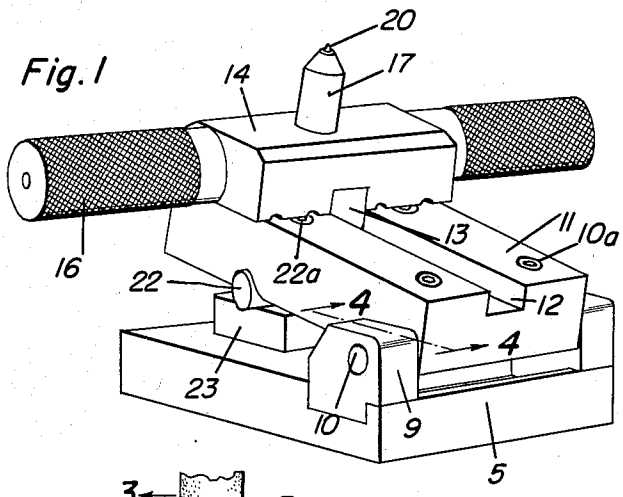
Feb. 7, 1956 J. H. BARRETT 2,733,702

ANGLE WHEEL DRESSER

Filed June 1, 1953

Fig. 1



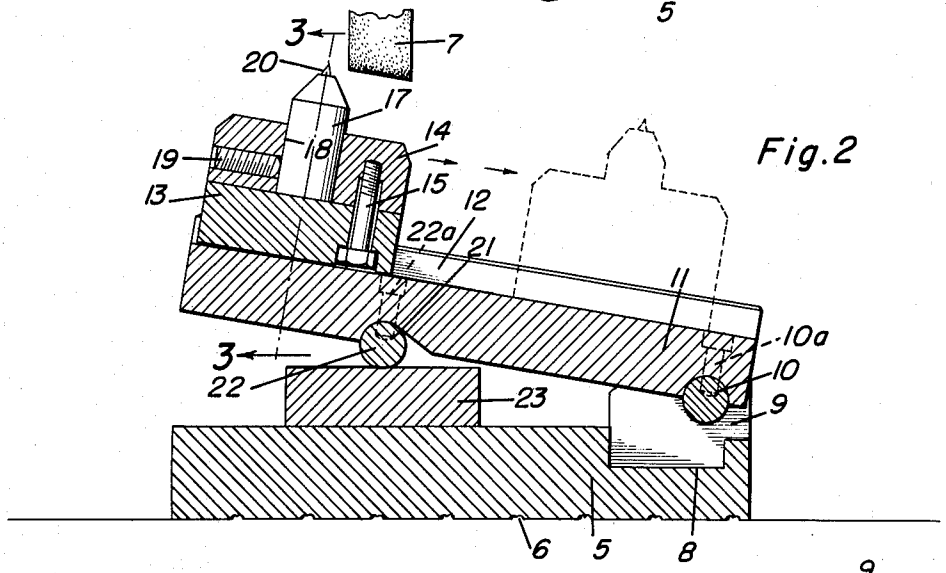




Fig. 2

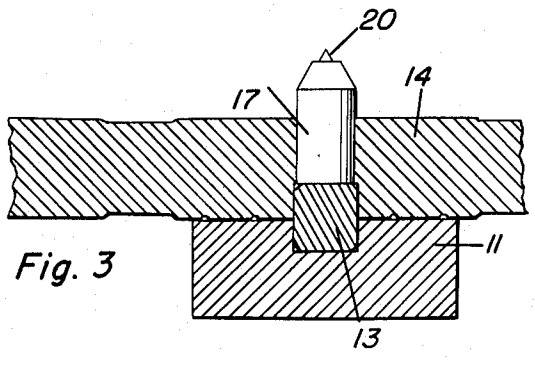



Fig. 3

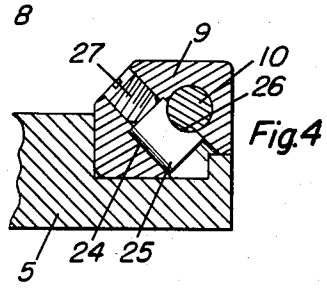



Fig. 4

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United States Patent Office 2,733,702 Patented Feb. 7, 1956



2,733,702

# ANGLE WHEEL DRESSER

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Application June 1, 1953, Serial No. 358,681

2 Claims. (Cl. 125—11)

The present invention relates to new and useful improvements in tools for dressing grinding wheels accurately to any desired angle and for use as an inspection instrument or other purposes.

An important object of the invention is to provide a pivoted sine plate or tool supporting plate in which the tool mounting slidable into and out of work engaging position along the angle of the plate, and further to provide novel locking means for the pivot of the plate which forces the plate downwardly on an angle gauge block to assure extreme accuracy of the angle.

Another object is to provide a device of this character of simple and practical construction, which is efficient and reliable in operation, relatively inexpensive to manufacture and otherwise well adapted for the purpose for which the same is intended.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view;

Figure 2 is a longitudinal sectional view;

Figure 3 is a transverse sectional view taken on a line 3—3 of Figure 2, and

Figure 4 is a fragmentary sectional view of the pivot lock.

Referring now to the drawing in detail, wherein for the purpose of illustration I have disclosed a preferred embodiment of my invention, the numeral **5** designates a flat base having diagonal grooves **6** in its bottom to facilitate sliding of the base on a supporting structure beneath a grinding wheel to be dressed.

The rear upper surface of base **5** is formed with a transverse groove **8** in which a pair of pivot blocks **9** are suitably secured and which rotatably support a pivot rod or pin **10**. A sine plate or tool supporting plate **11** is fixed at its rear end to rod or pin **10** by Allen cap screws **10***a* for swinging the front end of the plate vertically.

The upper surface of plate **11** is formed with a longitudinally extending groove or keyway **12** in which a key **13** is slidable and a tool mounting block **14** is secured on top of the key by an Allen cap screw or the like **15** and with the bottom of the block also grooved for sliding on the upper surface of plate **11**. Knurled handles **16** project outwardly at opposite sides of block **14**. A cylindrical tool holder **17** is secured in a recess **18** in the top of block **14** by a set screw **19** and a diamond or other suitable grinding wheel dressing element **20** is mounted in the upper end of the tool holder.

The underside of plate **11** adjacent its front end is



formed with a transverse groove **21** in which a stop pin **22** is secured by screws **22***a* to protrude below the surface of the plate and is adapted to rest on an angle gauge block **23** positioned on top of base **5**.

Each pivot block **9** is formed with a bore **24** which is inclined forwardly and intersected by rod or pin **10** and a locking pin **25** is slidable in the bore and is formed with a transverse groove **26** in its periphery in which the rod or pin **10** is seated. A pressure screw **27** is threaded in the upper front end of bore **24** to engage locking pin **25** and force the latter rearwardly in binding relation with rod or pin **10** to lock the plate **11** in its inclined position. The tightening of set screw **27** to effect the binding action of locking pin **25** also tends to rock rod or pin **10** and force plate **11** downwardly on the gauge block **23** to insure accuracy of the angle as determined by the gauge block.

The device may be used for dressing angles at either side of the wheel with equal facility by reversing the position of the dresser and the dressing element may be adjusted within a relatively wide range to obtain a sharp bevel on the wheel.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. An angle grinding wheel dressing tool comprising a flat base, a pair of bearing blocks on the base, a sine plate positioned above the base, a pivot fixed to the sine plate adjacent the rear end of the latter and rockably supported in said bearing blocks, said sine plate, being swingable vertically and resting at its front end on a gauge block placed on the base, a tool mounting slidably mounted on the sine plate, a locking pin slidably carried by at least one of the bearing blocks and peripherally engaging the pivot, and pressure means engaging and binding the locking pin with the pivot to lock the sine plate in angularly adjusted position.

2. An angle grinding wheel dressing tool comprising a flat base, a pair of bearing blocks on the base, a sine plate positioned above the base, a pivot fixed to the sine plate adjacent the rear end of the latter and rockably supported in said bearing blocks, said sine plate being swingable vertically and resting at its front end on a gauge block placed on the base, a tool mounting slidably mounted on the sine plate, a slidable locking pin in at least one of the bearing blocks and having a transverse groove in which the pivot is seated, and pressure means engaging and subjecting the locking pin to a binding action with the pivot and subjecting the pivot to a turning force to urge the sine plate downwardly on the gage block.

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