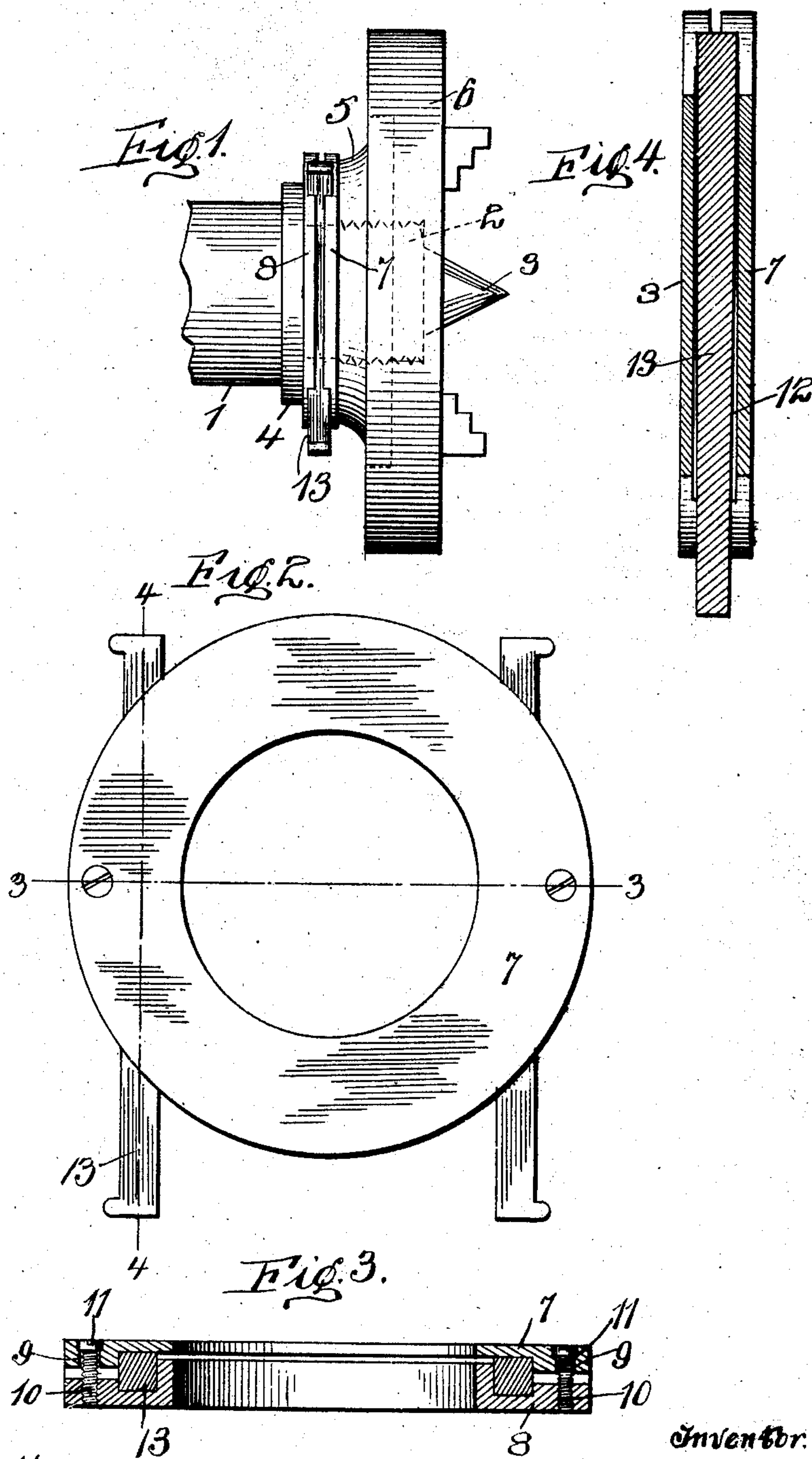


No. 846,440.

PATENTED MAR. 12, 1907.

E. C. ADAMS.
WASHER FOR LATHES.
APPLICATION FILED MAY 29, 1906.



Witnesses:

Jesse C. Miller,
E. E. Potter

Inventor:

E. C. Adams,

by *H. C. Carter & Co.*
Attorneys.

UNITED STATES PATENT OFFICE.

EARL C. ADAMS, OF BELLE VERNON, PENNSYLVANIA.

WASHER FOR LATHES.

No. 846,440.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed May 29, 1906. Serial No. 319,303.

To all whom it may concern:

Be it known that I, EARL C. ADAMS, a citizen of the United States of America, residing at Belle Vernon, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Washers for Lathes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to lathe attachments, and more particularly to adjusting devices for facilitating the removal of chucks from lathe-spindles, the object being to provide simple and effective means for loosening the connection between the chuck and face-plate of a lathe, so that the chuck may be easily unscrewed from the spindle.

20 The construction of my improvement will be fully described hereinafter in connection with the accompanying drawings, which form a part of this specification, and its novel features will be defined in the appended claim.

25 In the drawings, Figure 1 is a side elevation of a portion of a lathe-spindle having a chuck and my improved adjusting device applied thereto. Fig. 2 is a front elevation of the adjusting device, on a larger scale, removed from the spindle. Fig. 3 is a horizontal section on the line 3 3 of Fig. 2, and Fig. 4 is a vertical section taken on the line 4 4 of Fig. 2.

30 The reference-numeral 1 designates a lathe-spindle having its outer portion 2 screw-threaded and formed with the usual conical projection 3. An annular flange or collar 4 is formed on the spindle, and against this collar my improved device is applied.

40 The reference-numeral 5 designates a face-plate upon which is secured the chuck 6.

45 The adjusting device comprises two concentric rings 7 and 8, loosely secured together by means of diametrically opposite screws 9, which extend into threaded openings 10 in the ring 8 and through unthreaded openings 11 in the ring 7, the latter being countersunk to accommodate the heads of the screws 9. The inner faces of the rings 7 and 8 are recessed to form tapering seats 12 for wedge-shaped keys 13. These keys when driven down to frictionally engage the upper por-

tions of the walls of the recesses in the rings force the rings apart and firmly clamp them between the collar 4 and the face-plate 5 upon the spindle, as illustrated in Fig. 2.

55 The utility and operation of the device as thus constructed will be readily understood. As long as the wedge-keys are in the downward position illustrated in Fig. 4 the two rings 8 and 7 are forced apart to firmly clamp them between the collar 4 and face-plate 5; 60 but when it is desired to remove the chuck 6 the keys are loosened by tapping them on their lower ends with a suitable implement, and thus the outer ring 7 is permitted to recede toward the ring 8, after which the chuck 65 and face-plate 5 may be readily unscrewed from the spindle.

While I have shown the larger ends of the wedge-keys uppermost in the drawings, it is obvious that the position of these keys may 70 be reversed, in which event they would be driven upward to wedge them between the rings 7 and 8 and downward to release the key.

75 I would have it understood that the invention includes all such modifications and variations in the minor details of construction as may be resorted to without departing from the scope of the claim.

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

85 The combination with a lathe-spindle having a fixed collar, and a chuck received on the spindle and having a face-plate, of two concentric rings loosely mounted on the spindle between the collar thereof and the face-plate of the chuck, and one of which rings is loosely connected to the other ring, the rings having registering parallel grooves in the adjacent 90 faces, and wedge-keys in the grooves, one at each side of the spindle for spreading the rings and forcing the same into engagement with the collar and face-plate respectively.

95 In testimony whereof I affix my signature in the presence of two witnesses.

EARL C. ADAMS.

Witnesses:

MAX H. SROLOVITZ,

E. E. POTTER.