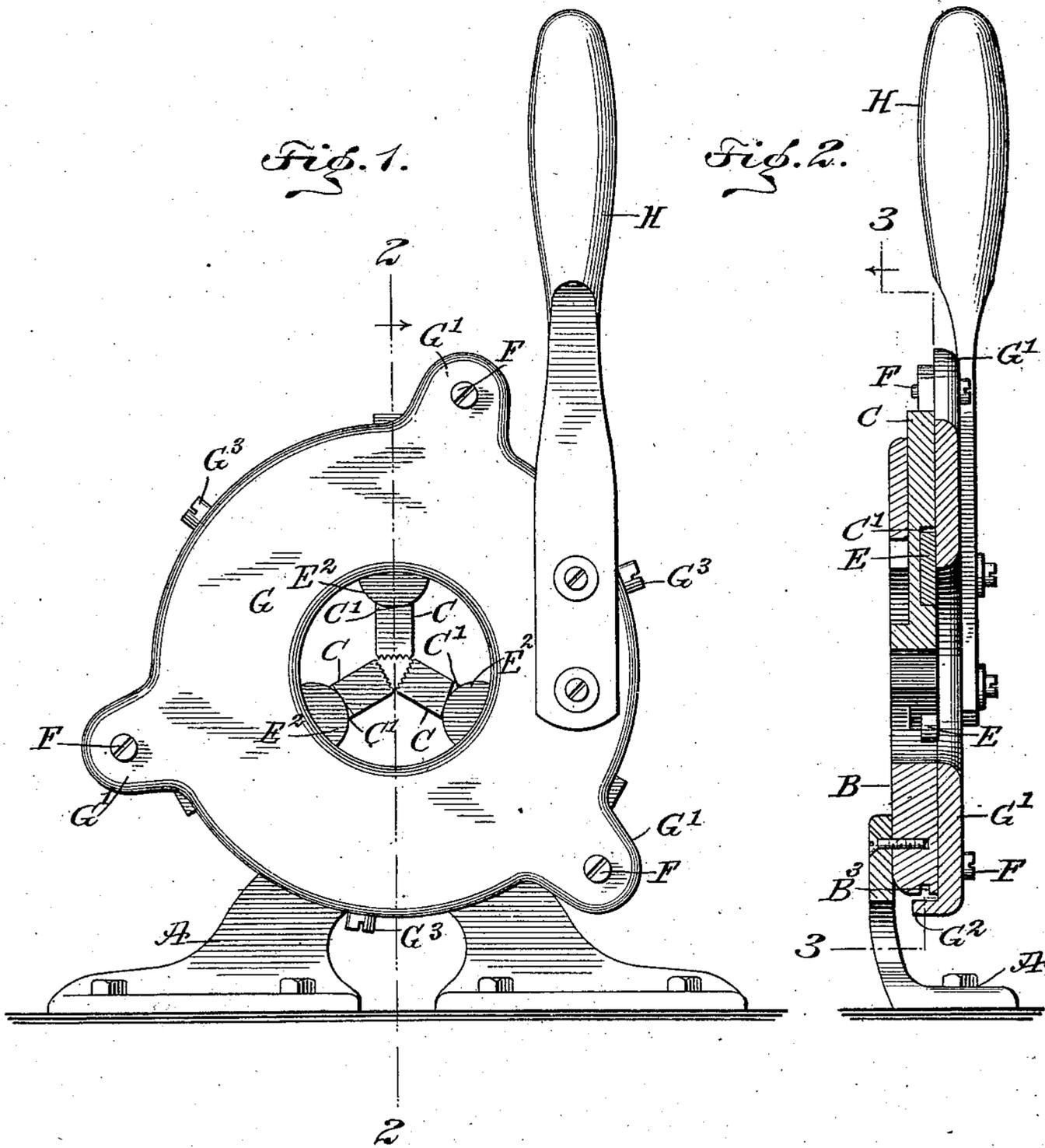


J. MORGAN.  
ATTACHMENT FOR TURNING LATHES.  
APPLICATION FILED FEB. 19, 1906.

2 SHEETS—SHEET 1.



WITNESSES:  
*H. C. Abbott*  
*John K. Brachvogel*

INVENTOR  
*Jesse Morgan*  
 BY *Mumford*  
 ATTORNEYS

J. MORGAN.  
ATTACHMENT FOR TURNING LATHES.  
APPLICATION FILED FEB. 19, 1906.

2 SHEETS—SHEET 2.

Fig. 3.

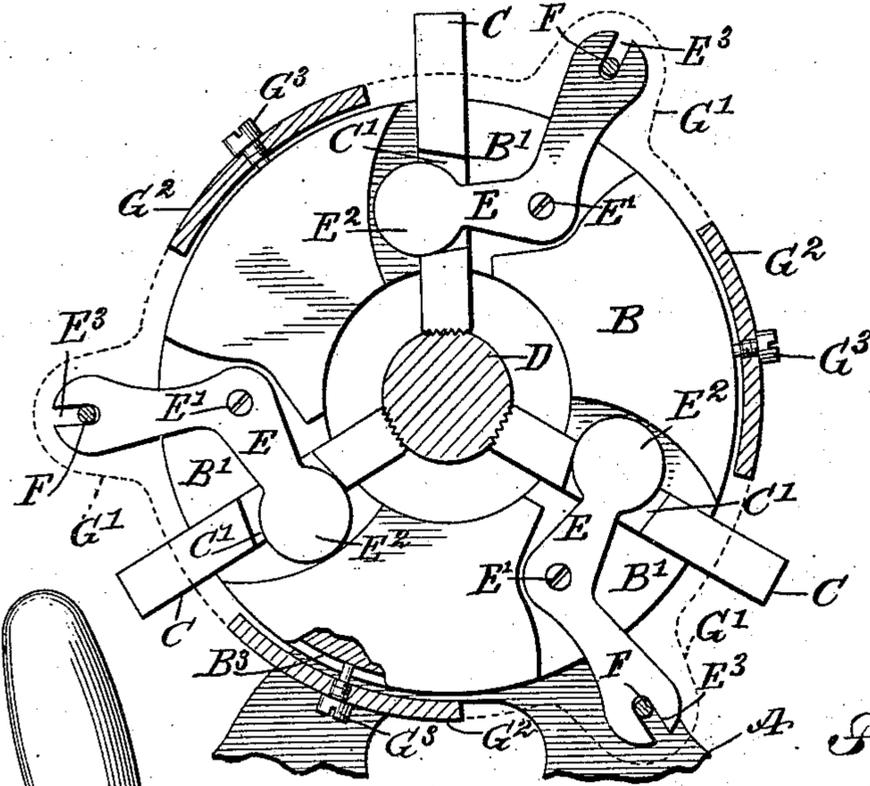


Fig. 5.

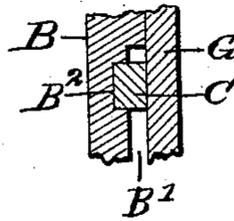
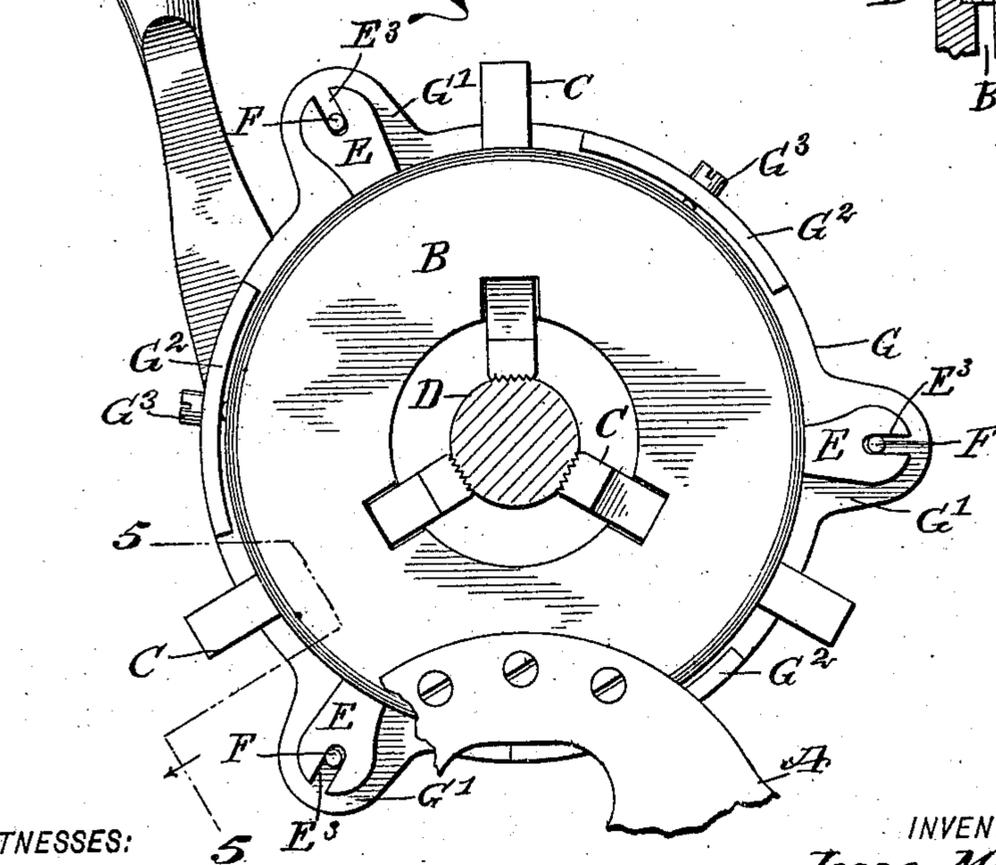


Fig. 4.



WITNESSES:

*R. C. Abbott*  
*John K. Braebury*

INVENTOR

*Jesse Morgan*

BY

*Mumford*

ATTORNEYS

# UNITED STATES PATENT OFFICE.

JESSE MORGAN, OF HUGHESVILLE, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO THEODORE A. BOAK, OF HUGHESVILLE, PENNSYLVANIA.

## ATTACHMENT FOR TURNING-LATHES.

No. 850,035.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed February 19, 1906. Serial No. 301,816.

*To all whom it may concern:*

Be it known that I, JESSE MORGAN, a citizen of the United States, and a resident of Hughesville, in the county of Lycoming and State of Pennsylvania, have invented a new and Improved Attachment for Turning-Lathes, of which the following is a full, clear, and exact description.

This invention relates to lathes for metal or wood work, and is especially useful in boring and centering or as a center rest or support.

The object of the invention is to provide a simple, efficient, and durable lathe, steady-rest, or chuck which is easily operated manually, which may be attached without difficulty to lathes of the usual construction, and which will afford means for securely holding or steadying the material or work.

The invention consists in the construction and combination of parts which will be set forth hereinafter and particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, which illustrate as an example the preferred embodiment of my invention, in which drawings similar characters of reference indicate like parts in the several views, and in which—

Figure 1 is a front elevation of the invention. Fig. 2 is a vertical cross-section on the line 2 2 of Fig. 1. Fig. 3 is a vertical section on the line 3 3 of Fig. 2. Fig. 4 is a partial rear elevation, and Fig. 5 is a cross-section on the line 5 5 of Fig. 4.

In the preferred embodiment of my invention, I provide a base or standard A, adapted to be properly mounted upon or secured to the lathe-body. An annular jaw-carrier B is carried by the base A and is secured thereto by means of screws. The jaw-carrier B is provided with recesses B', wherein are located radial grooves or channels B<sup>2</sup>. Jaw-bars C, converging toward the center of the device, are arranged so as to slide freely in the channels or grooves B<sup>2</sup> and are adapted to engage with their inner extremities the work D, held or steadied thereby. The jaws C are actuated by means of bell-crank levers E, pivotally secured to the jaw-carrier by means of screws E'. The levers E terminate at one end in circular extensions E<sup>2</sup>, which lie in

transverse grooves or recesses C' of the jaw-bars C. The other extremities of the levers E are provided with slots E<sup>3</sup>, which engage with bolts or screw-pins F, carried by extensions G' of the face-plate or ring G.

The slots E<sup>3</sup> allow the necessary play of the levers in the movement of the face-plate G relative to the jaw-carrier B. It is understood that the slots could be provided at the fulcrums E' and the extremities at E<sup>3</sup> pivoted to the face-plate G.

It will be seen from the arrangement described that the jaw-bars C are all simultaneously moved inward or outward, so that the work engaged by the jaws is held in the center of the device, which center coincides with the longitudinal axis of the lathe-spindle and work center. The attachment may be provided with roughened jaws to hold the work immovable when a boring-cutter is used with a live spindle or with smooth jaws, permitting the work to revolve within them and operating in that case to steady and center the same.

The annular face-plate G is arranged rotatably with reference to the jaw-carrier B and is held in position relative to the latter by means of screw-pins G<sup>3</sup>, carried by lateral flanges G<sup>2</sup> and engaging with a groove B' in the periphery of the jaw-carrier B. The face-plate G is provided with a handle H, suitably secured thereto, whereby the face-plate may be turned with reference to the jaw-carrier, which is rigidly held by the base A, which in turn is mounted upon the lathe or boring-machine. When the face-plate is turned, the bell-crank levers E are caused to turn about the fulcrums at E', with a consequent cam-like action of the extremities E<sup>2</sup> upon the sides of the recesses or grooves C' in the jaw-bars C, causing the jaw-bars to move either inwardly or outwardly in the radial grooves B<sup>2</sup>. The movement of the face-plate about the jaw-carrier is limited in one direction by the abutting of the flanges G<sup>2</sup> against the jaw-bars C and in the other direction by the coming together of the jaw-bars, as illustrated in Fig. 1. It is understood that when the jaws have been moved inward into engagement with the work they can be secured or fastened in place by tightening the guide screw-pins G<sup>3</sup>, which hold the face-plate and

jaw-carrier together, the screw-pins acting in this case as set-screws.

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

1. In an attachment for turning-lathes, a rigid jaw-carrier having means for guiding jaw-bars, converging jaw-bars having recesses in the sides, a member rotatable relatively to said jaw-carrier, said rotatable member being provided with studs, and bell-crank levers fulcrumed to said jaw-carrier and having curved extremities engaging with said recesses of said jaw-bars and having slots at the other extremities engaging with the studs carried by said rotatable member.

2. In an attachment for turning-lathes, a support, a rigid jaw-carrier having means for guiding jaw-bars, converging jaw-bars, a member rotatable relatively to said jaw-carrier and having lateral extensions provided with studs, and bell-crank levers fulcrumed to said jaw-carrier having arms adapted to slide said jaw-bars and opposite arms extending laterally beyond said rotatable member, said opposite arms having slots engaging

with said studs carried by said rotatable member.

3. In an attachment for turning-lathes, a support, a rigid jaw-carrier having recesses in the face thereof, converging guide-grooves in said recesses, jaw-bars mounted in said guide-grooves and having recesses, a member adjacent to the face of said jaw-carrier and rotatable relatively thereto, said rotatable member having extensions provided with studs, bell-crank levers in said recesses of said jaw-carrier and fulcrumed therewithin, an arm of each of said levers having a curved end adapted to engage with a recess of one of said jaw-bars, and an opposite arm of each of said levers extending laterally beyond said rotatable member and having a slot adapted to engage with one of said studs.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JESSE MORGAN.

Witnesses:

THEO. A. BOAK,  
ZELLA A. MOYER.