

W. L. TETER.
Millstone Setting.

No. 212,160.

Patented Feb. 11, 1879.

Fig. 1

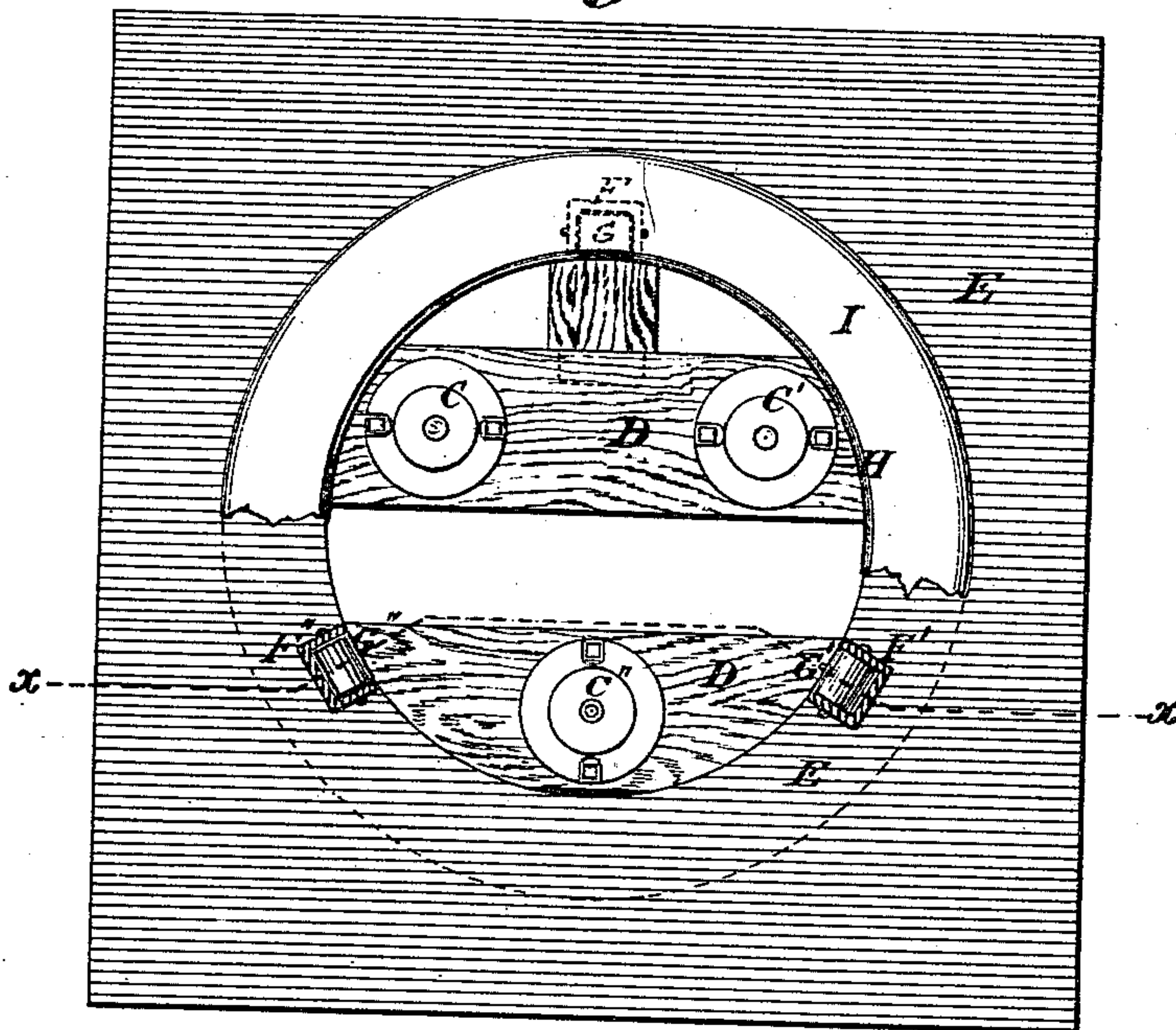


Fig. 2

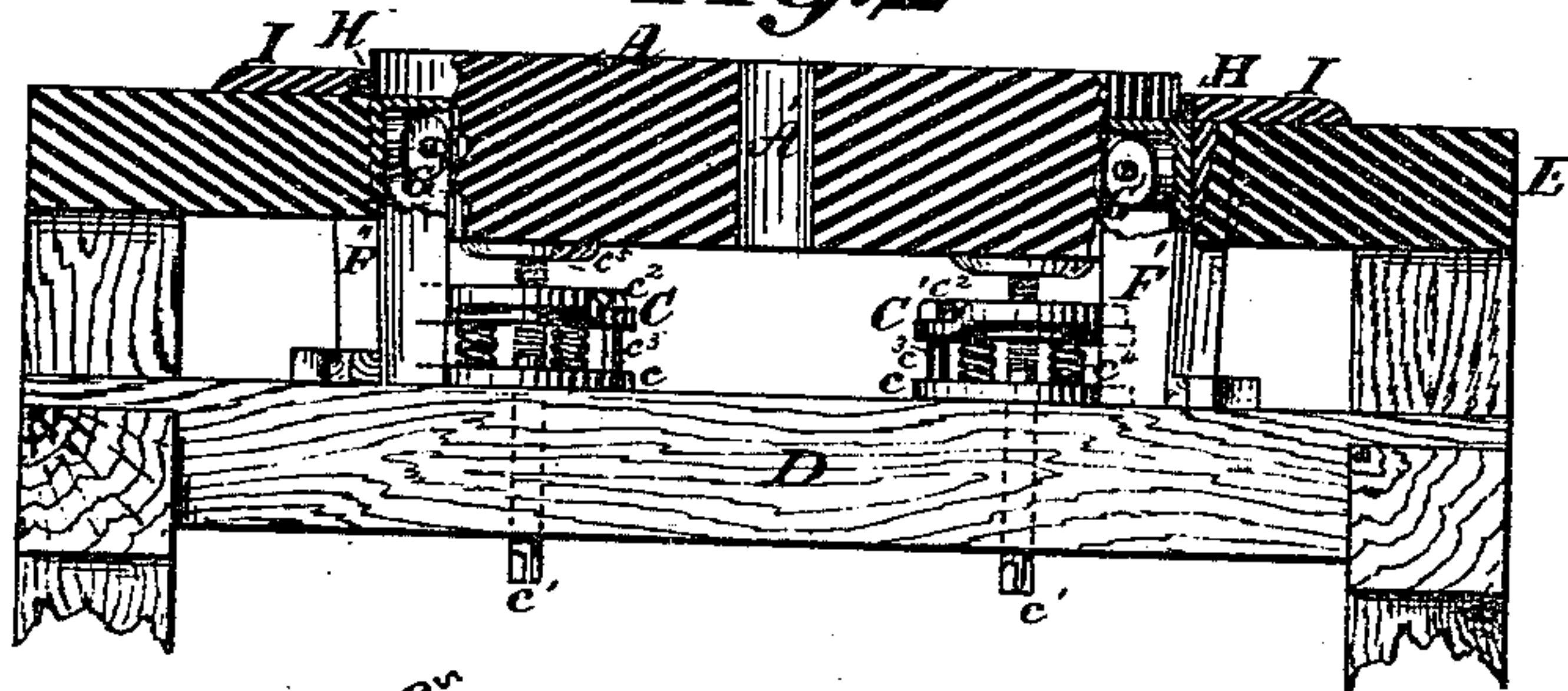
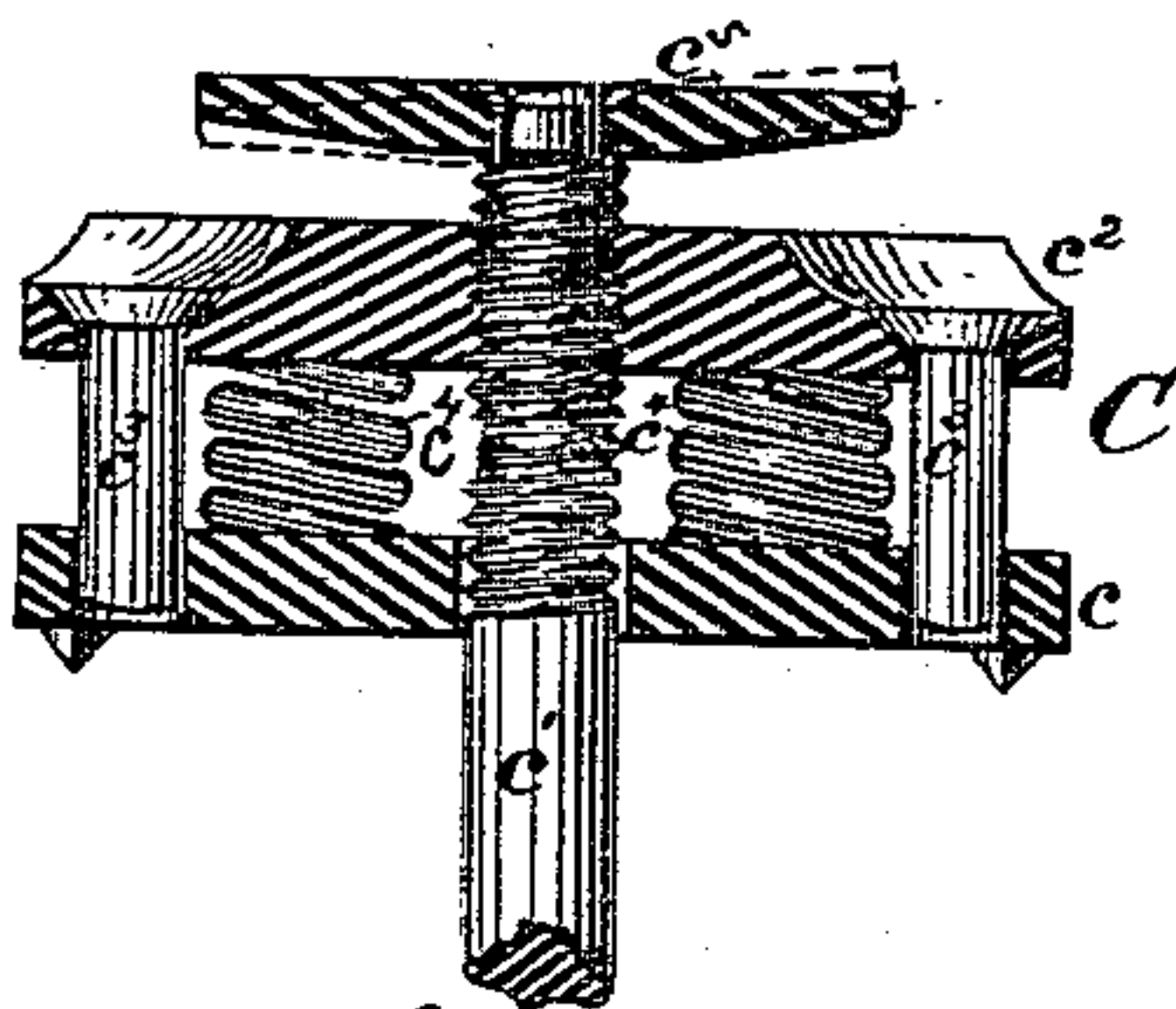


Fig. 3



Witnesses:

A B Battelle

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UNITED STATES PATENT OFFICE

WILLIAM L. TETER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MILLSTONE-SETTING.

Specification forming part of Letters Patent No. 212,160, dated February 11, 1879; application filed October 15, 1877.

To all whom it may concern:

Be it known that I, WILLIAM L. TETER, of the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Millstone-Setting, of which the following is a specification:

My invention relates to that class of settings where the bed-stone rests upon an elastic bed or springs, which will permit the stone to yield sufficiently to allow hard substances to pass from between the stones without injuring their dress, and secure greater regularity and smoothness of their grinding action.

The object of the first part of my invention is to hold the bed-stone closely in tram and prevent its lateral movement across the face of the upper stone, as well as an undue friction upon the spindle, which should turn freely in the eye of the stone; and the improvement consists in arranging springs beneath the bed-stone and adjustable friction-rollers around it, as hereinafter more fully described.

The object of the next part of my invention is to provide a spring which may be adjusted between the hurst-frame of the mill and the bed-stone to level the stone, and also compensate for the unevenness of bottom of the stone and the varying distances between the bottom of the stone and the hurst-frame; and the improvement consists in forming the spring-boxes with an upper and lower plate, between which the springs are placed, and an adjusting-screw to pass freely through the lower plate and screw through the upper plate, so that the lower plate of the spring-box may rest upon the hurst-frame, and the upper end of the adjusting-screw press beneath the stone.

In the accompanying drawings, Figure 1 is a plan view of the millstone seat or bed with the stone removed to show my improvements; Fig. 2, a vertical section in the line *xx* of Fig. 1 with the stone in position; and Fig. 3, an enlarged vertical section of my improved spring shown in detail.

The bed-stone A has its eye A' packed in the usual way, through which the spindle may pass, the upper end of which supports and carries around the upper stone in a well-known manner.

The bed-stone A rests upon springs C, of

peculiar construction, as hereinafter described, and is supported by the hurst-frame D. Suitable blocks F F' F'' are secured to the flooring and hurst-frame, and arranged around the stone so that the rollers may rest against the vertical sides or periphery of the stone and hold it in position laterally.

The blocks F may be wedge-shaped, or may be adjusted by wedges or screws, so that the rollers may be forced against the stone from one side or the other in tramming, and may be held in sufficiently approximate contact to prevent undue lateral movement of the stone, while it will permit it to move freely vertically, and also allow of a slight dipping or teetering of the stone to permit obstructions to pass freely from between the stones without permitting it to move laterally, the dress of the stones being such that any lateral movement of them would rub and burr the berry instead of shearing it, thus impairing the quality of the flour.

The shaft passes loosely through the eye of the bed-stone, and may be packed by leathern washers in the usual way, which will admit of a slight teetering of the stone, limited by the adjustable rollers, without heating the journal of the spindle, while an undue lateral movement of the stone would have the contrary effect, which would be a most serious disadvantage.

The bed-stone A projects slightly above the flooring, and is packed around its periphery a suitable distance below the face of the stone. Any suitable packing material H may be used, which is held in place by the skirting I in a well-known manner.

The springs C, upon which the bed-stone rests, are made of iron and steel, and consist of a lower plate, *c*, that rests upon the hurst-frame, and has a central opening, through which a screw-bolt, *c*¹, freely passes and screws into an upper plate, *c*², the plates being held in relative positions by guide-pins *c*³, which allow them a limited movement to or from each other. Coiled steel springs *c*⁴ are held between the plates in a suitable manner, and serve to keep the plates apart until sufficient pressure comes upon them to compress the springs.

The screw-bolt *c*¹ passes up through a hole in the hurst-timber, in order that it may be

easily reached for adjustment, and then passing freely through the lower plate, *c*, screws into the upper plate, *c*², and is provided at its upper end with a loosely-swiveled bearing-plate, *c*⁵, upon which the stone *A* rests. The plate *c*⁵ will thus be permitted to adapt itself to any unevenness of the under surface of the stone without bearing unequally upon the springs, while, by means of the adjusting-screw, the face of the stone may be leveled, and the varying space between the unfinished under surface of the stone may be taken up without affecting the tension of the springs or disturbing the spring boxes or plates upon their seats.

I claim as my invention and desire to secure by Letters Patent—

1. A self-adjusting millstone resting upon

bed-springs, and provided with adjustable friction-rollers arranged around its periphery, as described, so that the bed-stone may have a slight swiveling as well as vertical movement without being displaced laterally, substantially as set forth.

2. In an adjustable bed-spring for millstones, the combination of the upper plate, the lower plate, spiral springs arranged between them, and an adjusting-screw passing freely through the lower plate and screwing through the upper plate, whereby the stone may be adjusted without affecting the tension of the springs, substantially as set forth.

WILLIAM L. TETER.

Witnesses:

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FRANCIS D. MCGLENSEY.