G. F. KRIEGER.

BORING BRACKET.

APPLICATION FILED SEPT. 17, 1918.

**1,332,731.**

Patented Mar. 2, 1920.

2 SHEETS—SHEET 1.

Fig. 1.

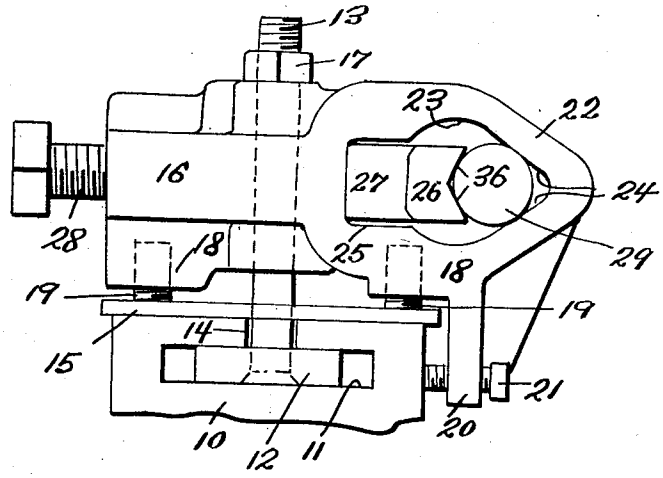
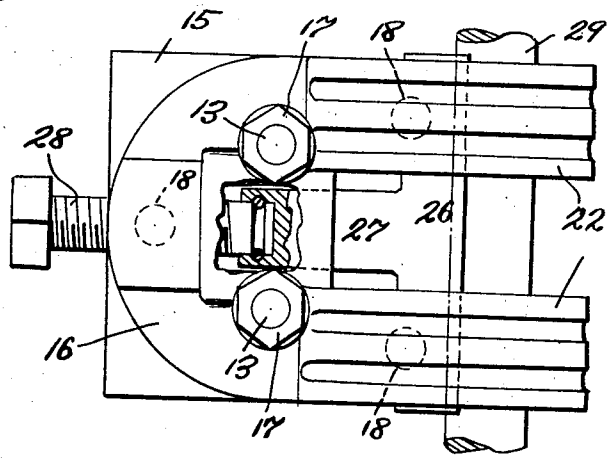



Fig. 3.




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2 SHEETS—SHEET 2.

Fig. 2.

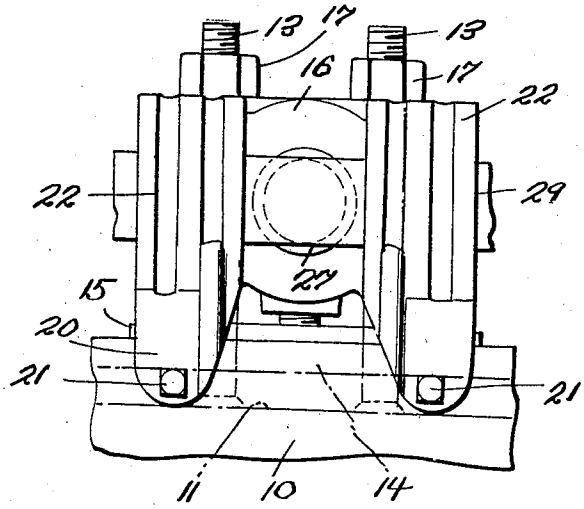
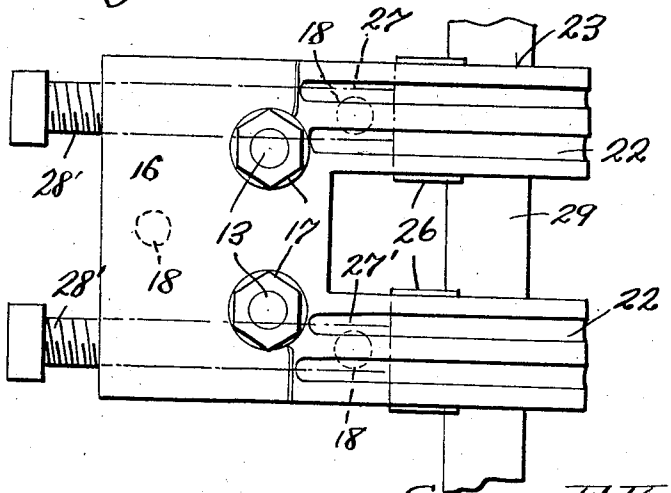



Fig. 4.




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# UNITED STATES PATENT OFFICE.

GEORG F. KRIEGER, OF GRAND RAPIDS, WISCONSIN.

## BORING-BRACKET.

1,332,731. Specification of Letters Patent. Patented Mar. 2, 1920.

Application filed September 17, 1918. Serial No. 254,409.

*To all whom it may concern:*

Be it known that I, GEORG F. KRIEGER, a citizen of the United States, residing at Grand Rapids, in the county of Wood and State of Wisconsin, have invented certain new and useful Improvements in Boring-Brackets, of which the following is a specification.

This invention relates to new and useful improvements in tool holders or boring brackets, designed to clamp a boring tool, the primary object of the invention being to provide a device of simple construction which will hold the boring tool or bar rigidly, and which will permit the same to be attached or removed with convenience and facility.

With the above and other objects in view, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described herein and set forth with particularity in the claims appended hereto.

Reference is had to the accompanying drawings forming a part of this application, in which like reference characters indicate the corresponding parts throughout the several views, in which—

Figure 1 is an end elevation of my improved boring bracket or tool holder, applied to a tool post rest, the latter being shown in sections,

Fig. 2 is a front elevation,

Fig. 3 is a plan view, and

Fig. 4 is a plan view showing a modified form of boring bracket having a plurality of clamping screws.

Referring to the drawings in detail, there is shown a tool post rest 10 having the usual groove or slot 11 for slidably engaging and adjustably receiving the clamping jaw or plate 12 therein, through the medium of a plurality of screw bolts 13, which latter extend through the narrow or restricted portion 14 of the groove or slot 11 and also through coöperating clamping plates 15 mounted on the screws 13 and coöperating with the adjacent face of the tool post rest 10.

The tool holding device or bracket proper, consists of a block or clamp 16 receiving the screw bolts 13 therethrough at spaced points horizontally, suitable nuts 17 being engaged on said bolts for the purpose of securing the device in position as will be obvious. Projecting from the inner face of the casting preferably through the medium of the threaded openings therein and projecting lugs 18, are adjusting screws 19, two of said screws being preferably located near one end portion of the casting and one near the other end, so as to engage the plate 15 whereby the latter will be held in adjusted position so that when the nuts 17 are tightened up, the bracket or tool holder will be drawn toward the tool post rest 10 due to the strain exerted upon the attaching jaw or plate 12 against the overlying or projecting portion of the tool post outwardly of the groove 11. In this way, the device can be accurately vertically adjusted to any desired position. The casting is provided with a pair of lugs 20 having adjusting screws 21 engaged therethrough, to engage the tool post rest 10, so as to adjust the boring bar parallel with the lathe bed, the groove or slot 14 permitting this adjustment inasmuch as said groove is wider than the diameter of the shanks of the screw bolts 13.

The casting is further provided with spaced jaws 22 which are rigid, and entirely closed to provide keyhole shaped slots or openings 23 having oppositely sloping walls 24 and a portion 25 of reduced transverse dimensions. Fitted in the slots 23 or openings in the jaws 22, is a movable clamping jaw 26, which in the form shown in the Figs. 1, 2 and 3 of the drawings, is provided with a shank portion 27 slidable in the bight portion of the casting and extending from the movable jaw 26. This movable jaw is capable of adjustment, through the medium of a screw 28 threaded through the bight portion of the body of the bracket or tool holder and engaging said shank or stem 27, so as to force the jaw into engagement with the boring tool or bar designated 29. It is to be understood that any form of boring tool for lathes, drills, and millers, may be used with equal facility. It is also to be noted that the movable clamping jaws are provided with a V-shaped clamping face as shown at 26 to coöperate with the inclined walls of the inverted V-shaped face shown at 24.

In the form of the invention shown in Fig. 4 of the drawings, the casting is provided with a pair of clamping jaws 26′ having shank portions or stems 27′ engaged by

adjusting and clamping screws 28′, the latter being located in spaced relation and in alinement with the loops 22, so as to tightly clamp large size works. It is also to be noted that the movable jaw 26′ is confined in the portion 25 of the opening 23 in each jaw or loop 22, thereby effectively guiding the movable or clamping jaw into engagement with the tool while permitting the accommodation of a larger boring tool within the portion 23.

It will thus be seen that I have provided an efficient form of boring bracket or tool holder which can be very easily and conveniently adjusted to the desired height and center lined within the few thousandths part of an inch and can be applied to different lathes with facility. The device will also very tightly hold the work, and can be very economically produced. In addition, it is also strong and durable and easy to set up and take apart.

From the foregoing description taken in connection with the accompanying drawings, it is thought that a clear and comprehensive understanding of the construction, operation, and advantages of my invention may be had, and while I have shown and described the device as embodying a specific structure, I desire that it be understood that such changes may be made in said structure as do not depart from the spirit and scope of the invention as claimed.

Having thus described my invention what I claim is new, and desire to secure by Letters Patent, is:

1. A tool holder comprising a body having spaced jaws formed with key-hole shaped slots provided with oppositely sloping faces, a clamping jaw in said slots, a stem on the jaw and working through the body, a feed screw engaging the stem, lugs projecting from the body, adjusting screws operating through the lugs to engage a tool post rest, adjusting screws carried by the body and engaging the tool post rest at right angles to the first named adjusting screws, and means for securing the body to said tool post rest.

2. A tool holder comprising a body having key-hole shaped slotted jaws, means for clamping a piece of work within the slotted jaws, bolts passed through the body, means on the bolts to engage in the grooves in a tool post rest, adjusting screws carried by the body, a plate on the bolts and acted upon by the adjusting screws to engage the face of the tool post rest, and adjusting nuts on the bolts.

In testimony whereof, I affix my signature hereto.

GEORG F. KRIEGER.