

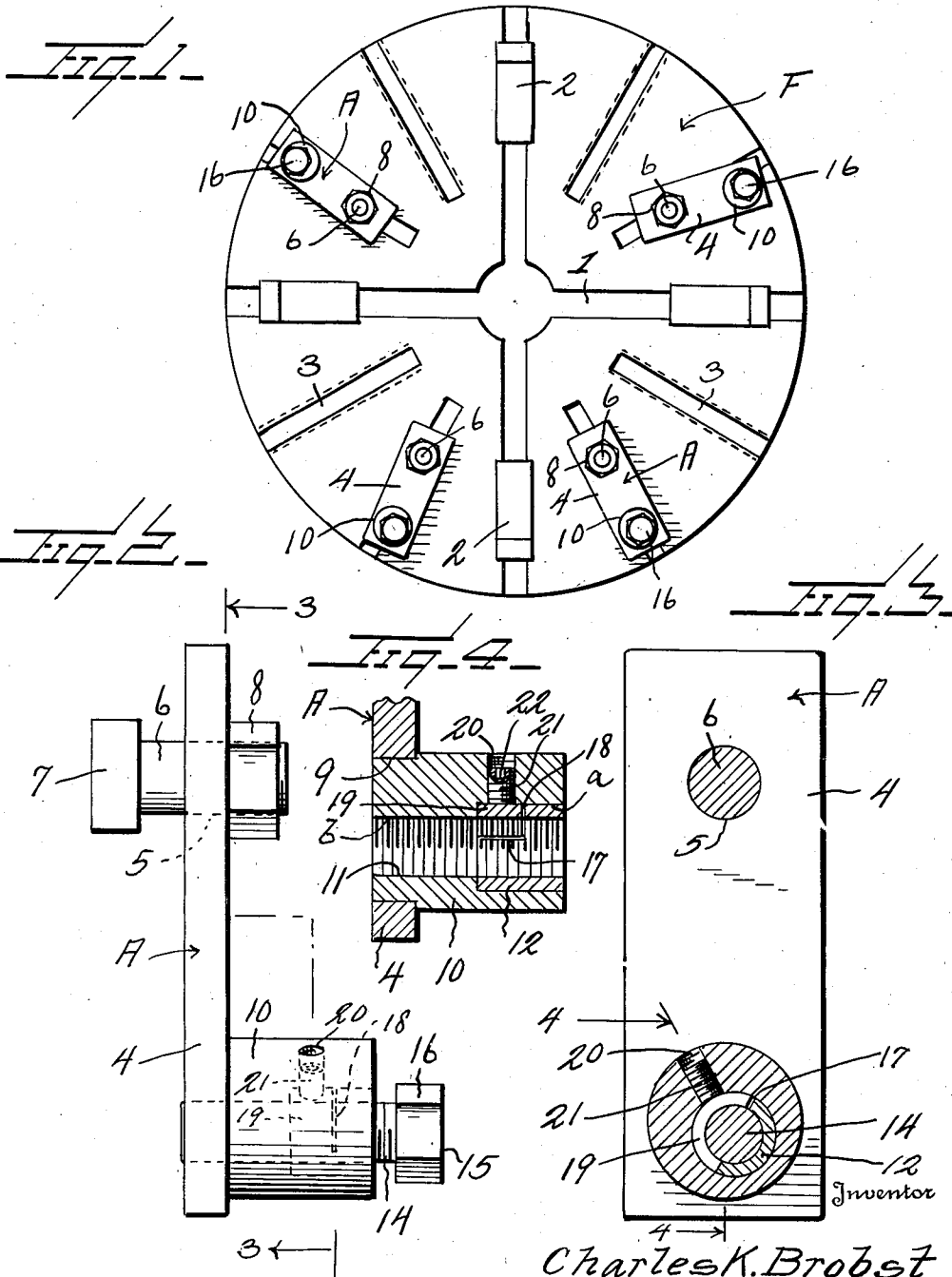
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TRUING JACK

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TRUING JACK

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3 Claims. (Cl. 82—34)

This invention relates to a truing jack for use with the face plate of a lathe chuck, and it is a particular object of the invention to provide a device of this kind so constructed and assembled to eliminate displacement or derangement of the jack as a result of the centrifugal action to which it may be subjected when the face plate is in rotation.

It is an object of the invention to provide a jack of this kind which can be mounted upon the face plate in desired selected position whereby the efficacy of the jack is materially increased and particularly in connection with precision work.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved truing jack whereby certain important advantages are attained, as will be hereinafter more fully set forth.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawing, wherein—

Figure 1 is an elevational view of a face plate for a lathe chuck having mounted thereon jacks constructed in accordance with an embodiment of my invention;

Figure 2 is a view in side elevation of the jack unapplied;

Figure 3 is a sectional view taken substantially on the line 3—3 of Figure 2; and

Figure 4 is a detailed sectional view taken substantially on the line 4—4 of Figure 3.

As disclosed in the accompanying drawing, F denotes a conventional type of face plate for a lathe chuck and which is provided with the perpendicularly related grooves or channels 1 with which are associated the required work engaging clamps 2. Between the grooves or channels 1 are arranged the supplemental grooves or channels 3 disposed substantially radially of the face plate, and with which are associated the jacks A constructed in accordance with an embodiment of my invention.

My improved jack as herein disclosed comprises an elongated base plate 4 of desired configuration and dimensions, preferably rectangular in form. One end portion of this plate 4 is provided therethrough, at substantially its transverse center, with an opening 5 through which is disposed the shank 6. This shank 6, at the under side of the plate 4, is provided with a head or enlargement 7 which is adapted to ride within one of the grooves 3. This shank 6 is of a length

to extend a desired distance beyond the upper or outer face of the plate 4 so that a clamping nut 8 may be threaded thereon for holding the plate 4 in desired selected position upon the face plate F. The plate 4 may be adjusted as desired lengthwise of its groove or channel 3, may be reversed, or may be axially adjusted about the shank 6 as preferred, to assure effective coaction with the work.

The opposite end portion of the plate 4 is provided therethrough with a relatively large opening 9 in which is tightly pressed an end portion of a cylindrical block 10 of desired dimensions. This block 10 extends beyond the outer or front face of the plate 4 and at a point eccentric to its axial center has disposed lengthwise therethrough an opening 11. The outer portion *a* of this opening 11 is enlarged and snugly fitting in said enlarged portion *a* is a sleeve 12. Normally, the bore of the sleeve 12 and the inner or restricted portion *b* of the opening 11 are of substantially the same diameter and said sleeve 12 and the portion *b* of the opening 11 are internally threaded to allow for the adjustable engagement therethrough of the elongated and relatively heavy threaded shank 14. This shank 14, at its outer end, is provided with an enlargement or head 15 having suitable side facets 16 to permit a suitable implement to be engaged with said head to extend or retract the shank 14 with respect to the block 10 as may be required in order to effect the desired truing of the work in connection with the face plate F. It is to be stated that in practice the head or enlargement 15 has direct contact with the work.

In practice the face plate F rotates at a high speed and, therefore, it is essential that means be provided for effectively holding or locking the shank 14 in its desired position. As comprised in the present invention, the sleeve 12, substantially midway its ends, is provided with a longitudinal slit 17 extending from the inner end of the sleeve 12 to a point substantially midway of the sleeve. The inner end of this slit 17 has in communication therewith a circumferentially disposed slit 18 extending substantially one-half way around the sleeve 12, whereby is provided an elongated and substantially semi-circular tongue 19 possessing sufficient inherent resiliency to normally coincide with the sleeve 12 proper. The block 10 is provided therethrough with a radially disposed opening 20 which communicates with the inner part of the enlarged portion *a* of the opening 11, and over the inner end of which opening 20 is disposed the tongue 19.

Threading into this opening 20 is a set screw 21 the outer end portion of which being provided with a socket 22 into which is adapted to be engaged a suitable key whereby the screw 21 may be rotated as required to move the screw 21 inwardly or to retract the same. It is to be pointed out that the assembly is such that the opening 20 is disposed through the thicker portion of the block 10 to one side of the opening 11 so that the screw 21, in its effective and released positions, will be entirely housed within the opening 20.

When the shank 14 is to be adjusted to effect the desired truing of the work, the screw 21 is retracted or moved outwardly a distance sufficient to allow the tongue 19 to be in its normal position so that the shank 14 may be readily threaded outwardly or inwardly with respect to the block 10 as may be desired. After the desired adjustment of the shank 14 has been effected, the screw 21 is moved inwardly to cause the tongue 19 to tightly bind against the shank 14 and thereby effectively lock the shank 14 in its required adjustment.

From the foregoing description it is thought to be obvious that a truing jack constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated.

I claim:

1. A truing jack for the face plate of a lathe chuck comprising a plate, means for securing the plate to the face plate, a block carried by the second plate and extending outwardly beyond the outer face thereof, said block having an opening disposed therethrough, a portion of said opening being enlarged, a sleeve fitted within said enlarged portion of the opening of the block, one end portion of the sleeve being slotted to provide a tongue extending circumferentially and partly around the sleeve, a shank threading through the sleeve and the opening of the block, the outer

end of the shank to have contact with the work to be trued, and means extending through the block engaging the tongue of the sleeve for forcing the tongue against the shank to lock the shank in a selected adjusted position.

2. A truing jack for the face plate of a lathe chuck comprising a plate, means for securing the plate to the face plate, a block carried by the second plate and extending outwardly beyond the outer face thereof, said block having an opening disposed therethrough, a portion of said opening being enlarged, a sleeve fitted within said enlarged portion of the opening of the block, one end portion of the sleeve being slotted to provide a tongue extending circumferentially and partly around the sleeve, a shank threading through the sleeve and the opening of the block, the outer end of the shank to have contact with the work to be trued, and means extending through the block engaging the tongue of the sleeve for forcing the tongue against the shank to lock the shank in a selected adjusted position, the means for locking the shank including a screw threading into the block and contacting with the tongue of the sleeve.

3. A truing jack for the face plate of a lathe chuck comprising a plate, means for securing the plate to the face plate, a block carried by the second plate and extending outwardly beyond the outer face thereof, said block having an opening disposed therethrough, a sleeve fitted within the opening of the block, one end portion of the sleeve being slotted to provide a tongue extending circumferentially and partly around the sleeve, a shank extending within the opening of the block and threading through the sleeve, the outer end of the shank to have contact with the work to be trued, and means extending through the block engaging the tongue of the sleeve for forcing the sleeve against the shank to lock the shank in a selected adjusted position.

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