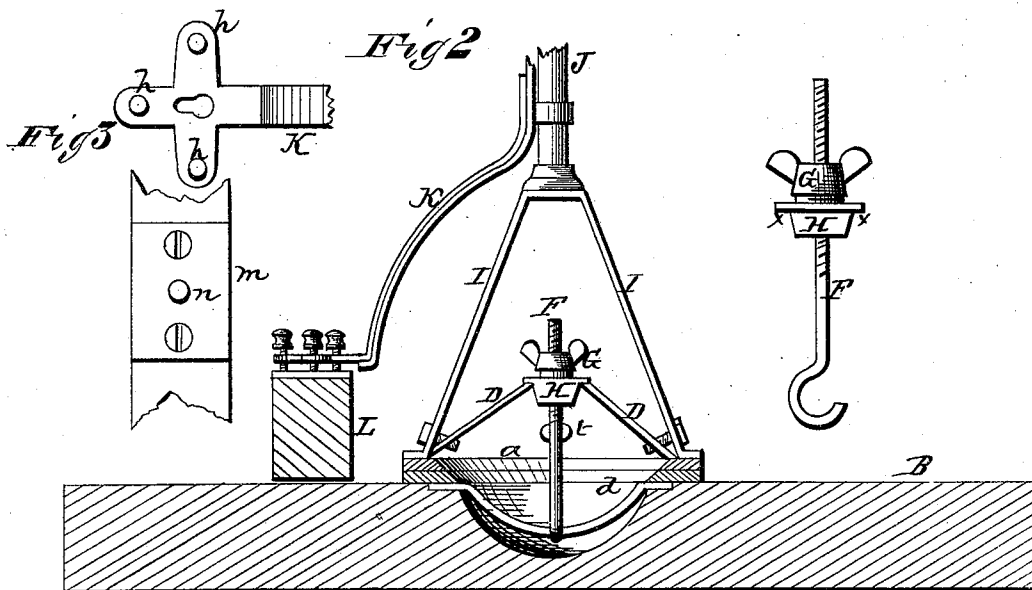
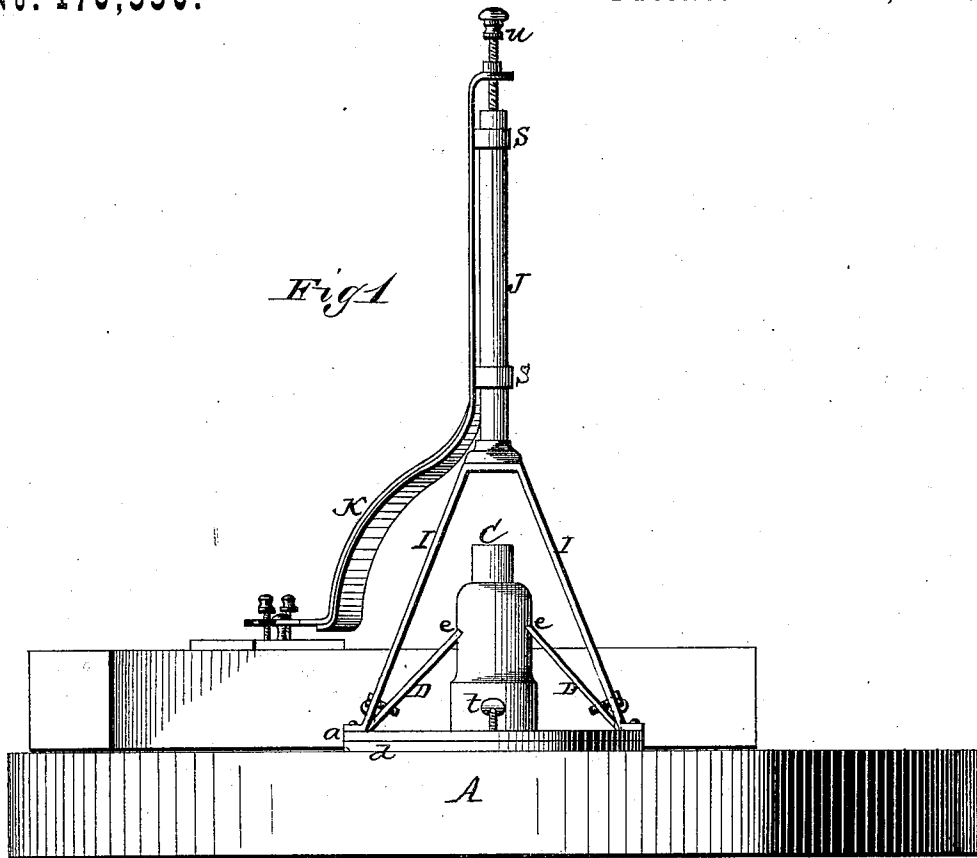


M. T. GREENLEAF & F. KRUSE.

MILLSTONE TRAM AND STAFF.

No. 170,550.

Patented Nov. 30, 1875.



WITNESSES
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MILLER T. GREENLEAF AND FREDRICK KRUSE, OF QUINCY, ILLINOIS.

IMPROVEMENT IN MILLSTONE TRAMS AND STAFFS.

Specification forming part of Letters Patent No. **170,550**, dated November 30, 1875; application filed September 18, 1875.

To all whom it may concern:

Be it known that we, MILLER T. GREENLEAF and FREDRICK KRUSE, of Quincy, in the county of Adams and in the State of Illinois, have invented certain new and useful Improvements in Millstone Tram and Staff; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of the several parts of a machine which is used to tram and staff millstones, the peculiarities of which will be hereinafter set forth.

In the annexed drawings, making a part of this specification, Figure 1 represents the machine placed upon the face of the upper and stationary stone, while Fig. 2 represents it upon the runner, which is shown in section. The other figures represent detached portions, which will be described.

In Fig. 1, A represents the millstone, and C the spindle, which has a notch formed in it on two sides, as seen at *ee*. *a* and *d* represent two rim-wheels, which are placed upon the face of the stone, and one plate or wheel upon the other, the two being connected by suitable guide-pins. To the upper plate or wheel *d* are hinged or pivoted two pawls, D D. The upper ends of these pawls catch into the notches *ee* in the spindle, and thus hold the rim-wheels in position on the stone. Erected upon the plate or wheel *a* is a frame-work composed of the two bars I I and a stem, J. K represents a bar, which is straight a portion, and curved a portion, of its length, as seen. The straight portion is connected to the stem J by means of the sleeves or collars *s s*. The lower portion of this bar is curved, so that it may swing around and over the frame-pieces I I. This bar K is secured to the tram-bar L, as follows: In its lower end is an eyelet, into which passes a headed bolt, which is formed upon, or secured to, a plate on the tram-bar.

This bolt allows the bar to move in any desirable direction. *h h* represent set-screws, which pass through projecting arms on the end of bar K, and serve, by pressing against the plate on the tram-bar, to regulate the said bar to a horizontal position.

In Fig. 2 it will be seen that I adjust the machine to the runner by means of a hooked screw-rod, F. This rod hooks under the balance-rim. H represents a flanged collar, which surrounds the rod F, and when the ends of the pawls catch under the flanges of this collar, and the nut G is screwed down, the machine is securely attached to the stone. The upper rim-wheel *a* is provided with three set-screws, *t t*, the lower ends of which rest upon the plate *d*, so that the stem J may be regulated to an exactly vertical position. *u* is a pivot-screw passing through bar K and resting on stem J.

By the use of this machine, with its regulating set-screws, the surface of the stone may be dressed with great accuracy and the spindle placed in a perfectly vertical position.

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

1. The plates or rim-wheels *a d*, one of which is provided with the pawls D D, and the set-screws *t t*, in combination with a device for tramming millstones erected thereon, substantially as set forth.

2. The hooked screw-rod F provided with the flanged collar H, and nut G, in combination with the pawls D D, and rims *a d*, with the tramming device thereon, substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 16th day of August, 1875.

MILLER T. GREENLEAF.
FREDRICK KRUSE.

Witnesses:

C. L. EVERT,
A. McMURRAY.