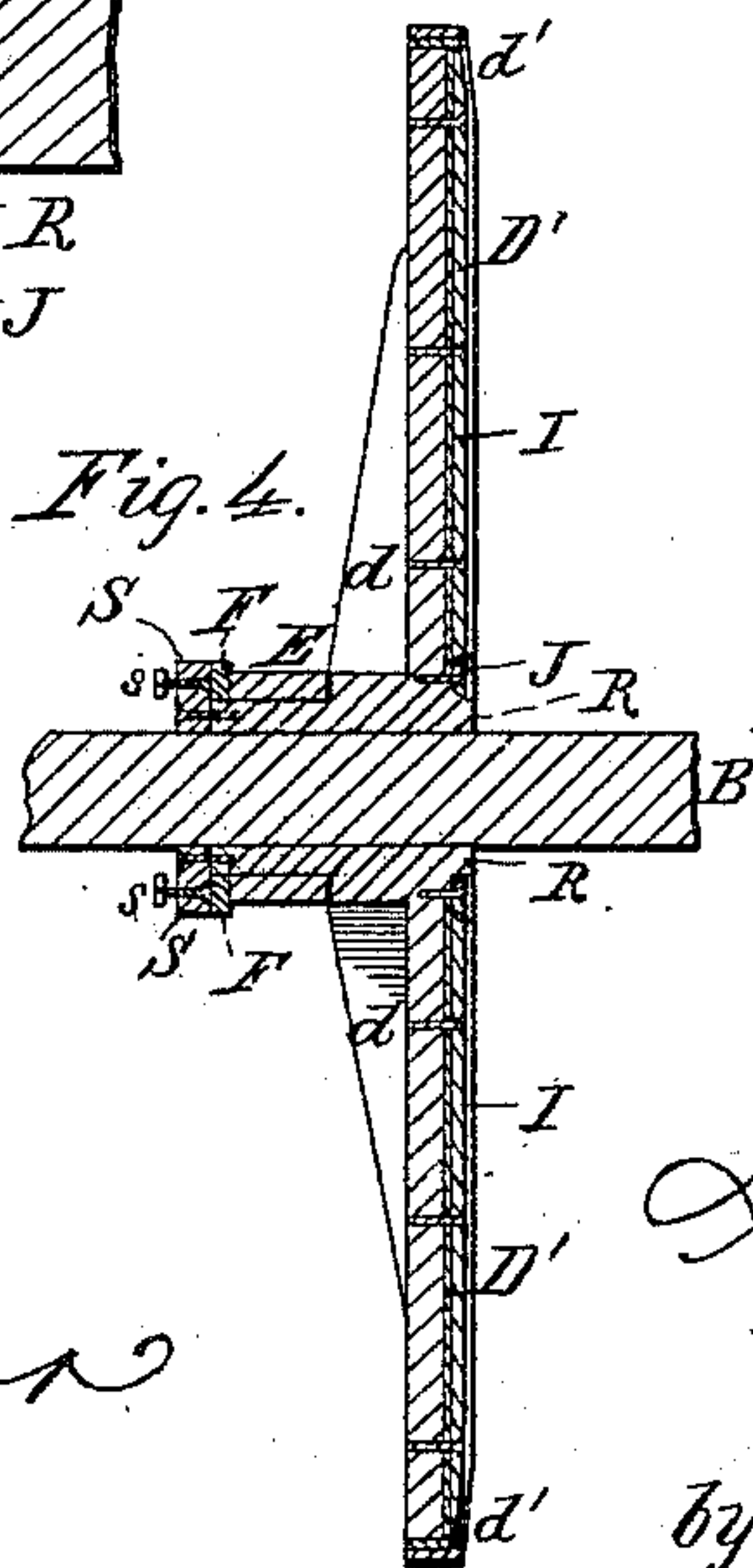
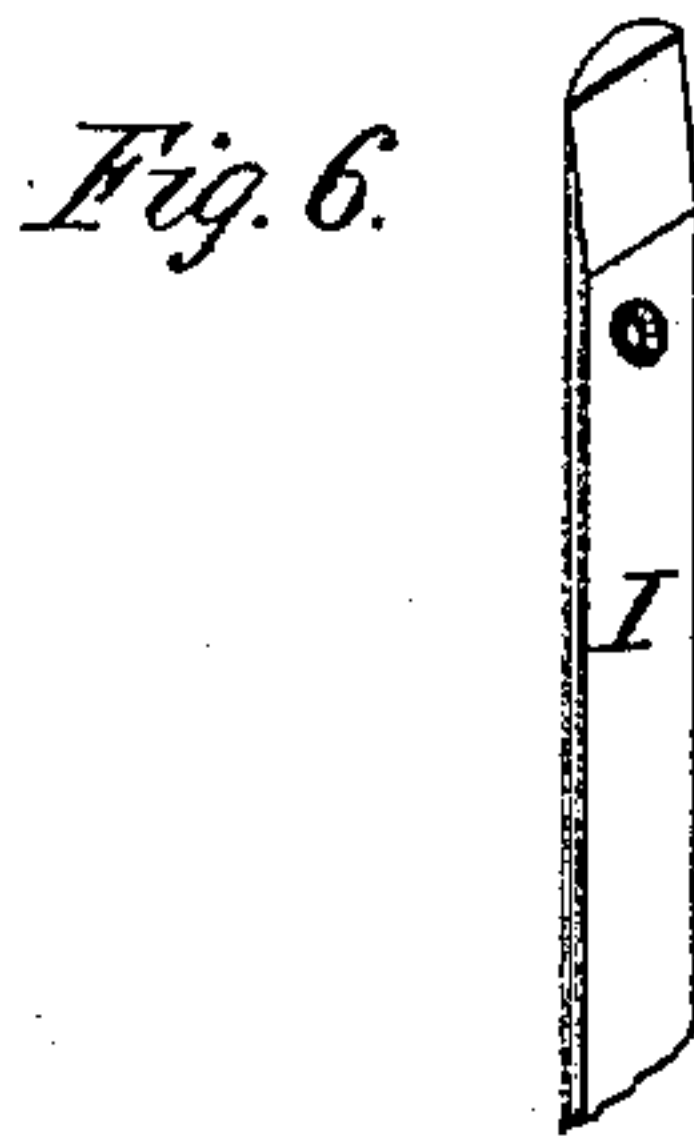
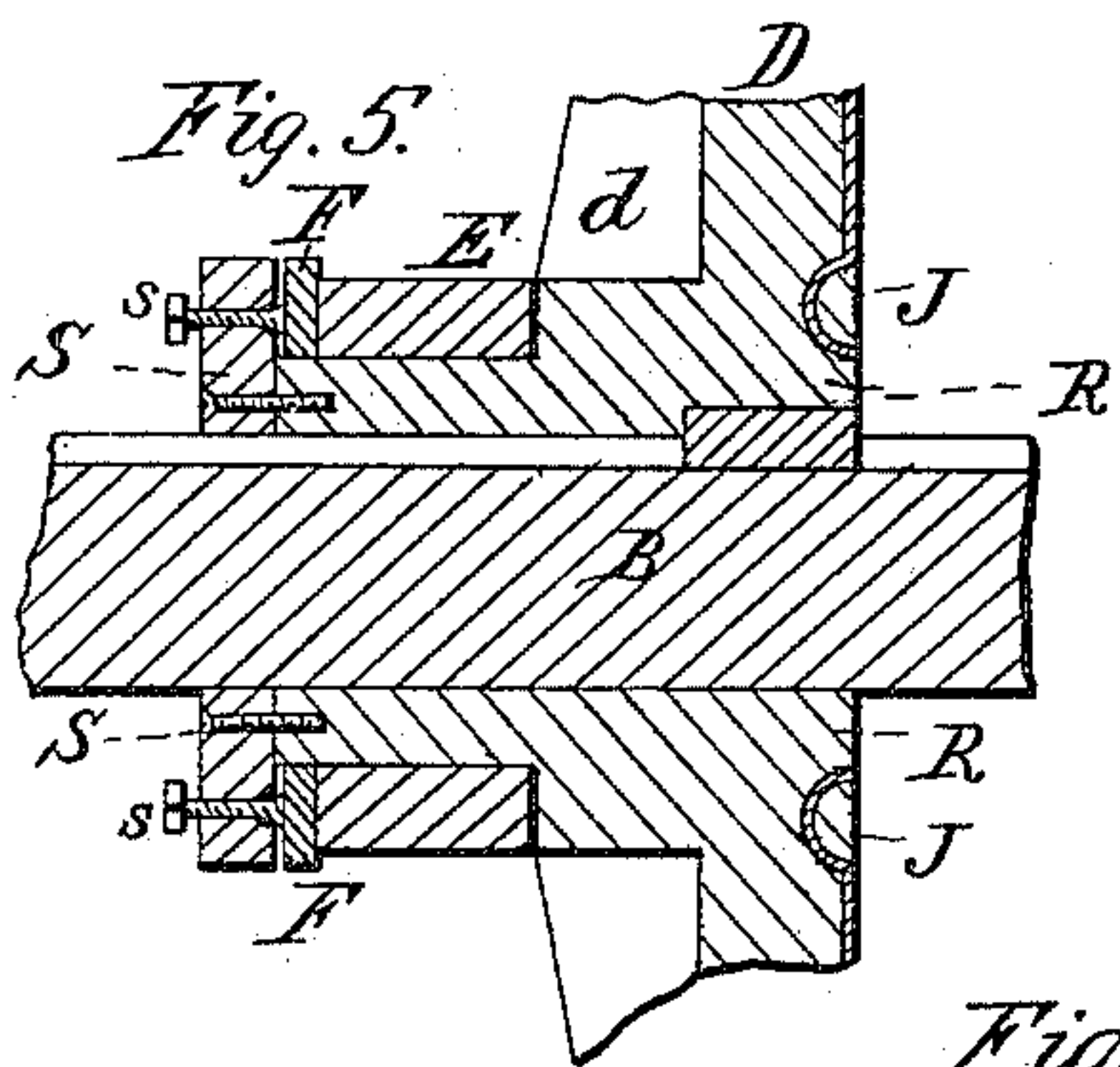
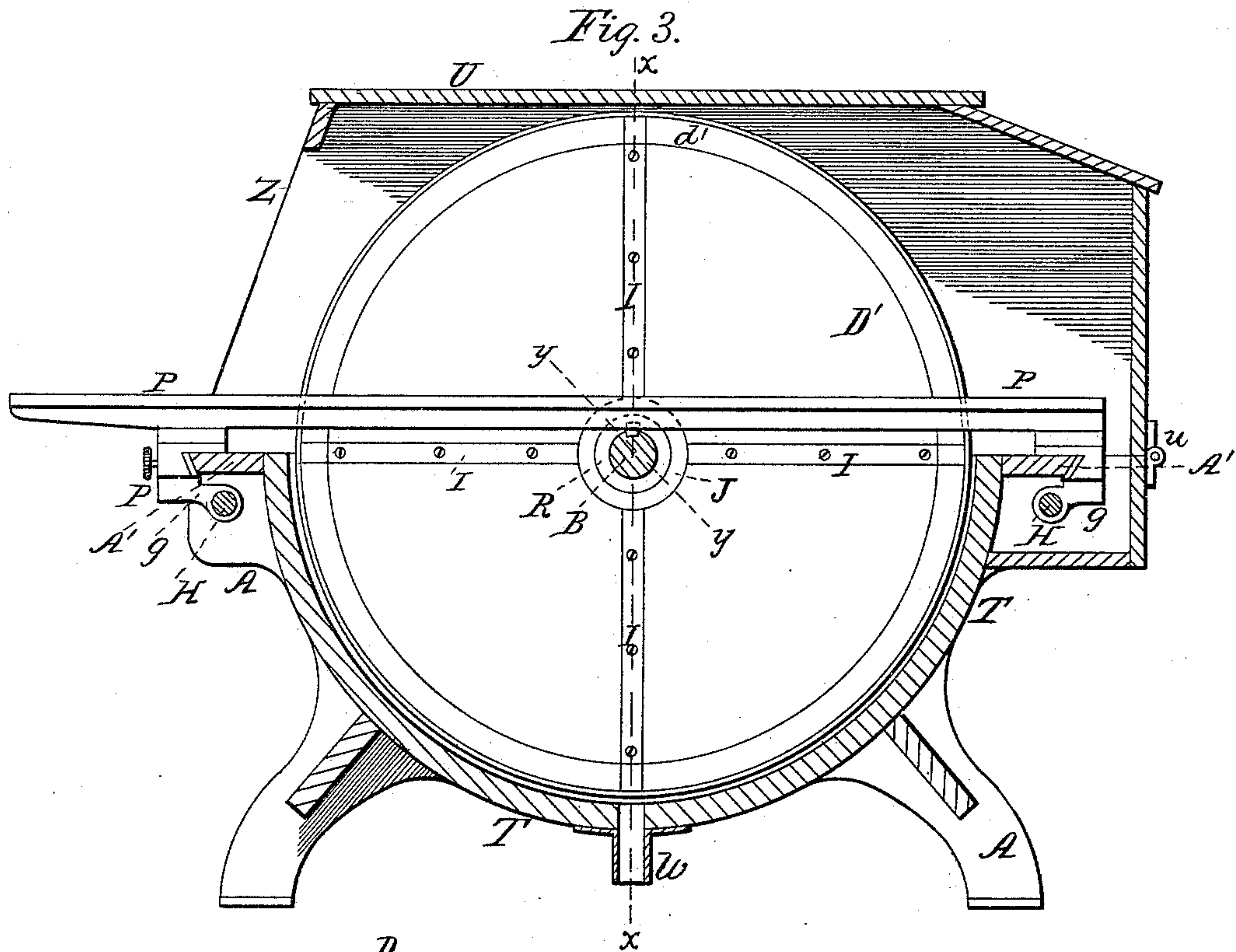
(No Model.)

2 Sheets—Sheet 2.

L. C. CRON.  
DRAWER FITTING MACHINE.

No. 339,270.

Patented Apr. 6, 1886.



Witnesses:  
W. C. Jirdinston.

*Edw. Pector*

Inventor:

*Lucius C. Cron*

by *Stump & Pech*

*his Attorneys.*



# UNITED STATES PATENT OFFICE.

LUCIUS C. CRON, OF PIQUA, OHIO.

## DRAWER-FITTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 339,270, dated April 6, 1886.

Application filed November 6, 1884. Serial No. 147,311. (No model.)

*To all whom it may concern:*

Be it known that I, LUCIUS C. CRON, a citizen of the United States, residing at Piqua, in the county of Miami and State of Ohio, have  
5 invented certain new and useful Improvements in Wood Dressing and Fitting Machines, of which is the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this  
10 specification.

My invention relates to that class of machines in which the wood is dressed by passing it between disks having a grinding or smoothing surface; and it consists in the improvements hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a front elevation of my improved wood-dressing machine, partly in section. Fig. 2 is an  
20 end elevation of the same. Fig. 3 is a vertical sectional view through the line 1 1 of Fig. 1. Fig. 4 is a cross-section of the disk, taken through the line *x x* of Fig. 3. Fig. 5 is a cross-section of the central portion of the disk, taken through the line *yy* of Fig. 3. Fig. 6 is  
25 a detail view of one of the clamps for holding the sand-paper on the disk.

The same letters of reference are used to indicate identical parts in all the figures.

A is a supporting-frame, of any convenient  
30 construction, upon which is journaled a shaft, B.

B' B' represent a simple and convenient form of journal-boxes. On one end of the shaft B is attached the drive-pulley C.

35 C' is a loose pulley, to which the belt is shifted when the machine is not running.

On the shaft B are keyed two or more disks, D D', which revolve with the shaft B. One of the disks--in this instance D'--is not attached fixedly to the shaft B, but moves laterally along it toward or from the other disk, D, the shaft being provided with a longitudinal groove, in which the disk is keyed, so that  
40 it always revolves with the shaft, but is free to move laterally.

*d d* are strengthening-ribs on the disks. The adjustable disk D' is provided with an elongated hub, E, Figs. 4 and 5, on the end of which is a small disk or circular plate, F, exactly parallel with the face of the disk and a  
50 little larger than the hub E. Encircling this hub E, and held in place by the disk or plate

F, is a carrier, G, which extends across the frame A, resting upon the sides A' and arranged to slide on said frame. The ends of  
55 this carrier G are provided with brackets or arms *g*, with an internal threaded opening, through which pass shafts or rods H H at both front and rear of the machine. These shafts are parallel with the shaft B, and are screw-threaded, and at one end are provided with  
60 beveled gears K K. At the end of the frame is a cross-shaft, L, with two beveled gears, M M, to correspond with the gears K K. The cross-shaft L is revolved by the hand-wheel  
65 O, which, through the beveled gears M and K, revolves the shafts H H, and these, by means of the screw-threads, move the carrier G laterally along the sides of the frame A', which carries with it the disk D'. By simply  
70 revolving the wheel or lever O in one direction the disk D' is moved toward the disk D, and by revolving it in the other direction the disk D' is moved away from the disk D, the carrier holding it always parallel to the disk D.

75 P P are movable guides or rests, which extend across the frame and rest on the sides A'. They are used to support the stuff being fed to the machine. The grinding-disks being adjusted to the proper width and revolved by  
80 the pulley C, the material to be dressed is placed on the guides P P and pushed between the disks, when it is dressed even and true and to the exact size desired.

My improved machine is especially adapted  
85 for such cabinet-work as bureau and table drawers, and the like, whose ends are always more or less uneven and untrue. The disks having a wide surface and being exactly parallel, make the ends perfectly even, true, and plumb.

90 By means of the lever or crank wheel O the disks may be moved apart or closer together while in operation, or they may be fixed in their distance apart so that each piece dressed will come out exactly the same size. As the  
95 pieces are not of uniform size before being dressed, the larger ones would not feed between the disks without enlarging the space. To avoid this I make the disks beveled on their face toward their periphery, as shown at *d' d'*  
100 in Fig. 4. This bevel may extend back as far as desired in proportion to the size of the disks or the work to be done. By this means the space between the outer faces or edges of the



disks where the material is first fed in is greater than that between their centers, and pieces of slightly-different sizes may be fed in without changing the relative position of the disks.

In order to supply a grinding-surface to the disks I usually use sand-paper cut into a circular sheet a little larger than the disk. The disk is provided with radial grooves I I, and one or more circular grooves, J, preferably semicircular in cross-section, as shown at J, Fig. 5. In these grooves fit semicircular strips or clamps, Fig. 6, held in place by screws. The sheet of sand-paper being laid on the disk, the clamps are pressed into the grooves, inclosing a part of the paper. They are then screwed down tight, and are made small enough to fit into the grooves, so that their outer surface is below the surface of the disk. The screw-heads are of course sunken in the clamps. The edges of the sheet of sand-paper are then pressed over the edge or periphery of the disk and clamped down by a rim or tire.

It is usual in sandpapering-machines to place a cushion or backing between the disk and sand-paper of felt or rubber to make the polishing surface somewhat yielding. This is necessary when they are used merely for polishing; but my machine is designed to grind the surfaces down even and plumb. I prefer, therefore, for that purpose an unyielding grinding-surface, and the sand-paper is applied directly to the disk without any intermediate cushion. When the disks are set, each piece ground between them comes out dressed exactly to the same size and perfectly square and plumb.

The disk D' may be braced in position relative to the shaft B by the following arrangement: A circular plate, S, is bolted on the end free of the hub E, so as to extend peripherally above the reduced portion of said hub. The ring F is interposed between said peripherally-projecting portion and the end face of the carrier G. Around the plate S, near its edges, are screw-threaded openings, which receive set-screws, whose inner ends are flat and abut against the plate F on the hub E. If the disk D' gets out of plumb from uneven wear or other cause, by tightening the set-screws s it is braced up in exact plumb with the plate S, and at exact right angles to the shaft B, and hence exactly parallel with the other disk, D.

In operation this class of machines develop a quantity of fine dust, which if left free be-

comes very annoying and injurious in the shop. I therefore inclose the frame A in an envelope or jacket, T, and cover the machine with a close hood or cap, U, hinged to the frame, as at u, so that it may be lifted up, leaving open merely a door in front, as seen at Z, through which the material is fed between the disks. At the bottom of the chamber thus formed is an opening, W. By attaching an ordinary exhaust-fan to this opening a draft is produced through the machine from the door Z to the exit-opening W, and all the dust carried off, thus keeping it out of the shop, and also keeping the machine constantly clean and free.

I am aware that sand-paper disks have been used for polishing and dressing wood, and do not broadly claim their application to that use; but,

Having thus fully described my invention, I claim—

1. In a wood-dressing machine, the combination of shaft B, disks D D', and carrier G, shafts H H', and means, substantially such as described, for revolving said shafts H H', whereby the carrier may be moved to move the disk D' up on the shaft B to or from the disk D, substantially as set forth.

2. In a wood-dressing machine, the combination, with shaft B and disk D', mounted thereon and provided with a flanged hub, of carrier G, plate S, and set-screws s, substantially as set forth.

3. In a drawer-fitting machine, the combination, with a shaft, B, and two disks mounted thereon, to present vertical parallel faces, of a hood or jacket having exhaust-openings, and an opening in one side, whereby the drawer is passed to be acted on by said vertical disk-faces, and adjustable guides P P, located adjacent to said drawer-opening, substantially as set forth.

4. In a wood-dressing machine, the combination, with a supporting frame or case having an opening, through which the drawers are to be introduced, of the vertical disks provided with parallel grinding or reducing faces, and each having an annular marginal portion beveled toward the periphery of the disk, to form conjointly a flaring reducing portion, substantially as set forth.

LUCIUS C. CRON.

Witnesses:

CHARLES F. CLARKSON,  
GEORGE E. KOESTER.