

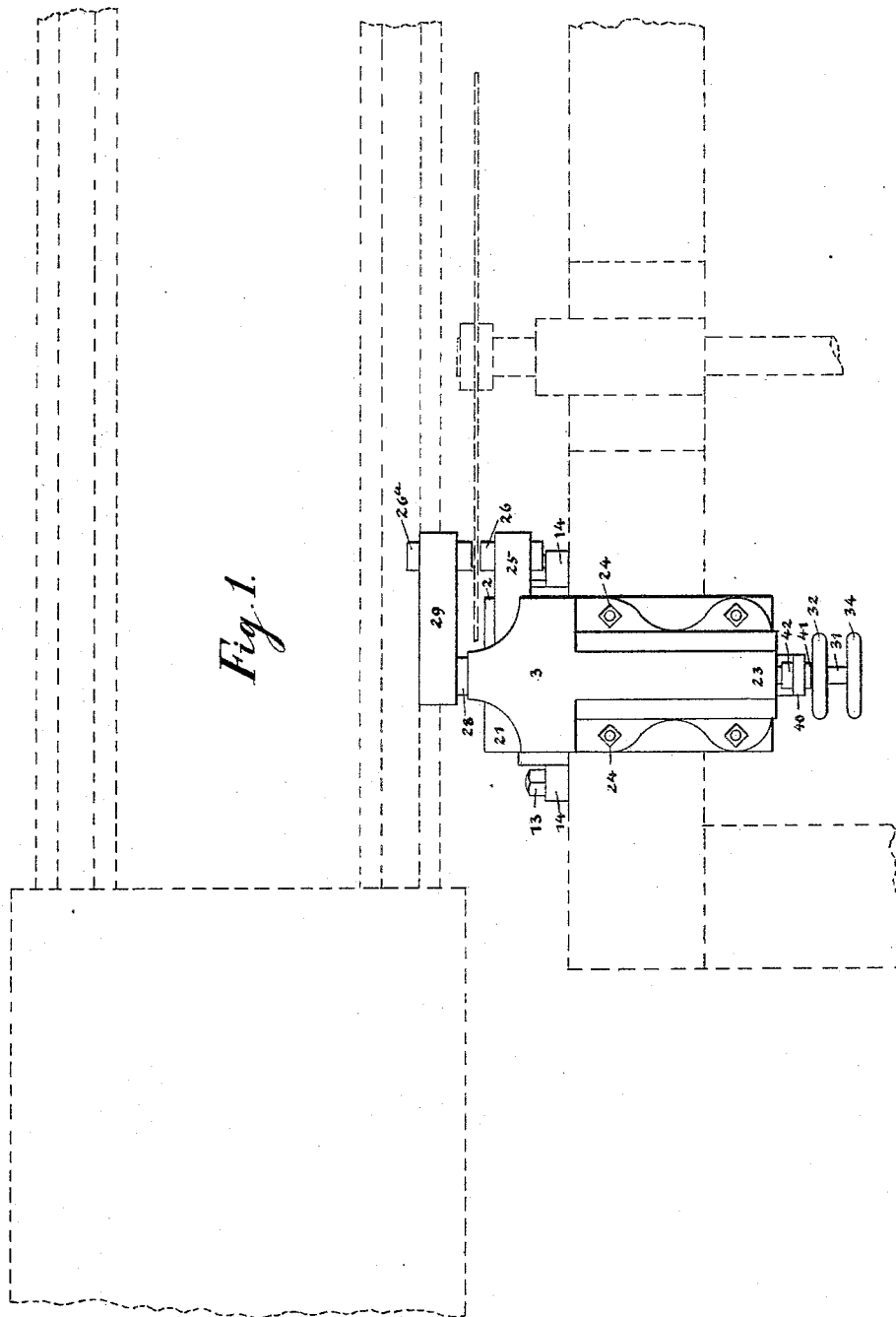
(No Model.)

3 Sheets—Sheet 1.

J. O. MORROW.  
SAW GUIDE.

No. 381,635.

Patented Apr. 24, 1888.



WITNESSES:

D. C. Reusch,  
C. Sedgwick.

INVENTOR:

INVENTOR:  
J. O. Morrow  
BY: Munn & Co.

ATTORNEYS.

(No Model.)

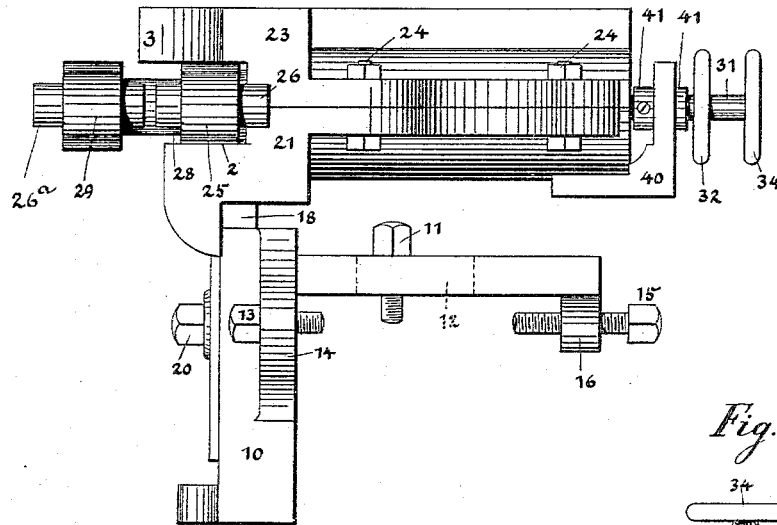
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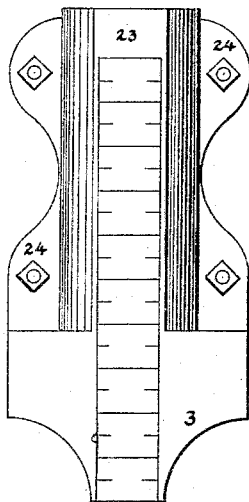
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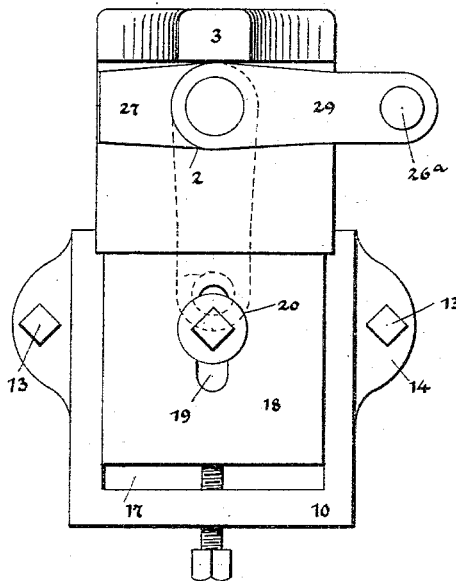
*Fig. 2.*



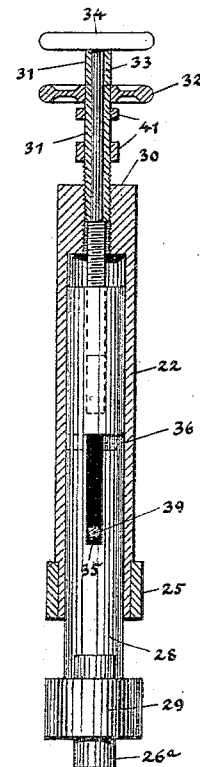
*Fig. 4.*



*Fig. 3.*



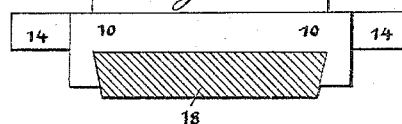
*Fig. 5.*



WITNESSES:

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*Fig. 6.*



INVENTOR:

J. O. Morrow.  
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(No Model.)

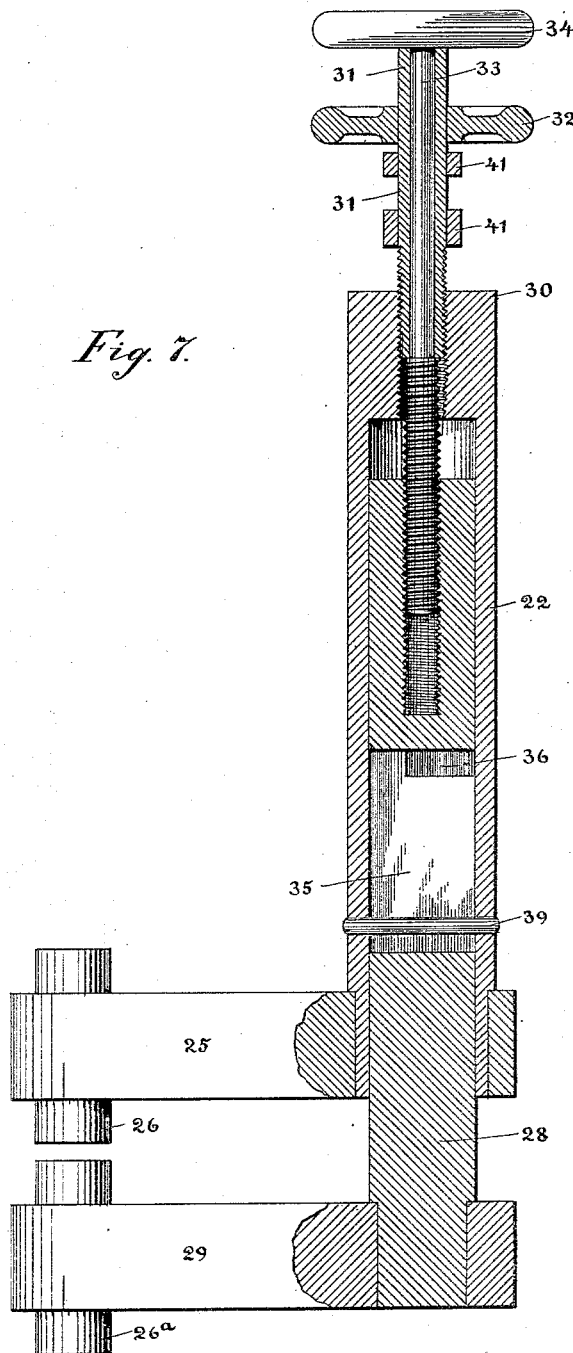
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*Fig. 7.*



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOHN OSWALD MORROW, OF THOMAS MILLS, TENNESSEE.

## SAW-GUIDE.

SPECIFICATION forming part of Letters Patent No. 381,635, dated April 24, 1888.

Application filed July 2, 1887. Serial No. 243,264. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN OSWALD MORROW, of Thomas Mills, in the county of Anderson and State of Tennessee, have invented a new and Improved Saw-Guide, of which the following is a full, clear, and exact description.

This invention relates to a novel form of saw-guide, wherein the guiding arms are so arranged that they may be reversed so as to be used in right or left hand mills, and wherein the outer guiding-arm is arranged so that it may be turned to a position to permit of the removal of the saw from its arbor, a proper adjustment of the several parts of the guide being provided for, as will be hereinafter more fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of a left-hand mill, representing the same in outline as it appears when arranged in connection with my improved form of guide. Fig. 2 is a view of the guide, representing the same as it appears when adjusted for use in connection with a right-hand mill. Fig. 3 is an end view of the guide, parts being adjusted as represented in Fig. 2. Fig. 4 is a view of the top of the guide, the scale formed thereon being clearly shown. Fig. 5 is a central sectional view of the shafts arranged in connection with the guide-arms. Fig. 6 is a view of the seat with the movable section of the guide removed; and Fig. 7 is a longitudinal section, on an enlarged scale, of the device as shown in Fig. 5 and at right angles thereto.

In constructing such a saw-guide as the one illustrated in the drawings above referred to I provide a seat, 10, which is connected to the husk by bolts 11, which pass through slots 12, that are formed in the upper plate of the seat, set-screws 13 being arranged to engage with lugs or ears 14, formed at the sides of the vertical plate of the seat and to bear against the forward face of the husk, while a rear set-screw, 15, passes through a lug, 16, and engages at the rear of the husk, the arrangement being such that the seat may be raised or low-

ered to suit the height of the saw-arbor, or shifted in or out, as required, by the thickness of the saw-collar.

In the front of the vertical plate of the seat 10 there is an undercut groove, 17, in which there is fitted a correspondingly-shaped leg, 18, which supports the movable sections or portions of the guide, this leg being provided with a central slot, 19, through which there is passed a set-screw, 20, which engages with the seat, this construction being adopted in order that the movable sections of the guide will not be liable to fall against and injure the saw should either one of the fastening devices become loosened.

To the upper end of the leg 18 there is secured the lower section, 21, of a bearing for a hollow shaft, 22, the upper section of the bearing being shown at 23, and the two sections being connected by bolts 24, as clearly shown in the drawings. To the forward end of the shaft 22, I connect an arm, 25, which carries a guiding pin or bearing, 26, an extension, 27, being arranged in connection with the arm 25, and within the shaft 22, I mount a shaft, 28, which carries an arm, 29, which arm in turn is provided with a second guiding pin or bearing, 26<sup>a</sup>.

In the rear end of the shaft 22, I fit a plug, 30, that is centrally apertured and threaded, in order that it may be engaged by a thread formed upon the shank 31 of a hand-wheel, 32, this shank 31 being hollow, in order that it may receive the shank 33 of a hand-wheel, 34, said shank 33 being threaded to engage with a threaded aperture formed at the inner end of the shaft 28. In the shaft 28, I form a longitudinal slot, 35, and transversely-extending slots 36, and through the longitudinal slot so formed I pass a pin, 39, which is rigidly connected to the shaft 22.

The shank 33 is supported by a bracket, 40, which is connected to the bearing-section 21, and upon either side of the bracket 40 there is arranged a collar, 41, which collars are rigidly connected to the shank 31, and thus hold said shank against lateral displacement, so that when the hand-wheel 32 is turned to advance its threaded shank the hollow shaft 22 will be forced outward, while, when a reverse motion

is imparted to the hand-wheel, the shaft will be drawn inward, the shaft 28 being forced inward or outward by turning the hand-wheel 34.

Upon the section 21 of the bearing of the shaft 22 there is formed a shoulder, 2, upon which the arm 25 and its extension 27 rest, this shoulder being overlapped by a projection, 3, that is formed upon the bearing-section 23, from which construction it will be seen that the arm 25 will be held against any rotary movement, which, of course, would be the case with the shaft 22, the arm being rigidly connected to said shaft; and as the shaft 28 is connected to the shaft 22 by means of a pin, 39, it would be held against any rotary movement, except at times when the shaft was drawn clear forward, so that the pin 29 will register with the slots 36, in which case a quarter-turn might be given to the shaft 28, thus moving the arm 29 to the position in which it is shown in dotted lines in Fig. 3.

The guide is adjusted for use as represented in Fig. 1, and when it is desired to change from a right to a left hand mill the screw-threaded shanks 31 and 33 are turned back from engagement with their shafts, the shafts are drawn forward so that the arm 25 and the extension 27 of the shaft 22 will clear the shoulder 2 of the bearing-section 21, after which the position of the arm may be reversed; and when it is desired to remove or adjust a saw upon its arbor the hand-wheel 34 is turned so as to advance the shaft 28 until the pin 39 is brought into register with the slots 36, after which the shaft may be turned so that the arm may be carried to the position shown in Fig. 3.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a saw guide, the combination, with the bearing, of a longitudinally-adjustable hollow shaft mounted in said bearing, an arm on the shaft and a guiding-pin on the arm, a rotary longitudinally-adjustable shaft within the hollow shaft and having an arm provided with a guiding pin or bearing, and means for locking the inner shaft against rotation within the hollow shaft, substantially as set forth.

2. In a saw-guide, the combination, with the hollow shaft having an arm provided with a

guide pin or bearing, of the inner shaft having a longitudinal and transverse communicating slots, an arm provided with a guide pin or bearing, and a pin passed through the hollow shaft and slot of the inner shaft, whereby the inner shaft may be locked from rotation within the outer shaft, substantially as set forth.

3. The combination, with the bearing having upper and lower shoulders, the longitudinally-adjustable rotary hollow shaft therein, provided with an arm normally held from rotation between said shoulders, but adapted to be reversed therein, and the guide-pin on said arm, of the longitudinally-adjustable shaft within said hollow shaft and provided with an arm, and a guiding pin or bearing, substantially as set forth, whereby the position of the arms may be reversed for use with right or left saws, as described.

4. The combination, with the seat 10, having slot 12 in its upper plate, lug 16 at the end thereof, vertical dovetail groove in the outer face of its vertical plate, and the set-screws 13, 11, and 15, of the bearing, comprising upper and lower sections, 21 23, the former having the depending leg 18 engaging the said dovetail slot, and the adjustable shafts and the arms carried thereby and provided with guide-pins, substantially as set forth.

5. The combination, with a seat, of a bearing formed with an arm-seat or shoulder, a hollow rotary shaft, an arm and extension rigidly connected thereto and arranged to rest upon the arm seat, a shaft mounted within the hollow shaft, an arm carried thereby, guiding pins or bearings carried by the two arms, and a means, substantially as described, for adjusting the shafts, as and for the purpose stated.

6. The combination, with a hollow shaft and its support, of a rotary shaft mounted within the hollow shaft and formed with slots 35 and 36, a pin, 39, connected to the hollow shaft and passing through the slot 35 of the inner shaft, arms carried by the shafts, guide-pins carried by the arms, and adjusting-screws connected to the shafts, substantially as described.

JOHN OSWALD MORROW.

Witnesses:

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HENRY CLEAR, Jr.