J. BRYCE & O. GRONBERG.

CIRCULAR SAW GUIDES.

No. 170,520. Patented Nov. 30, 1875.

Fig. 1

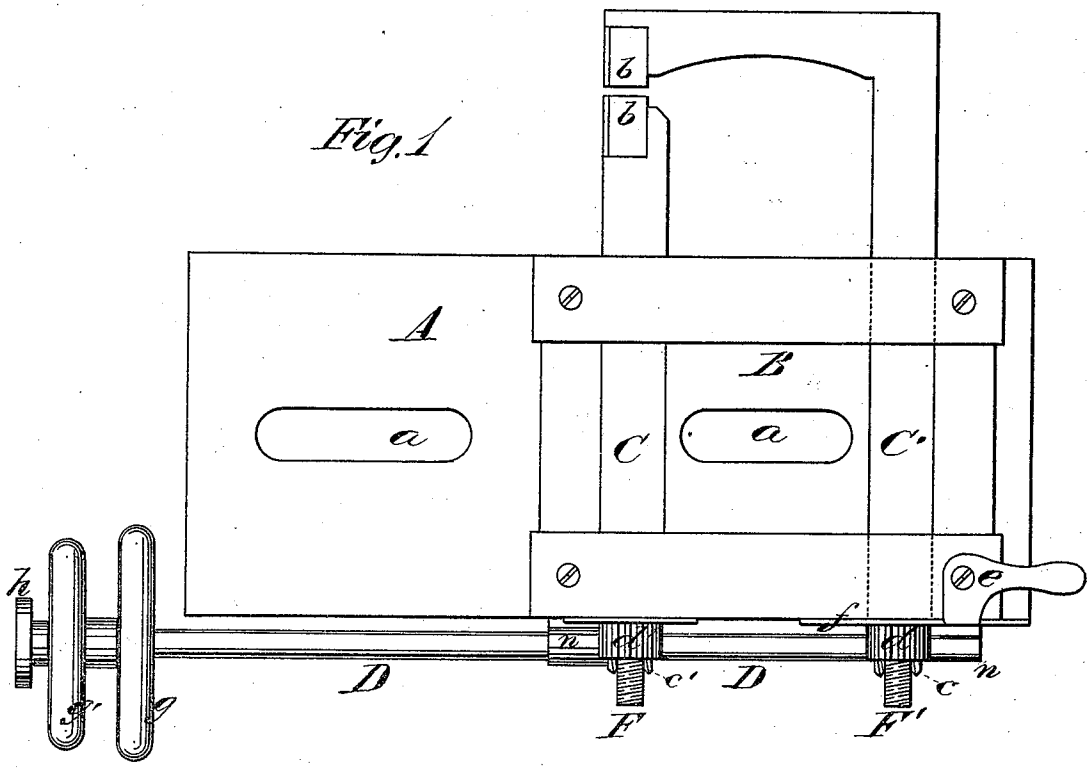


Fig. 2

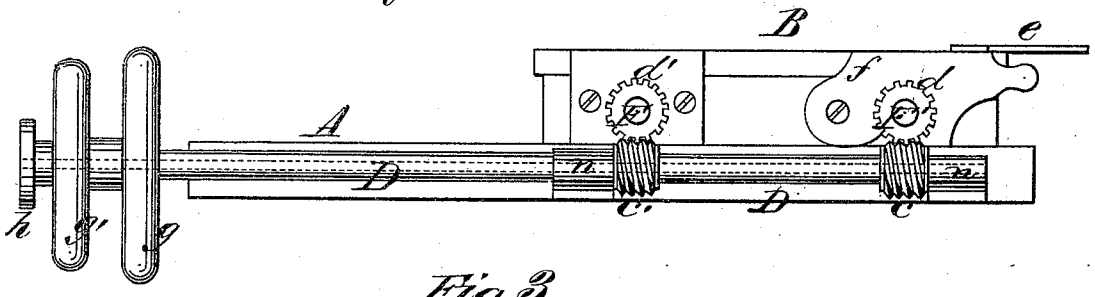
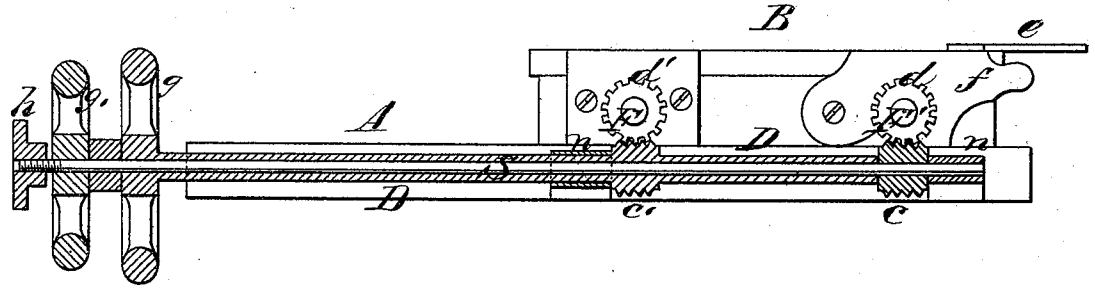


Fig. 3



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN BRYCE AND OTTO GRONBERG, OF GRAND HAVEN, MICHIGAN.

IMPROVEMENT IN CIRCULAR-SAW GUIDES.

Specification forming part of Letters Patent No. **170,520**, dated November 30, 1875; application filed October 30, 1875.

To all whom it may concern:

Be it known that we, JOHN BRYCE and OTTO GRONBERG, of Grand Haven, in the county of Ottawa and State of Michigan, have invented a new and valuable Improvement in Circular-Saw Guides; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of our saw-guide, and Fig. 2 is a front view thereof. Fig. 3 is a longitudinal vertical sectional view of the same.

This invention has relation to circular-saw guides, which are designed for preventing lateral vibration of such saws, and resisting lateral strain. The nature of our invention and improvement consists in novel means for adjusting either one or both of the guide-arms according as the size of the saw may vary, or the nature of the work may require, as will be hereinafter explained.

In the annexed drawings, A B designate the guide-frame, which is slotted at *a a* for the purpose of receiving the bolts which secure it down to its place, and allowing it to be adjusted longitudinally on its bed. C C′ designate two guide-arms, one of which is straight and the other rectangular, as shown in Fig. 1, and at the adjacent ends of these guides pieces *b b* of leather are confined, between which the saw turns. The guides C C′ have screws F F′ rigidly secured into their outer ends, on which are applied worm-wheels *d d′*, with the teeth of which worm-screws *c c′* engage. The worm-screw *c* is keyed on a shaft, S, which is supported in bearings *n n*, and has a hand-wheel, g^1, applied on it, by means of which the worm-screw *c* can be turned, and the outer guide C′ adjusted up to or from the guide C. The worm-screw *c′* is keyed on a tubular shaft, D, through which shaft S passes, and on this shaft D a hand-wheel, *g*, is secured. By means of this hand-wheel *g* worm-screw *c′* can be turned, and the guide-arm C adjusted toward or from the outer guide C′. Between the hubs of the hand-wheels *g* g^1 is a friction-collar, g^2, and on the screw-threaded end of the shaft S is a nut, *h*. By setting up the nuts *h* the two shafts D S can be locked together, and both guide-arms can be adjusted together. The hub of the worm-wheel *d* has an annular groove in it, which receives a notched retaining-plate, *f*, that is held down in place by means of a latch, *e*. When the plate *f* is thrown up the arm C′ can be drawn out of the frame A B. This is done when changing saws. It is obvious that the worm-wheel *d′* may be grooved and provided with plates corresponding to *f* and *e*.

What we claim, and desire to secure by Letters Patent, is—

1. The guide-arms C C′, screws F F′, worm-wheels *d d′*, worm-screws *c c′*, and shafts D S, combined and operating in the manner and for the purposes described.

2. The retaining-plate *f* and latch *e*, in combination with worm-wheels *d d′*, and guide-arms C C′, as and for the purposes described.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

JOHN BRYCE.
OTTO GRONBERG.

Witnesses:
JAMES C. AVERY,
GEORGE A. BROWN.