No. 626,962. Patented June 13, 1899.

F. M. BIRD.

HANGER FOR GRINDING STONES.

(Application filed Dec. 8, 1898.)

(No Model.)

Fig. 1.

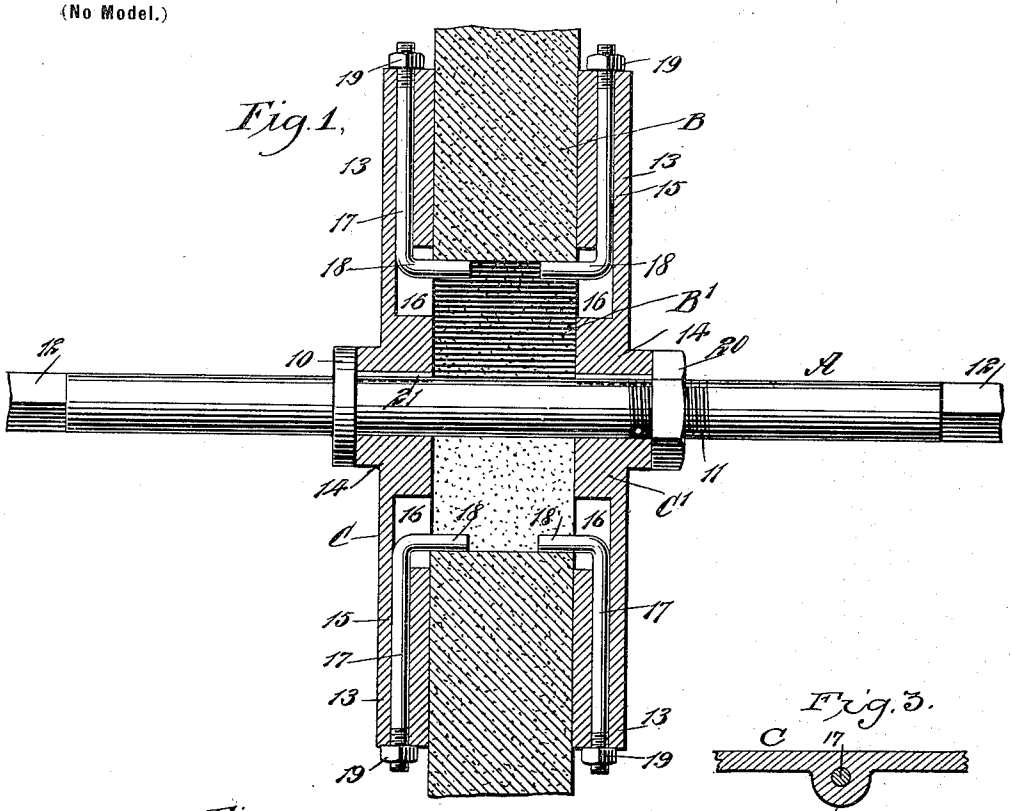
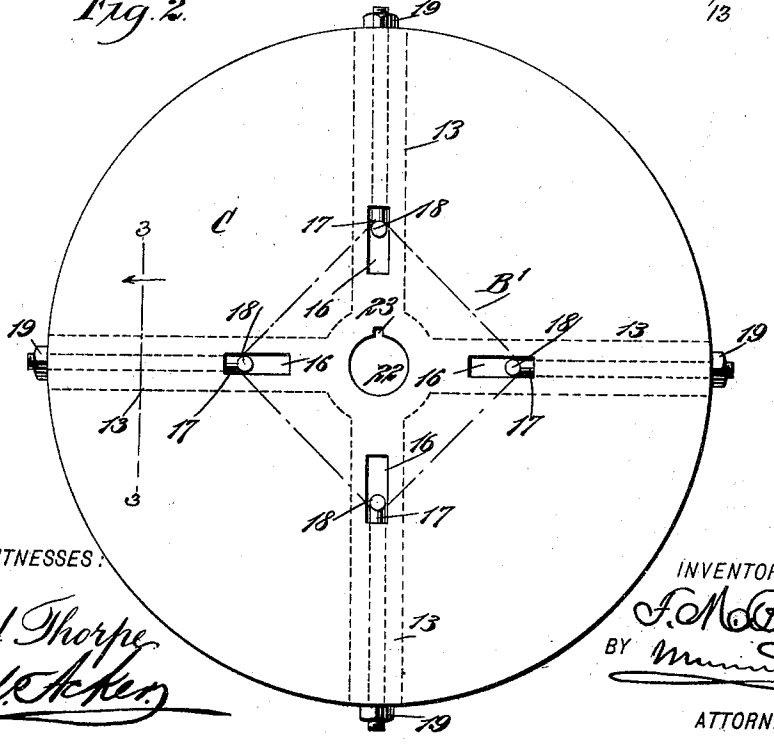


Fig. 3.

Fig. 2.



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FLETCHER M. BIRD, OF WENATCHEE, WASHINGTON.

HANGER FOR GRINDING-STONES.

SPECIFICATION forming part of Letters Patent No. 626,962, dated June 13, 1899.

Application filed December 8, 1898. Serial No. 698,628. (No model.)

To all whom it may concern:

Be it known that I, FLETCHER M. BIRD, of Wenatchee, in the county of Kittitas and State of Washington, have invented a new and Improved Hanger for Grindstones, of which the following is a full, clear, and exact description.

The object of the invention is to provide a simple form of flanges for the hangers for grindstones capable of ready application by any person of ordinary intelligence and that will serve to sustain the stone in a true running position and whereby also the flanges of the hangers may be applied to the stone expeditiously, conveniently, and accurately.

A further object of the invention is to provide a hanger for grindstones that will maintain its position until purposely released and which may be adapted to stones of different diameters.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section through a grindstone and the improved hangers applied to the stone, the spindle being shown in side elevation. Fig. 2 is an inner face view of one of the flanges of the hanger, the eye of the stone being shown in dotted lines to illustrate the position of the hanging devices relative to the said eye; and Fig. 3 is a transverse section on the line 3 3 in Fig. 2.

A represents a spindle which is provided with a collar 10 and with an exteriorly-threaded surface 11 at a suitable distance from the collar, and in the drawings the spindle A is shown as provided with polygonal end surfaces 12 to receive cranks or pulleys.

The grindstone B is of the ordinary character and is provided with the usual rectangular eye B', as shown particularly in Fig. 2. The hanging device for the stone consists of two flanges C and C', which are preferably made of metal and are provided upon their outer surfaces with offsets 13, extending from a central hub 14 to the periphery of the flanges, the offsets being usually four in number and located equidistant apart, as shown in dotted lines in Fig. 2. Each offset 13 is provided with a longitudinal bore 15, that extends from its outer end to a connection with a recess 16, the recesses 16 being made in the inner faces of the flanges, as is particularly illustrated in Fig. 1.

In the bore 15 of each offset is located a hanging-arm 17, preferably in the form of a bar or rod, and each hanging-arm is provided at its inner end with a head 18, that is at a right angle to the body of the bar or arm, and the said heads extend inward from the recesses 16. The body portion of each hanging rod or bar 17 is threaded at its exterior or outer end in order to receive a nut 19, as particularly shown in Fig. 1, and by adjusting the nuts 19 the adjustment of the inner or head portions of said hanging-rods is controlled.

In the application of the improved hanger one of the flanges—the flange C, for example—is slipped upon the spindle A until its hub 14 engages with the collar 10 of the spindle. The stone B is then placed upon the spindle, and the heads 18 of the hanging-arms 17 of the flange C are made to engage with the corner or angular portions of the eye B' of the stone, as shown in Fig. 2. The flange C' is next placed upon the spindle, and the heads 18 of its hanging-arms are made to engage likewise with the angular or corner portions of the eye of the stone, and, finally, a lock-nut 20 is screwed upon the threaded portion of the spindle and the nut is carried to an engagement with the hub of the flange C', forcing the flanges firmly against the side surfaces of the stone. If the stone is not exactly true, it may be readily placed in true position by loosening or by tightening certain of the hanging-arms 17 through the medium of their lock-nuts 19.

It is obvious that under this construction of hanger a grindstone may be accurately hung at less expense and much more conveniently than when the ordinary form of hanger is employed, and, furthermore, that any person of ordinary intelligence may quickly true a stone, which operation is exceedingly difficult when the usual form of hangers is employed.

In order that the hangers may turn with

the spindles A, the spindle is provided with a key or a feather 21, extending from the collar 10 to the threaded surface 11, as shown in Fig. 1, and the hub-section of each flange is provided with a central opening 22, adapted to receive the spindle. Each of said openings is provided with a recess 23, arranged to receive the feather or key 21, as shown in Fig. 2.

It will be understood that the flanges C and C′ are virtually clamping-heads and that the suspension of the stone in true running position is due entirely to its engagement with the hanging-arms 17.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A flange or head for mounting grindstones, the same having radially-adjustable suspending devices for the stone.

2. A flange or clamping-head for a grindstone, provided with adjustable hanging-arms, portions of the said arms being arranged for engagement with the eye of the stone to be hung, as described.

3. In a device for hanging grindstones, a flange or clamping-head provided with radially-disposed hanging-arms, each hanging-arm being provided with a head at its inner end at an angle to its body, the heads extending beyond the inner face of the flange or clamping-head, as described.

4. In hangers for grindstones, a clamping-head or flange provided with radially-disposed bores extending from its periphery, and recesses in the inner face of the head or flange, connecting with the said bores, hanging-arms located in said bores, and capable of end movement therein, each hanging-arm being provided with a head-section that extends inward through a recess in the clamping-head or flange, and lock-nuts located at the outer ends of the said hanging-arms, for the purpose described.

5. In a hanger for grindstones, the combination, with a spindle, of clamping-heads or flanges held stationary upon the said spindle, each clamping-head being provided with radial bores extending from its periphery, each bore meeting a recess produced in the inner face of the flange or head, and hanging-arms the body portions of which have end movement in the said bores, each clamping-arm being provided with an adjusting-nut at its outer end and a head at its inner end, the said heads extending inward from the recesses of the flanges or clamping-heads beyond their inner faces, the disposition of the hanging-arms being the same in each of the flanges or clamping-heads, as and for the purpose specified.

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