

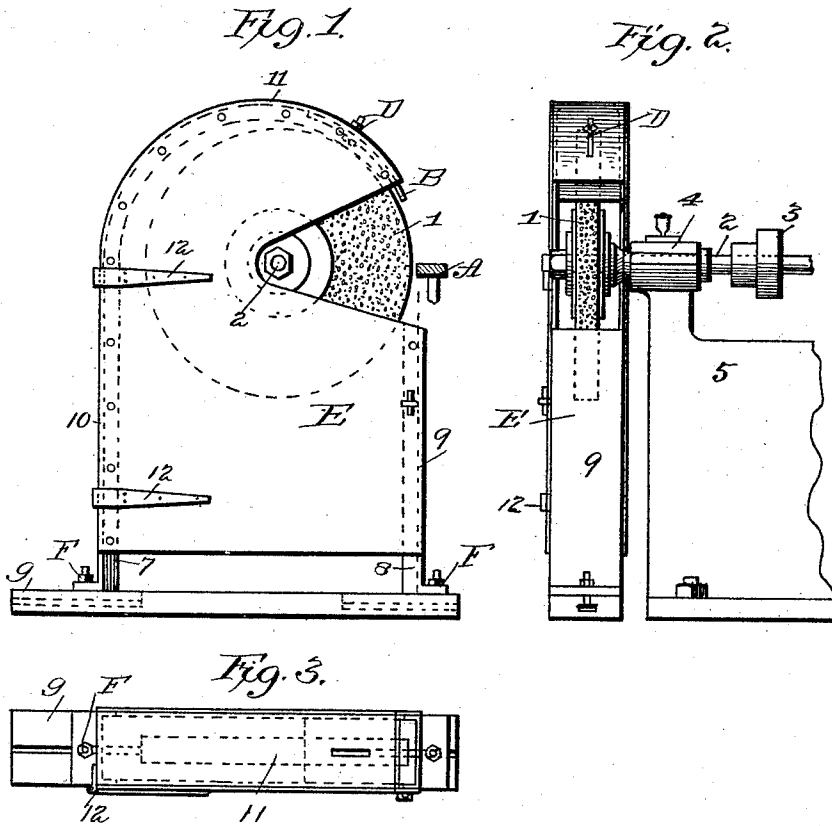
(No Model.)

G. W. WILSON.

HOOD, CASING, OR COVERING FOR EMERY WHEELS OR GRINDSTONES.

No. 469,310.

Patented Feb. 23, 1892.



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UNITED STATES PATENT OFFICE.

GEORGE W. WILSON, OF SHARON, PENNSYLVANIA.

HOOD, CASING, OR COVERING FOR EMERY-WHEELS OR GRINDSTONES.

SPECIFICATION forming part of Letters Patent No. 469,310, dated February 23, 1892.

Application filed August 8, 1891. Serial No. 402,123. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. WILSON, a citizen of the United States of America, residing at Sharon, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Hoods, Casings, or Coverings for Emery-Wheels or Grindstones, of which the following is a specification.

In the use of grinding or emery wheels which are revolved at a high rate of speed serious accidents have often occurred by reason of the breaking or bursting of the stone, and the workman is often subjected to discomfort from the flying particles in the ordinary use of the stone.

It is the object of my invention to provide a casing comprising a hood having means which will completely inclose the stone excepting at the point of work; and the invention consists in the details of construction and arrangement of parts hereinafter set forth.

In the accompanying drawings, Figure 1 is a side elevation of the stone inclosed within the casing and hood. Fig. 2 is an end elevation of the same. Fig. 3 is a plan view.

In the drawings the revolving wheel 1 is of any ordinary and well-known construction and is mounted upon a shaft 2, driven in any ordinary manner, as from pulleys 3. The shaft is mounted in bearings, one of which is shown at 4, carried by the main supporting-frame 5. The shaft projects beyond this bearing, and it is upon this projecting end that the grinding-wheel is secured. The inclosing casing is entirely independent of the shaft and plays no part in supporting the same; but it is capable of being adjusted across the line of the shaft, the purpose being to keep the hood at the point of work close to the periphery of the wheel. The casing is shown at E and it is composed of sheets of boiler-iron bolted to standards 7 and 8. The standard 7 curves over the periphery of the wheel and supports the hood of the casing, while the standard 8 projects upwardly to a point slightly below the horizontal plane of the shaft. The casing comprises the two sides, the front 9, the back 10, and the curved hood 11. The opening in the casing is of angular form and is of sufficient size to suit

the largest-sized work to be operated upon. It extends from the front of the casing and terminates at the apex of the angle beyond the shaft of the grinding-wheel. The work-support is shown at A, and, as before stated, the arrangement is such that the casing can be adjusted as the grinding-wheel wears away in order to keep the casing at the opening close to the periphery of the wheel. In order to permit this the standards 7 and 8 are provided with feet through which the bolts F pass into slotted base G, and by loosening these bolts the casing can be adjusted toward or from the work-support, so that the edges of the opening will be in proper relation to the periphery of the wheel, and this adjustment is freely permitted by reason of the opening extending about the shaft. In order that the size of the opening may be regulated for different sizes of work, I provide an adjustable shutter or slide B, which is arranged within the covered hood above the wheel and is formed on a curve corresponding thereto, it being held adjustably in any desired position by the bolt D. One side of the casing is hung upon hinges 12, so that access may be had to the stone when desired or the old stone may be replaced by a new one.

From the foregoing description it will be seen that the workman is fully protected in case of the explosion of the stone, and at the same time he can perform the work as accurately and expeditiously as though the stone were not inclosed.

I claim as my invention—

1. In combination, the casing, the shaft and wheel supported independent of the casing, said casing inclosing the wheel and having an opening extending from the periphery inwardly around the shaft to permit adjustment of the casing independent of the shaft and across the line thereof, and means for holding the casing adjustably, substantially as described.

2. In combination, the grinding-wheel and its shaft suitably supported, the inclosing casing comprising the sides, the front and rear, and the curved hood, the standard 7, extending upwardly along the rear side and curved over the wheel, the standard 8, extending upwardly along the front to a point below the plane of the wheel-shaft and an opening

in the casing between the ends of the standards, said opening extending inwardly around the wheel-shaft, said casing being adjustable across the line of the shaft, and means for
 5 holding it in any desired position, substantially as described.

3. In combination, the wheel and its shaft, with supporting means therefor, and the work-support, the inclosing casing having an opening adjacent thereto, said casing having one
 10 of its sides hinged, substantially as described.

4. In combination, the casing, the shaft, said parts being independently supported, the said

casing inclosing the wheel and having an opening extending from its periphery entirely
 15 around the shaft to permit independent adjustment of the casing without disturbing the shaft, and the hood adjustably held to the adjustable casing, and means for holding the casing in any adjusted position. 20

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

GEORGE W. WILSON.

Witnesses:

A. W. WILLIAMS,
 W. H. BIDAMAN.