

J. SANFASON.
HUB CONSTRUCTION FOR GRINDSTONES.
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922,049.

Patented May 18, 1909.

Fig. 1.

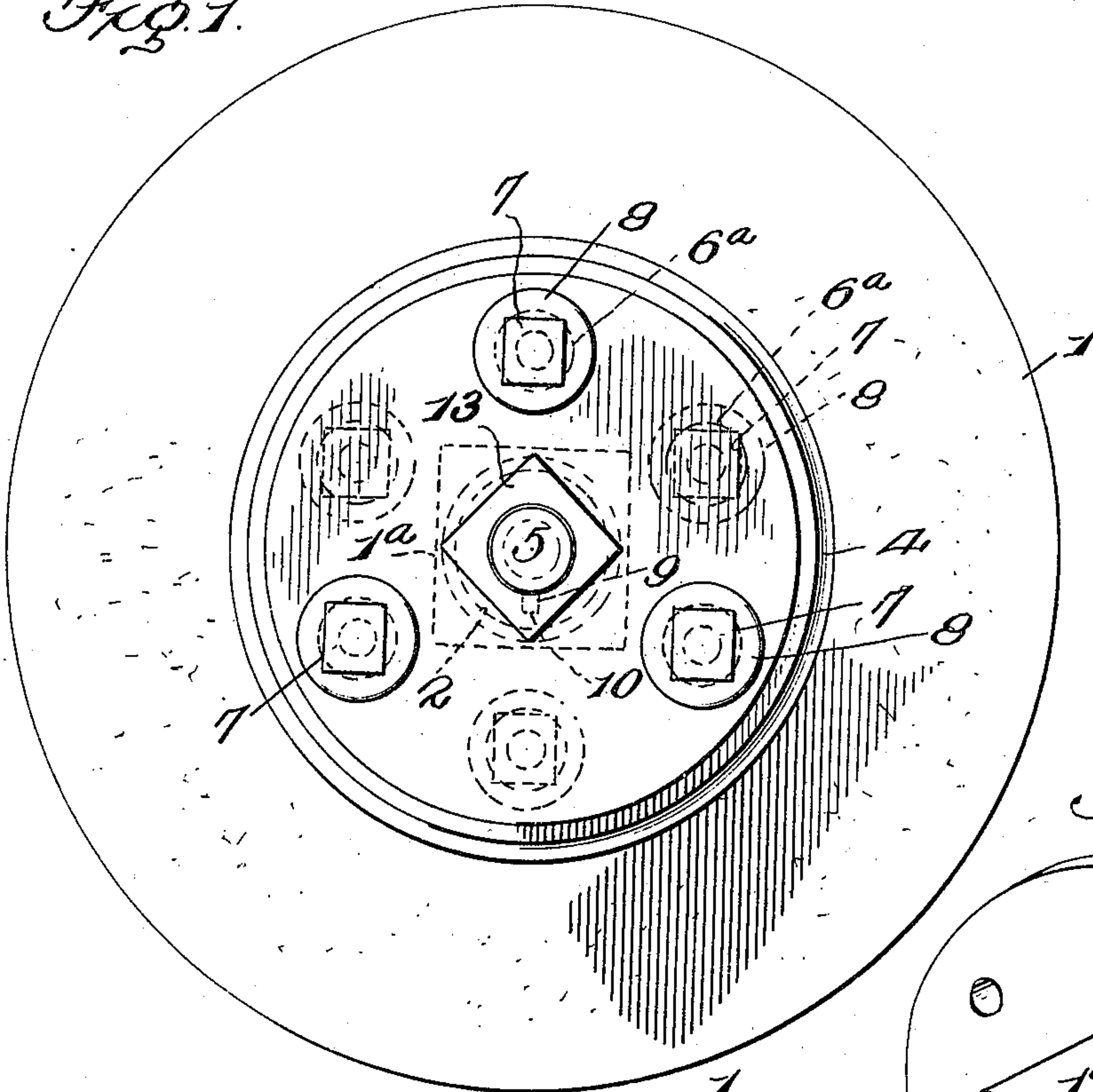


Fig. 2.

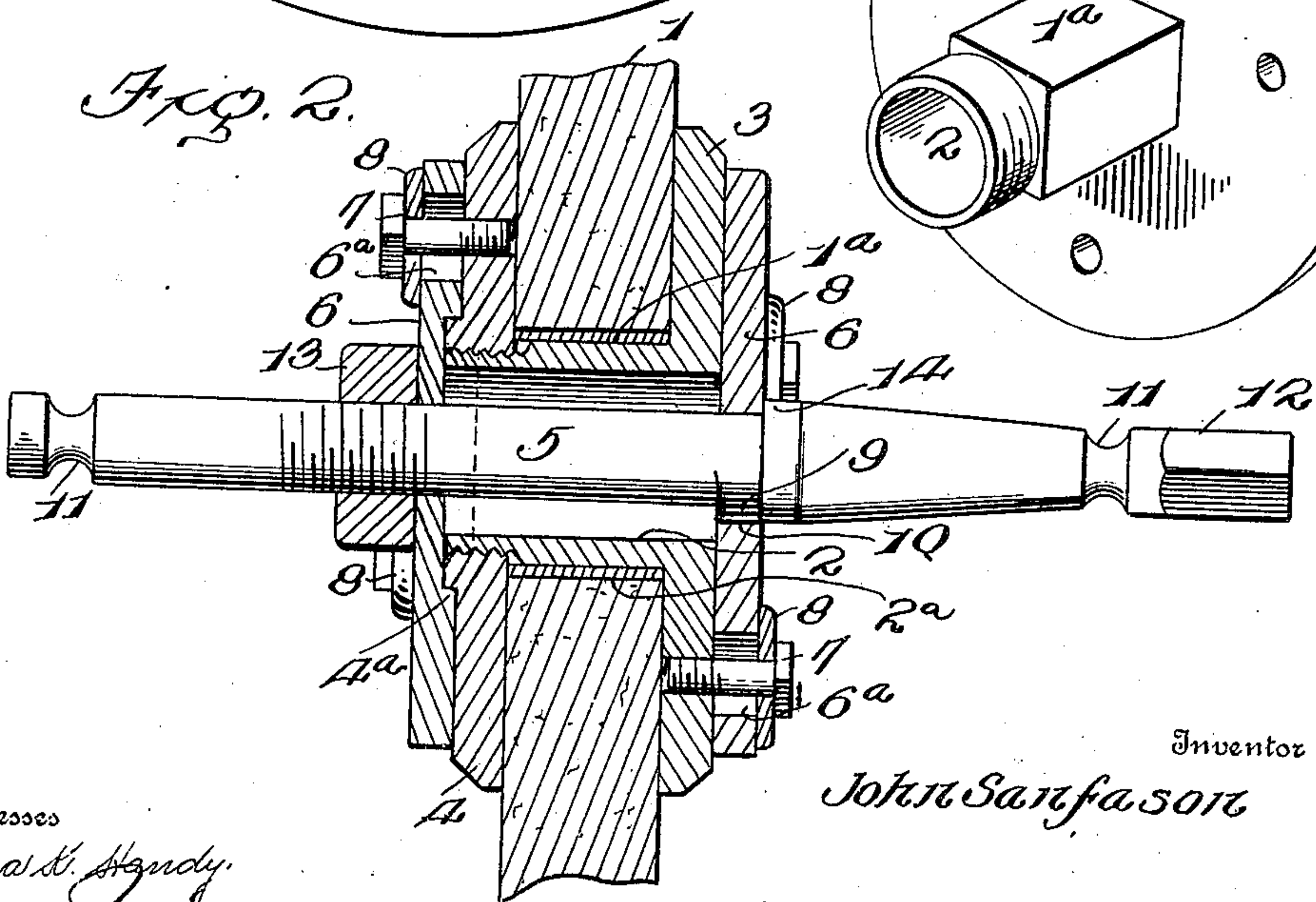
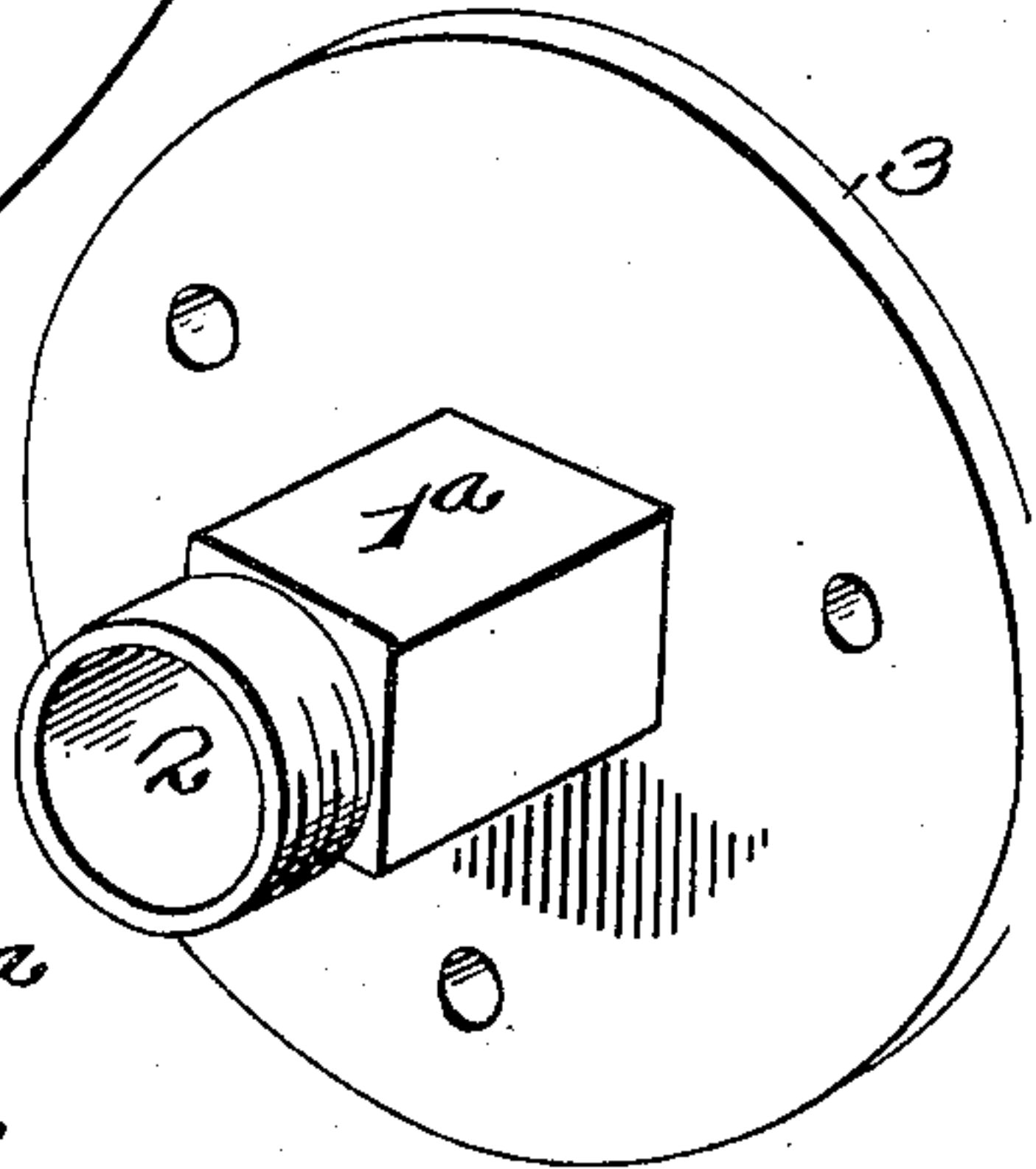


Fig. 3.



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UNITED STATES PATENT OFFICE.

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HUB CONSTRUCTION FOR GRINDSTONES.

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To all whom it may concern:

Be it known that I, JOHN SANFASON, a citizen of the United States, residing at Medford, in the county of Walsh and State of North Dakota, have invented certain new and useful Improvements in Hub Construction for Grindstones, of which the following is a specification.

The object of the present invention is the provision of an improved hub construction for grindstones and the like, which is peculiarly designed to admit of a grindstone being set up so as to run true in a very short space of time.

The invention further contemplates a hub construction of this character which is simple and inexpensive in its construction, can be readily applied to a grindstone or like member and will securely maintain the grindstone in proper position with respect to the shaft upon which it is mounted.

With these and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe, and then point out the novel features thereof in the appended claims.

For a full understanding of the invention and the merits thereof, and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a side elevation of a grindstone provided with a hub constructed in accordance with the invention; Fig. 2 is a transverse sectional view through the same, portions being broken away; and, Fig. 3 is a detail perspective view of the hub proper.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to the drawing, the numeral 1 designates a grindstone which is circular in shape and is provided at its central portion with a square opening 1^a. Extending through this opening is a tubular hub 2, the portion of the hub fitting within the opening also having a square formation so that the hub and grindstone turn in unison. One end of the hub is formed with an integral flange 3 fitting against one end of the grindstone, while the opposite end is reduced and threaded and receives a removable flange 4 fitting

against the other side of the grindstone. The outer face of this removable flange is formed with an angular enlargement 4^a designed to be engaged by a wrench or similar tool when screwing the flange into position or unscrewing it therefrom.

Extending through the tubular hub 2 is a shaft 5, the diameter of the shaft being considerably less than the internal diameter of the hub to admit of the shaft being moved laterally therein. This shaft also passes through openings in bearing plates 6 which are adjustably secured to the outer faces of the hub flanges 3 and 4 respectively and serve to hold the shaft in proper position within the hub. These bearing plates are formed with openings 6^a, and passing through these openings are screws 7, the ends of which are threaded in the hub flanges, while the heads are engaged by washers 8 which extend over the openings 6^a and engage the bearing plates. It will thus be obvious that when the screws or fastening members 7 are loosened, the bearing plates may be shifted upon the hub flanges, and the shaft 5 thereby moved within the hub until it is accurately centered with respect to the grindstone and the latter runs true. By tightening the screws 7, the washers 8 may then be drawn against the bearing plates so as to frictionally engage the same and hold them securely in position. It will also be noted that the shaft is formed upon one side with an integral key 9 engaging a notch 10 in one of the bearing plates, so that the bearing plate, and consequently the hub, is locked with the shaft and rotates therewith. Opposite end portions of the shaft are provided with the annular grooves 11 designed to be received within the usual bearings, and one end of the shaft has an angular formation, as indicated at 12, and is designed to receive a crank handle for turning the grindstone. Under some conditions it may be found desirable to thread a nut 13 upon one end of the shaft, the said nut engaging the bearing plate upon one side of the grindstone, while the bearing plate upon the opposite side of the grindstone abuts against a shoulder 14 upon the shaft. In this manner a rigid construction is obtained, and all of the parts are held securely in position after being once adjusted.

In the preferred embodiment of the invention, the opening 1^a in the grindstone is

slightly larger than the hub 2 and wood wedges 2^a are driven between the two members to lock them rigidly together.

Having thus described the invention, what I claim is:

1. In a device of the character described, the combination of a tubular hub, a shaft passing loosely through the tubular hub and having a diameter smaller than the diameter of the opening of the hub so as to be movable laterally therein, a pair of bearing plates engaging the shaft and applied to opposite ends of the hub, the said bearing plates having openings formed therein, fastening members passing loosely through the openings into the hub and of such a size as to be movable laterally within the openings, and washers carried by the fastening members and extending over the openings in the bearing plates to engage the latter and hold them adjustably against the hub.

2. In a device of the character described, the combination of a hub formed with an integral flange and provided with a remov-

able flange adapted to cooperate with the integral flange to engage a grindstone, a shaft passing loosely through the hub and having a diameter smaller than the diameter of the opening therethrough so as to be movable laterally therein, bearing plates fitted against the hub flanges and engaging the shaft, the said bearing plates being formed with openings, fastening members passing through the openings of the bearing plates and engaging the hub flanges, the said fastening members being of such a size as to be movable laterally within the openings, and washers carried by the fastening members and extending over the openings in the bearing plates to engage the latter and hold them adjustably against the flanges.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN SANFASON. [L. s.]

Witnesses:

T. F. WHITTEN,
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