No. 712,815. Patented Nov. 4, 1902.

A. B. LANDIS.

WORK REST FOR GRINDING MACHINES.

(Application filed Apr. 18, 1902.)

(No Model.)

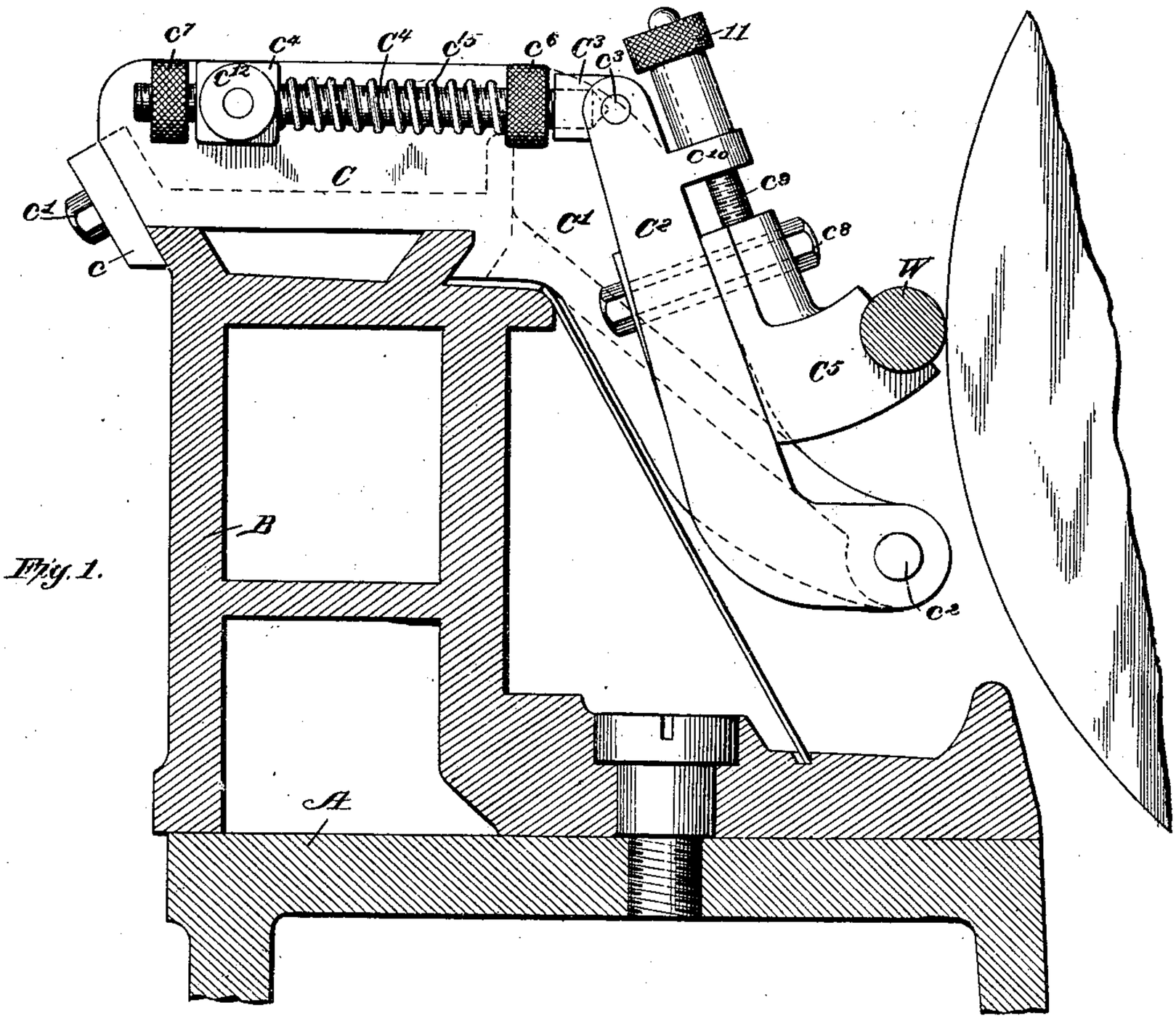

Fig. 1.

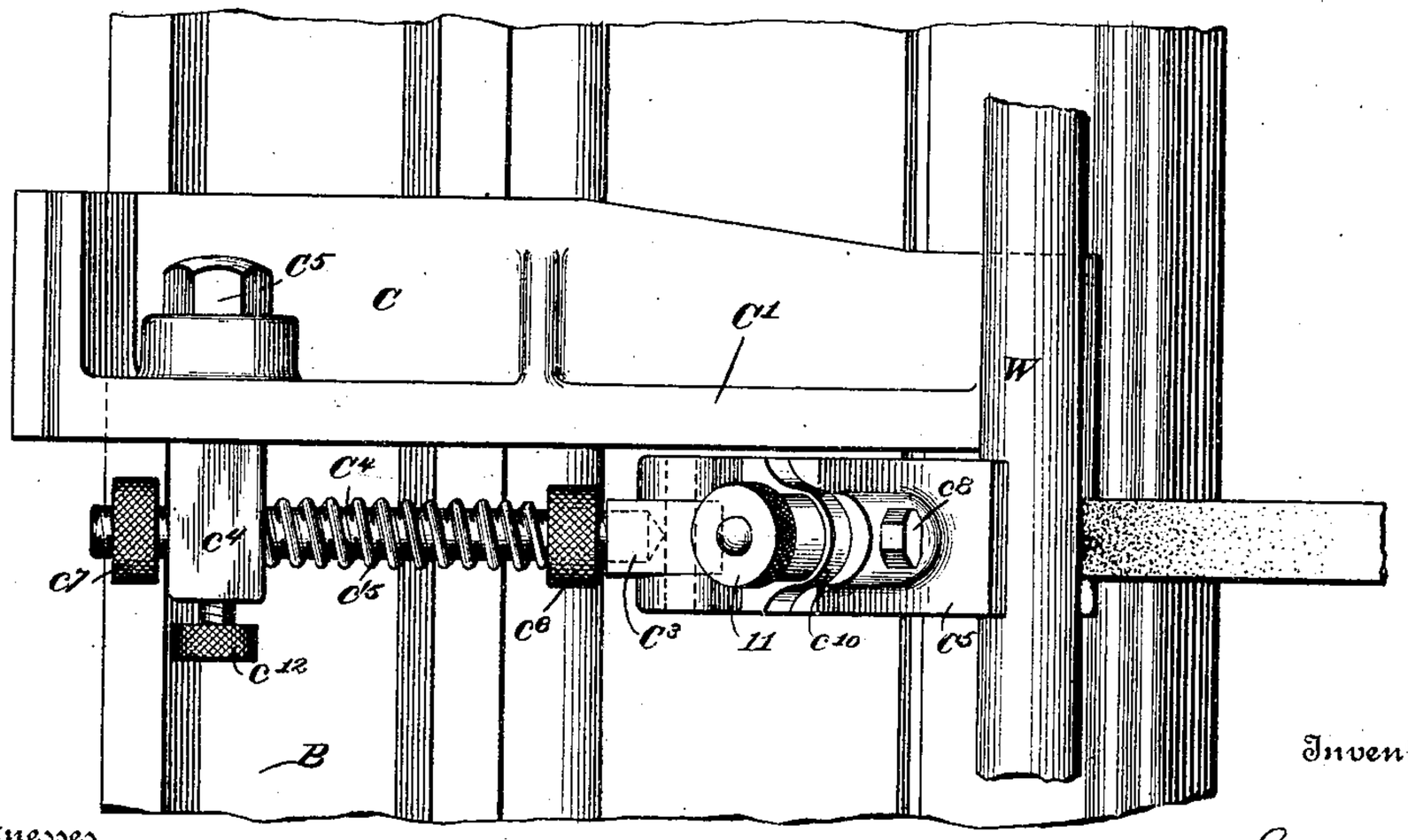

Fig. 2.

Witnesses
A. S. Austin,
David Stuart Wauters

Inventor
Abraham B. Landis,
By E. W. Bedford
Attorney

UNITED STATES PATENT OFFICE.

ABRAHAM B. LANDIS, OF WAYNESBORO, PENNSYLVANIA.

WORK-REST FOR GRINDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 712,815, dated November 4, 1902.

Application filed April 18, 1902. Serial No. 103,595. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM B. LANDIS, a citizen of the United States, residing at Waynesboro, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Work-Rests for Grinding-Machines, of which the following is a specification.

My invention consists of certain improvements and arrangements of parts of work-rests for grinding-machines whereby such a rest is provided which may be adjusted to different positions in relation to the grinding-wheel to suit work of different sizes and may be held to said work both rigidly and under a yielding tension, said tension being adjustable, as desired, as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a view in cross-section through the top of the grinding-machine bed and table, showing my improved work-rest in elevation mounted thereon; and Fig. 2, a top or plan view of the same.

In said drawings the portions marked A represent the bed of the machine, B the table, mounted thereon, and C the base or support of the said work-rest.

The bed A and the table B are of a form and arrangement as shown in former Letters Patent granted to me and need no special description herein.

The work-rest consists of a base or support C, mounted upon suitable ways on the top of the said table B, being clamped thereon by a clamping-bar *c*, secured to the rear side of said base by a screw-bolt *c'*, adapted to engage under the angle of the corner of the rear side of the table forming the way on which said support is adapted to be adjusted. The front portion C' of said support C extends downwardly at an angle from the top of the table to a point beneath the work. The arm C^2 is pivoted at its lower end to the lower end of said front part C' on a pivot c^2 and extends upwardly at an angle. It has a short arm or socket C^3, pivoted to its upper end on a pivot c^3. A bolt C^4 engages at its front end in said socket and at its rear end is mounted in a transverse perforation in a lug c^4, pivoted on the side of the support C on a pivot-bolt c^5. Near the front end of said pivot-bolt is mounted a nut c^6, and interposed between said nut and said lug c^4 is a coiled spring c^{15}. On the rear end of said support outside the lug c^4 is another nut c^7. A bearing-block C^5 is mounted on the front side of the pivoted arm C^2, being held thereon by a bolt c^8 passing through a perforation therein and a vertical slot (indicated by dotted lines in Fig. 1) in said arm, which allows said block to be adjusted longitudinally of said pivoted arm. It is further supported and held in any adjusted position by a screw-threaded bolt c^9, connected therewith and extending up through a lug c^{10} on said pivoted arm, above which it is provided with a nut c^{11}, by which when the bolt c^8 is loosened said bearing-block may be vertically adjusted to a position desired.

In operation, the parts being in the position shown in the drawings and the bearing-block C^5 being adjusted in the proper relation to the work W, the spring c^5, bearing through the connecting parts against the upper end of the pivoted arm C^2, will hold said bearing-block yieldingly to said work, the tension of said spring being regulated by the proper adjustment of the nut c^6, as will be readily understood. The pivoted lug c^4 permits the ready adjustment and movement of the parts without any binding. By means of the nut c^7 the forward movement of the bearing-block may be limited when desired. A set-screw c^{12}, mounted in the end of the pivoted arm c^4, is adapted to impinge against the side of the bolt C^4, and thus hold said bolt and the rest rigid when desired.

It will thus be seen that all of the adjustments required in a work-rest of this kind to secure the best results are provided for in a very simple and durable construction.

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

1. A work-rest for grinding-machines, comprising a base having an arm projecting to below the work, an arm pivoted thereon carrying a bearing-block, and a yieldingly-mounted support for the upper end of said arm, substantially as set forth.

2. A work-rest for grinding-machines, com-

prising a support mounted on the table thereof and having an arm extending to a point below the work, the arm pivoted to the lower end of the said supporting-arm, a bearing-block mounted on said pivoted arm, and a yielding support for the upper end of said pivoted arm, substantially as set forth.

3. A work-rest for grinding-machines, comprising a support mounted on a table of the machine and having a rigid arm extending to a point below the work, an arm pivoted to the lower end of said rigid arm, a bearing-block adjustable to said pivoted arm, a horizontal arm connected with the upper end of said pivoted arm, and held thereon by a yielding pressure, substantially as set forth.

4. A work-rest for grinding-machines, comprising the support extending to a point below the work, an arm pivoted to the lower end thereof, a bearing-block on said arm, a transverse arm and bolt connected to the upper end of said pivoted arm, a nut thereon, and a spring interposed between said nut and a stationary part, whereby the tension of said spring may be adjusted, substantially as set forth.

5. A work-rest for grinding-machines, comprising the support extending below the work, an arm pivoted to the lower end of said support, a bearing-block on said arm, a horizontal arm or bolt connected to the upper end of said pivoted arm and supported in a pivoted bearing, a spring mounted thereon, and means for adjusting the tension of said spring, substantially as set forth.

6. A work-rest for grinding-machines, comprising a support extending below the work, a bearing-block thereon, a horizontally-adjustable support for the upper end of said pivoted arm, and means for locking said adjustable support in rigid position, substantially as set forth.

7. A work-rest for grinding-machines, comprising a support extending to plane below the work, an arm pivoted to the lower end of said support, a bearing-block thereon, a horizontally-adjustable support pivotally connected to the upper end of said pivoted arm, a spring for holding said support against the upper end of said arm, and a nut for limiting the forward movement of said arm, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Waynesboro, Pennsylvania, this 21st day of March, A. D. 1902.

ABRAHAM B. LANDIS. [L. S.]

Witnesses:
D. J. CROSBY,
ALF N. RUSSELL.