No. 785,828. PATENTED MAR. 28, 1905.

J. PEELLE.

BORING ATTACHMENT FOR LATHES.

APPLICATION FILED SEPT. 27, 1902.

Fig. 1.

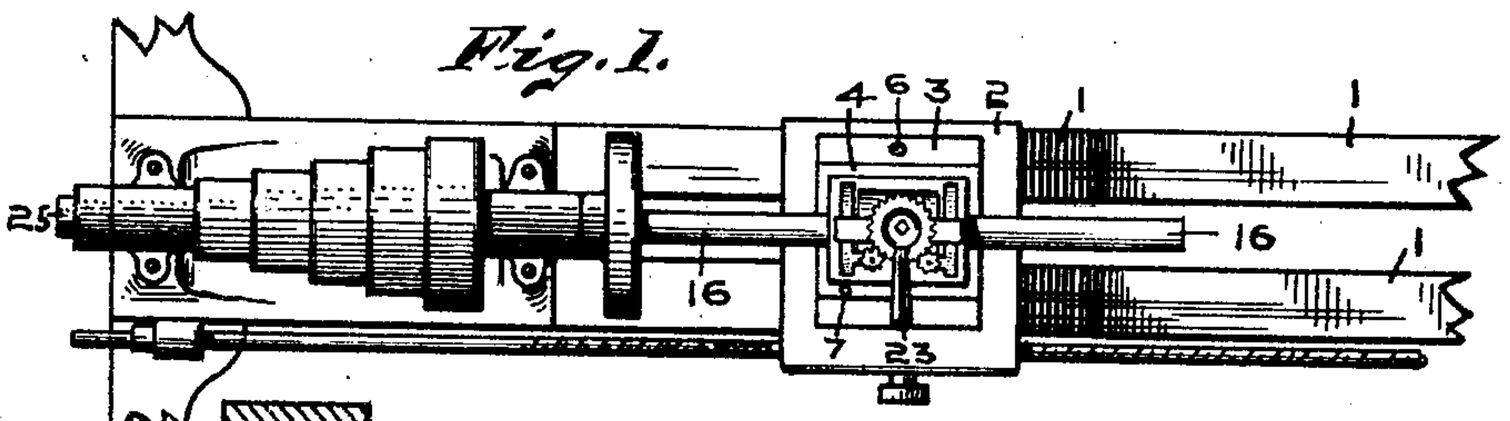


Fig. 2.

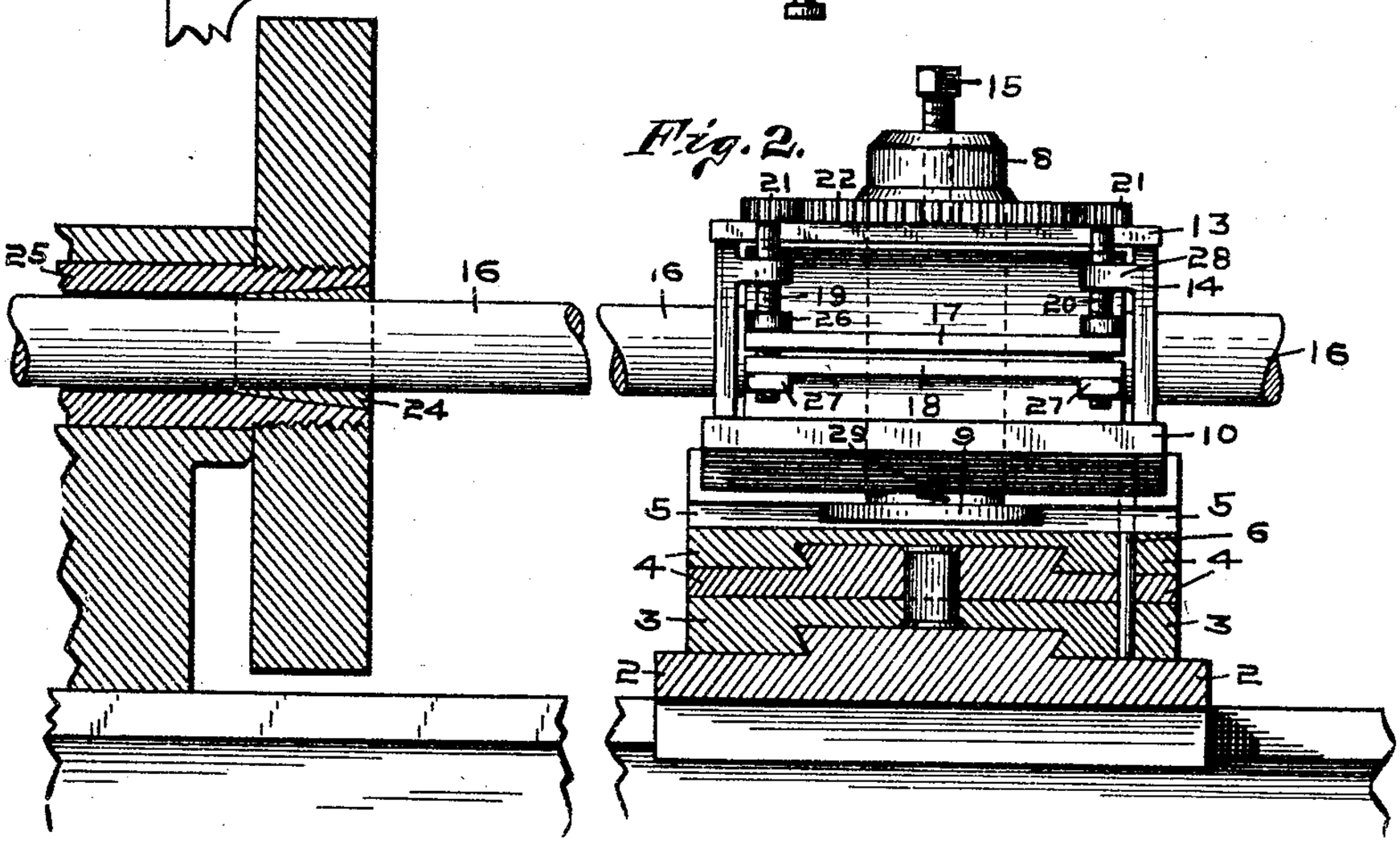
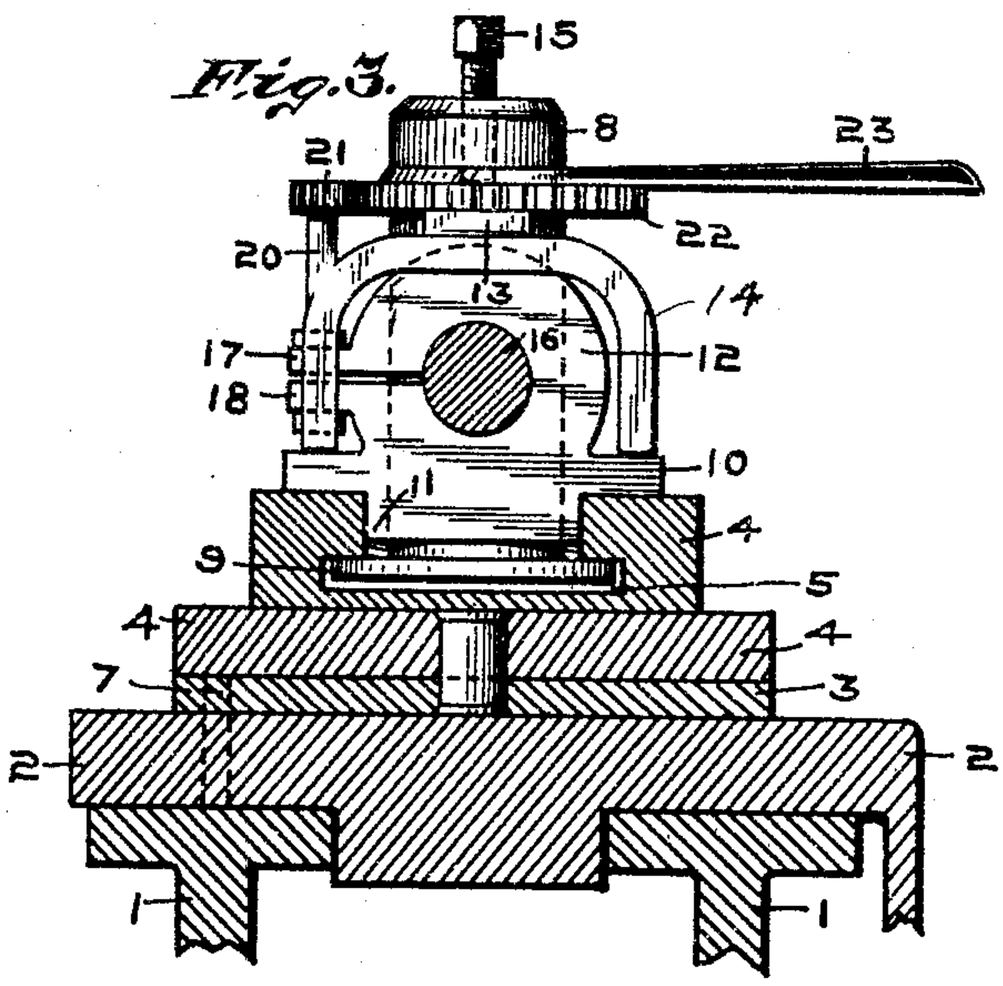


Fig. 3.



WITNESSES:

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No. 785,828. Patented March 28, 1905.

UNITED STATES PATENT OFFICE.

JOHN PEELLE, OF INDIANAPOLIS, INDIANA

BORING ATTACHMENT FOR LATHES.

SPECIFICATION forming part of Letters Patent No. 785,828, dated March 28, 1905.

Application filed September 27, 1902. Serial No. 125,047.

To all whom it may concern:

Be it known that I, JOHN PEELLE, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Boring Attachments for Lathes, of which the following is a specification.

This invention relates to boring-tool holders adapted for attachment to a lathe tool-post; and the object is to provide a tool-holder which may be quickly and accurately set in the longitudinal center of the lathe so as to be absolutely rigid, while allowing the adjustment of the boring-bar in a rotary or a longitudinal direction.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the accompanying drawings, in which similar numerals of reference indicate corresponding parts in all of the figures, Figure 1 is a top or plan view of a lathe provided with my invention; Fig. 2, a detail in longitudinal central section of the lathe head and carriage and cross-slide with my invention in side elevation; and Fig. 3 is a cross-section of the lathe-carriage and cross-slide, showing the invention in end elevation.

1 represents the lathe-bed, 2 the carriage, 3 the cross-slide, and 4 the compound slide-rest, all of usual and well-known construction. The cross-slide and compound slide-rest are set with the slot 5 of the latter exactly alined with the longitudinal center of the lathe, and this position is made absolute and always quickly obtainable by means of the dowel-pins 6 and 7, inserted in suitable holes bored through the slide-rest into the cross-slide and through the cross-slide into the carriage, respectively.

8 is the tool-post, having the usual flanged head 9 to engage the shoulders of slot 5. The body of the post extends through the slot in the usual manner, and instead of the usual tool-post ring I provide a base 10, extending on either side of the slot and having an under side extension or flange 11, which exactly fits the slot 5. This base has an upward cylindrical extension 12, and through all is a suitable opening for the passage of the post 8, as shown by dotted lines in Figs. 2 and 3. Above the cylindrical extension transversely of post 8 is an opening through which a bar 13 is passed, and the projecting ends of said bar rest upon the inverted-U-shaped supports 14, the legs of which rest upon the base 10. A set-screw 15, passing down through the top of the tool-post 8, bears against the bar 13, and the latter bearing upon the U-shaped supports 14 and the latter upon the base 10 forces the post 8 upward, thereby clamping the head 9 against the shoulders of the slot 5.

The cylindrical extension 12 has its longest dimensions longitudinally of the lathe, and after it is securely clamped in position it is bored out with a boring-tool held in the revolving head of the lathe, whereby a perfectly-centered bore is obtained. In this bore the boring-bar 16 is held. The tool-post 8 has an opening through it in order to permit of the passage of the bar 16 therethrough. The usual cutting-tools are secured in the usual manner to this bar, which makes a close fit in the bore of said cylindrical extension or sleeve 12. To facilitate the insertion of the boring-bar 16, the said sleeve is split longitudinally along one side, as shown, and flanges 17 and 18 are provided on either side of said split. These flanges are drawn together or separated by means of the threaded bolts 19 and 20, having the fixed collars 26, which bear against the upper flange and the nuts 27 under the lower flange, which nuts are held from rotating by their contact with the sides of the sleeve, as shown in Fig. 3. To operate said bolts simultaneously and quickly, I provide the upper ends of each with toothed wheels 21 21, the teeth of which mesh with the teeth or cogs of the larger intermediate wheel 22. The latter has a handle 23 by which the wheel 22 is operated. To hold the bolts and to keep the supports 14 in position when the screws are relaxed, I provide the lateral lugs 28 from the supports 14 and pass the bolts through suitable holes in said lugs. Springs 29 are placed between the flanged head 9 of the tool-post and shoulders 5 to keep the parts assembled when the set-screw 15 is loosened.

For some purposes, such as making deep

bores or the like, it is desirable to doubly support the boring-bar, and I therefore provide for supporting the inner end of said bar in the center sleeve 24 in the spindle 25 of the lathe-head. By this means both ends of the boring-bar are supported, and where it is necessary the boring-bar may be run through the hollow spindle of the lathe.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit of this invention.

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

1. In a tool-holder of the kind specified, a base having an under side flange to fit in the slot of the slide-rest of a lathe, a longitudinally-split sleeve integral with the base, inverted-U-shaped supports placed transversely of the sleeve, a tool-post passing through the said flange, base and sleeve, having a head to engage the shoulder of the slide-rest slot, a bar passing transversely through the post and resting upon the said U-shaped supports, and a set-screw through the top of the tool-post bearing against the said bar.

2. In a tool-holder, a base having an under side flange to fit the slot of the slide-rest of a lathe, a sleeve integral with the base having a longitudinally-split side with flanges on each side of the split, inverted-U-shaped supports placed transversely of the sleeve with their stems resting upon the said base, a tool-post passing through the flange, base and sleeve, having a flanged head engaging the shoulder of the slide-rest slot, a bar passing transversely through the post and resting upon the said U-shaped supports, a set-screw screwing through the top of the post against the transverse bar and means for expanding and contracting the bore of the split sleeve.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 20th day of September, A. D. 1902.

JOHN PEELLE. [L. S.]

Witnesses:
JOSEPH A. MINTURN,
JOHN B. SHERWOOD.