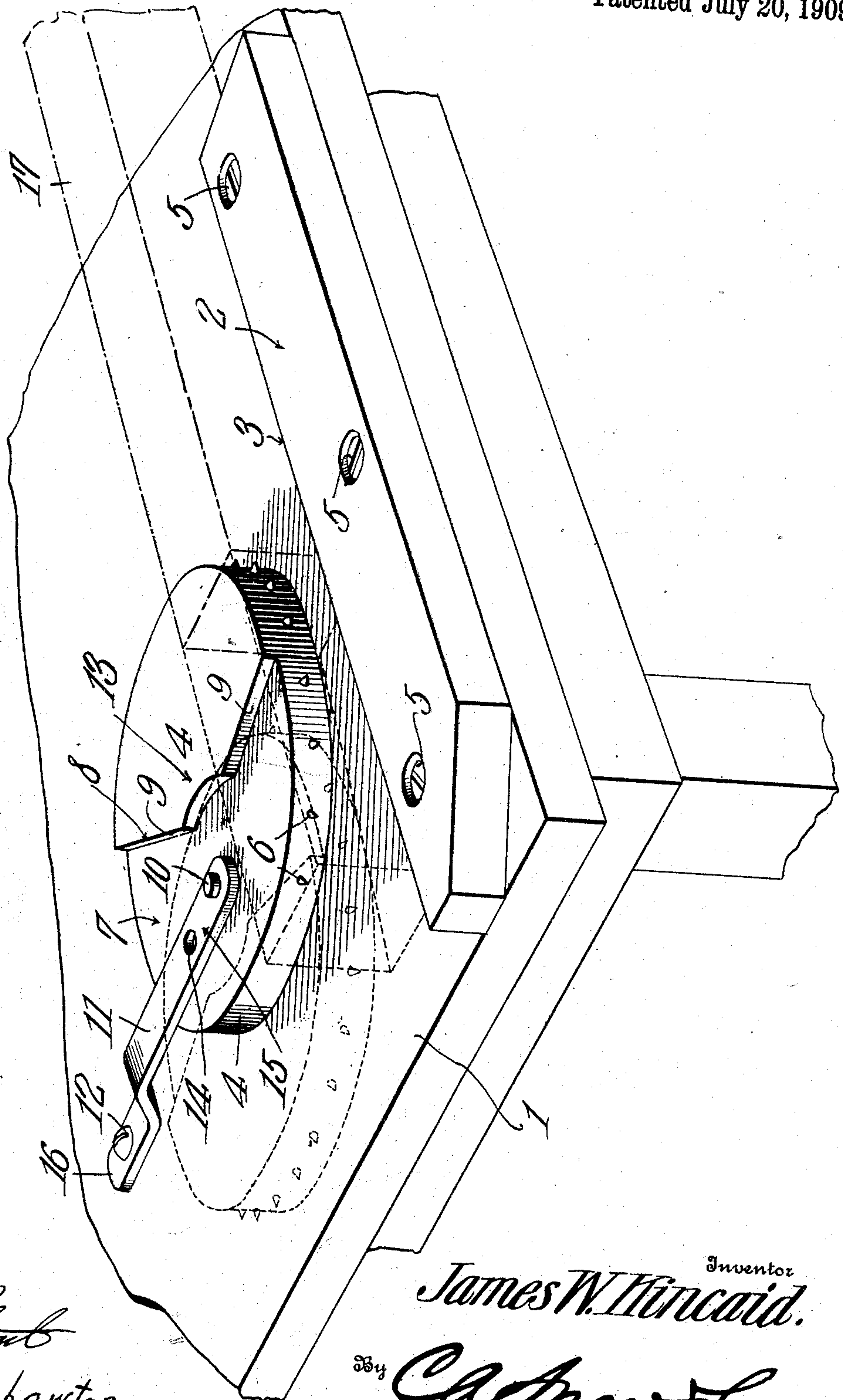


J. W. KINCAID.  
BENCH CLAMP.

APPLICATION FILED JUNE 30, 1908.

928,460.

Patented July 20, 1909.



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES W. KINCAID, OF CRANE, MISSOURI.

## BENCH-CLAMP.

No. 928,460.

Specification of Letters Patent.

Patented July 20, 1909.

Application filed June 30, 1908. Serial No. 441,090.

*To all whom it may concern:*

Be it known that I, JAMES W. KINCAID, a citizen of the United States, residing at Crane, in the county of Stone and State of Missouri, have invented a new and useful Bench-Clamp, of which the following is a specification.

This invention relates to devices designed to retain material upon a workman's bench while being dressed, and commonly known as clamping bench dogs.

It is the aim of this invention to provide, in a merchantable and inexpensive form, a device of the class described which shall be easy to manufacture, facile in operation and devoid of complicated parts; a device which shall perform its office rapidly, positively, and without mutilation of the merchandise upon which it exercises its function; a device which may be readily attached to a workman's bench and quickly removed therefrom; a device which shall firmly hold materials of divers shapes and sizes against forces varying through a wide range, in intensity and direction of application.

With these and other objects in view, as will hereinafter more fully appear, the invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawing and particularly pointed out in the appended claim, it being understood that changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

The accompanying drawing shows in perspective, my invention attached to the upper surface of a work-bench two positions of the clamping-disk or cam being shown.

Referring now to the appended drawing, the numeral 1 designates the upper surface of an ordinary work-bench to which my invention is attached. The device embraces a fixed clamping member 2, having a straight inner edge 3. This fixed clamping member 2 may be made adjustable with respect to its distance from the disk 4, set screws or other well-known means being employed; preferably, it is attached to the bench by the screws 5, but any of the other conventional methods of the joiner's craft adapted to a like end, may be employed.

The movable clamping member 4 may be of any form. It is illustrated as a disk, provided with a plurality of pointed members

6, projecting radially from its edge and I have delineated these pointed members 6, as cylindrical pieces of metal set into the edge of the disk 4 and sharpened at their outer ends to engage firmly the material introduced between the disk 4 and the fixed clamping member 2. From the upper surface 7 of the disk 4, rises the shoulder 8, bounded by the circumference of the disk, the straight vertical faces 9 and the curved face 13. The faces 9 are disposed at an angle to each other and are connected at their inner ends by the curved face 13. The disk 4 is provided with an eccentrically disposed opening, through which passes the removable pintle 10 which should be of sufficient length to engage the stop 11, pass through the disk 4, and, if desired, enter the surface 1 of the bench.

The stop 11 may be fashioned from a piece of strap metal and should be provided with a plurality of vertical openings 14, disposed at either end of the stop 11, and at points upon the portion 15 within the periphery of the disk. The openings in the portion 15 are adapted to receive the pintle 10, and through the opening in the end 16 may be passed the screw 12 or other bench engaging means. The under surface of the stop 11 bears at one end 15 with a slight frictional contact upon the upper surface 7 of the disk 4, and that portion of the stop 11 which extends beyond the circumference of the disk 4, is bent downward into a reversed curve, bringing the lower surface of the end 16 of the stop substantially into the plane of the lower surface of the disk 4, thus providing a bearing face to rest upon the surface 1 of the bench. The stop 11 performs a double office. Primarily, by engaging the faces 9, it prevents the disk 4 from moving into extreme and inoperative positions; it also serves to brace and form a support for the pintle 10.

In attaching my invention to a work-bench, I so dispose the disk 4 that it may swing clear of the fixed clamping member 2. By this construction, the disk 4 may be operated to act as a cam clamping the material to be dressed 17 against the fixed member 2, whether the force applied be a thrust, as imparted by a plane or a pull, as imparted by a draw-knife or spoke-shave, the two positions assumed by the disk 4 being indicated in the accompanying drawing. The pintle 10 is removably mounted in the stop 11 and the disk 4. When a piece of material of moder-



ate width is to be dressed, the pintle 10 will occupy the position shown in the drawing. When however, material of a greater width is to be worked upon, the pintle 10 may be removed, the disk 4 pushed backward and the pintle 10 passed through the opening 14 into engagement with the disk 4, and, if desired, into the upper surface, of the bench. When the pintle 10 occupies the position last above indicated, the excision from the shoulder 8 caused by the curved face 13, will allow the disk 4 to move upon the pintle 10 without coming into contact with the end of the stop 11.

15 Having thus described my invention, my claims are as follows:—

A bench-clamp comprising a support, a fixed jaw thereon, an eccentrically pivoted disk on the support, said disk having a shoulder on its upper face, and a strap secured to the support and extending over the upper face of the disk in the path of the shoulder thereon, and having a plurality of openings to selectively receive the disk pivot.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES W. KINCAID.

Witnesses:

N. G. DOUGLAS,  
R. DOUGLAS.