(No Model.) 2 Sheets—Sheet 1.

J. BERG.

TAPERING ATTACHMENT FOR LATHES.

No. 587,385. Patented Aug. 3, 1897.

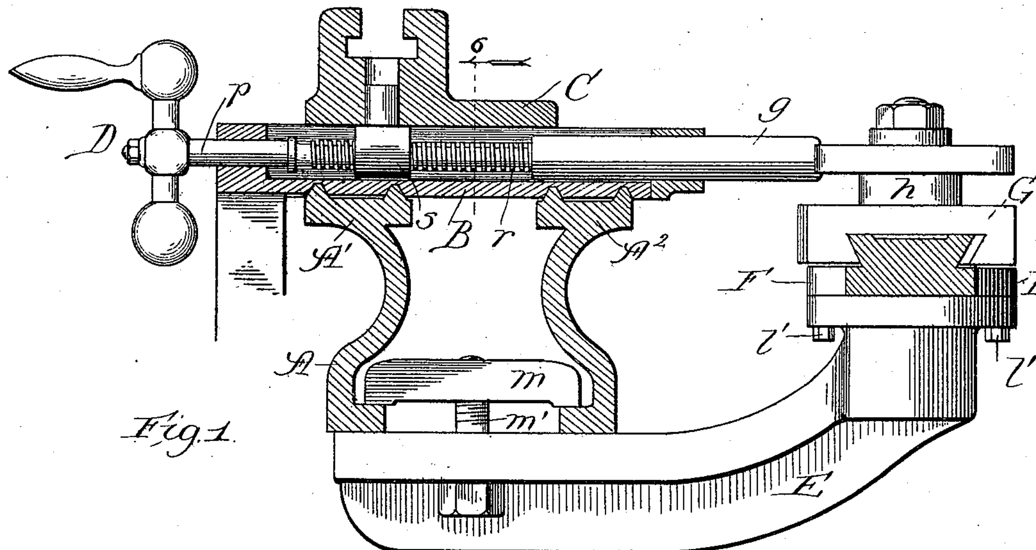

Fig.1.

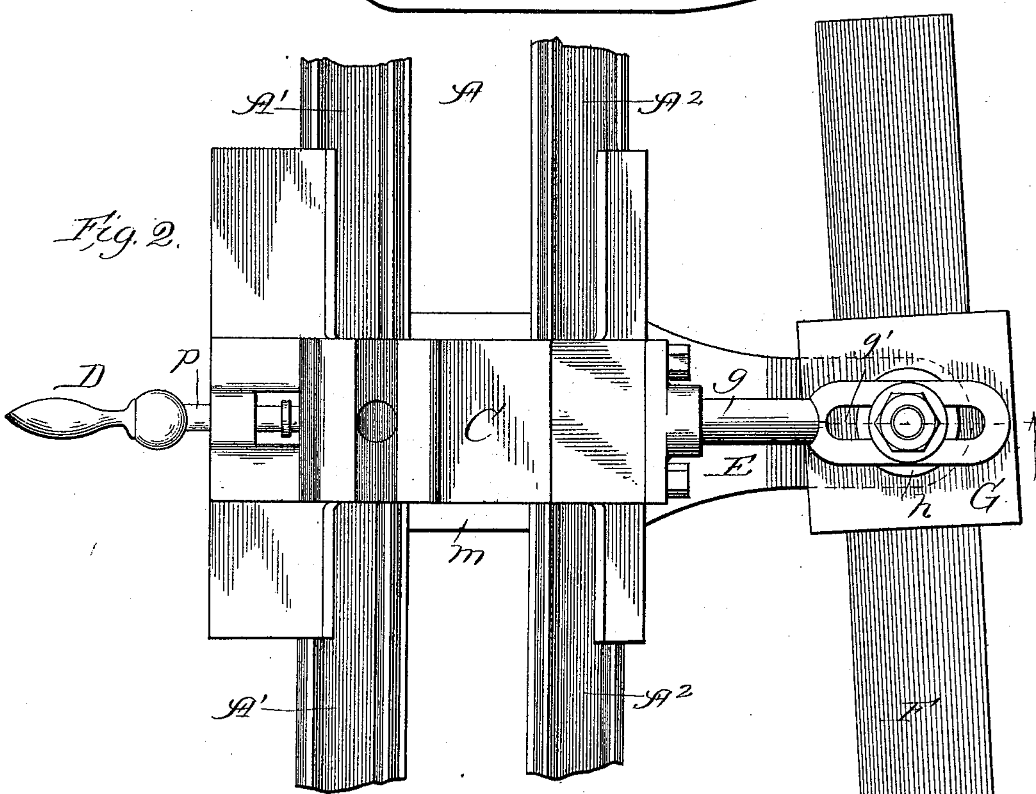

Fig. 2.

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(No Model.)

2 Sheets—Sheet 2.

J. BERG.

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Fig. 3.

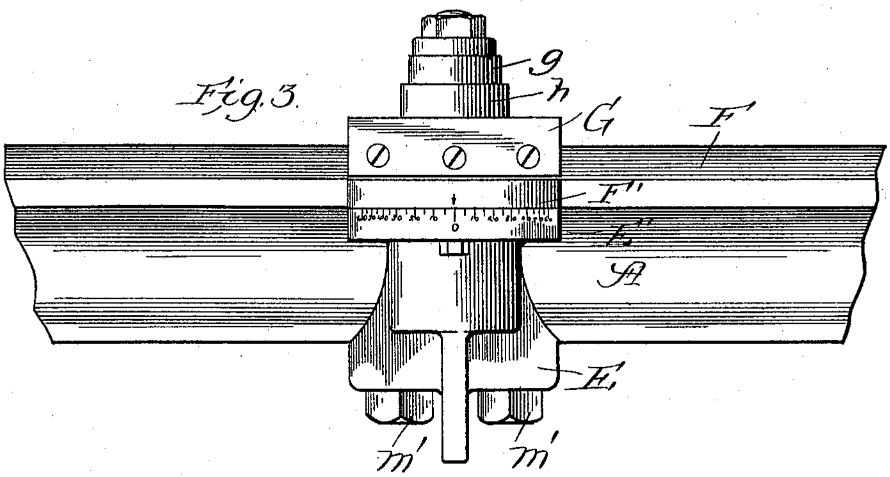


Fig. 4.

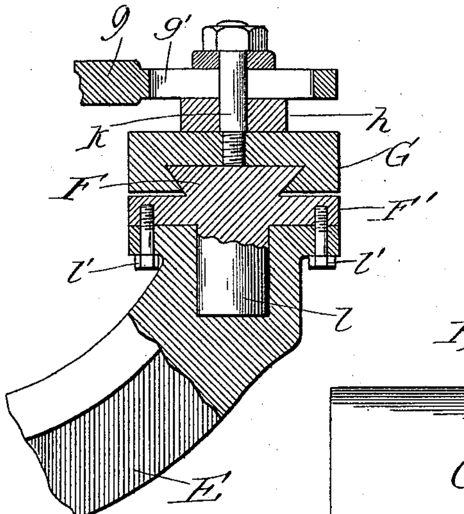


Fig. 5.

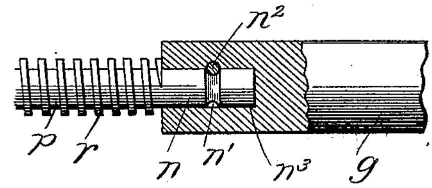


Fig. 6.

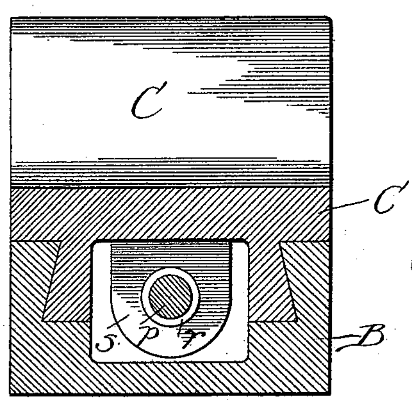
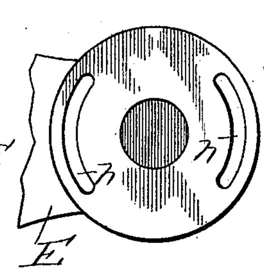


Fig. 7.



Witnesses:
Chas. E. Gaylord,
Lute J. Alter

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN BERG, OF CHICAGO, ILLINOIS.

TAPERING ATTACHMENT FOR LATHES.

SPECIFICATION forming part of Letters Patent No. 587,385, dated August 3, 1897.

Application filed October 15, 1896. Serial No. 608,938. (No model.)

To all whom it may concern:

Be it known that I, JOHN BERG, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Tapering Attachments for Lathes, of which the following is a specification.

My invention relates to an improvement in tapering attachments for lathes; and my object is to greatly simplify the construction of such attachments and permit their use on lathes of comparatively small clearance.

A further object is to provide a form of attachment which will allow its ready application to lathes already built which were not designed for use in connection with such attachments.

In the accompanying drawings, Figure 1 is a vertical transverse section of the lathe-bed with my improvements in place; Fig. 2, a broken plan view of the same; Fig. 3, a broken view in elevation of the adjustable guide-bar with the slide thereon; Fig. 4, a broken sectional view showing the connection between the slide and the rod forming the connection with the tool-post slide; Fig. 5, a view showing a detail of the joint between the connecting-rod and the tool-post-slide screw; Fig. 6, a section taken at the line 6 on Fig. 1 and viewed in the direction of the arrow; and Fig. 7, a broken plan view of the guide-bar support.

A is the lathe-bed, provided with longitudinal guides A' A^2 and having suitable supports. (Not shown.) B is the slide which moves upon said guides and which in turn supports a tool-post cross-slide C. The slide C is provided with a downwardly-extending lug s, internally threaded to receive a cross-feed screw r. The screw r is provided with a shank p of suitable length, journaled in the slide B, an operating-handle D at one end, and at its opposite end with a reduced portion n, having a circumferential groove n'. (See Fig. 5.)

E is a support for an adjustable guide-bar F. The attachment E is fixed to the lathe-bed near the center of the length of the latter by means of suitable clamping-bars m, resting upon the ribs usually provided at the inner lower edges of the lathe-bed and by bolts m'.

The attachment E is provided with a socket (see Fig. 4) in which is journaled a post l on the bar F, and with a graduated cylindrical surface E', which corresponds with a similar surface F' on the bar F, having an index-pointer thereon. The bar F is held in place at the proper angle by means of clamp-screws l', movable in slots h of the support E. G is a slide which moves upon the guide-bar F and is provided with a stud k, a washer h, and a connecting-rod g, having an elongated opening g' for adjustment. At its opposite end the rod g is provided with a socket n^3 (see Fig. 5) to receive the end n of the cross-feed screw. A pin n^2, tangential to the reduced portion of the screw at the groove n' and passing through the socket, insures a rotatable joint. This mode of connection between the slide on the taper attachment and the tool-post slide permits movement of the tool-post within comparatively long range and this with the use of a single cross-slide, thus allowing the use of the attachment on small lathes.

The operation is as follows: The guide-bar F may be set at any desired angle—as, for instance, that shown in Fig. 2. The stock is of course properly centered parallel with the lathe-guides, while the cross-slide moves upon its guide to keep in a path parallel to the guide-bar F as the tool is automatically advanced lengthwise of the machine. As will be seen, the thrust of the screw r is transmitted to the rod g at the pin n^2, while the handle may be at some distance from the slide C.

While I prefer to construct my improved attachment in all respects as shown and described, yet it may be varied in matter of details without departure from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a lathe, the combination with a lathe-bed provided at its inner lower edges with longitudinal ribs, and a cross-feed slide, of a detachably-supporting attachment carrying an adjustable guide-bar, a clamping-bar resting upon said ribs, bolt connection between the lower end of said supporting attachment and said clamping-bar, a slide upon said adjustable guide, and connecting means between said slide and the cross-feed slide, substantially as and for the purpose set forth.

2. In a lathe, the combination with the

lathe-bed and the cross-feed slide, of an attachment carrying a guide-bar, a slide upon said guide-bar, and connecting means between said slide and the cross-feed slide, comprising, in combination, a connecting-rod having at one end an adjusting-slot and at its opposite end a socket, a bolt connecting said rod to the guide-bar, the cross-feed screw having a reduced end provided with a circumferential groove, and a pin passing through said socket of the connecting-rod and tangentially to said reduced end of the cross-feed screw at its groove to form a rotatable joint, substantially as and for the purpose set forth.

3. In a lathe, the combination with the lathe-bed and cross-feed slide, of a detachable guide-bar support clamped to the lathe-bed near its center and provided with a socket, a guide-bar having a post journaled in said socket, a graduating-scale and index on said posts, a slide upon said guide-bar, a clamp-screw for the guide-bar, and connecting means between said slide and said cross-feed slide comprising an adjustable connecting-rod having a socketed end, the cross-feed screw having a reduced end provided with a circumferential groove, and a pin passing through said socket and into the groove on said cross-feed screw, all being constructed and arranged to operate substantially as and for the purpose set forth.

JOHN BERG.

In presence of—
J. H. LEE,
H. J. FROST.