W. STONE.

GRINDING WHEEL GUARD.

APPLICATION FILED DEC. 11, 1911.

1,042,618.

Patented Oct. 29, 1912.

Fig. 2.

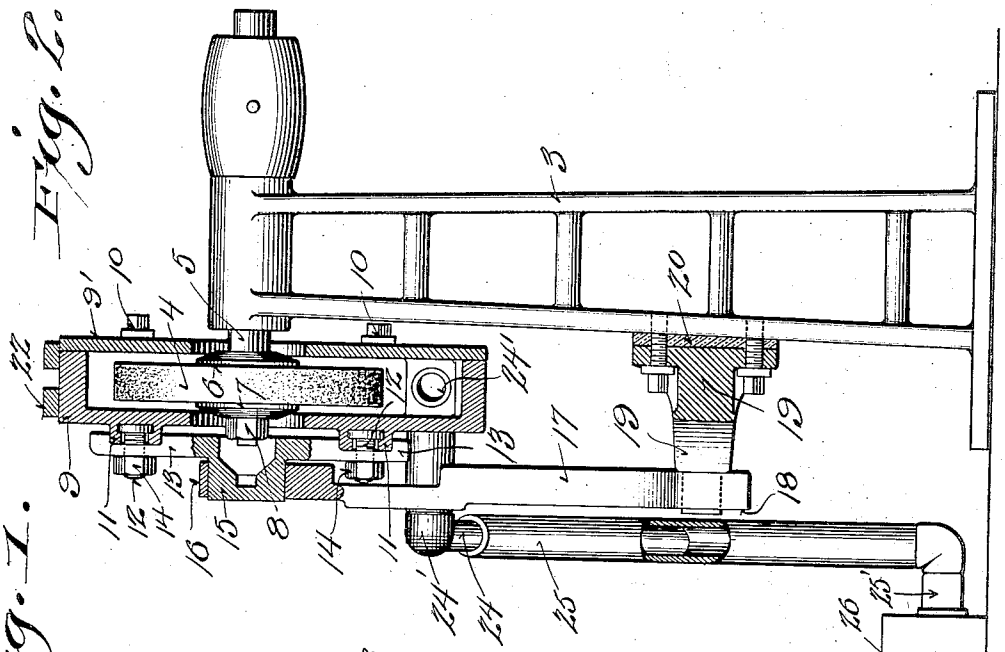
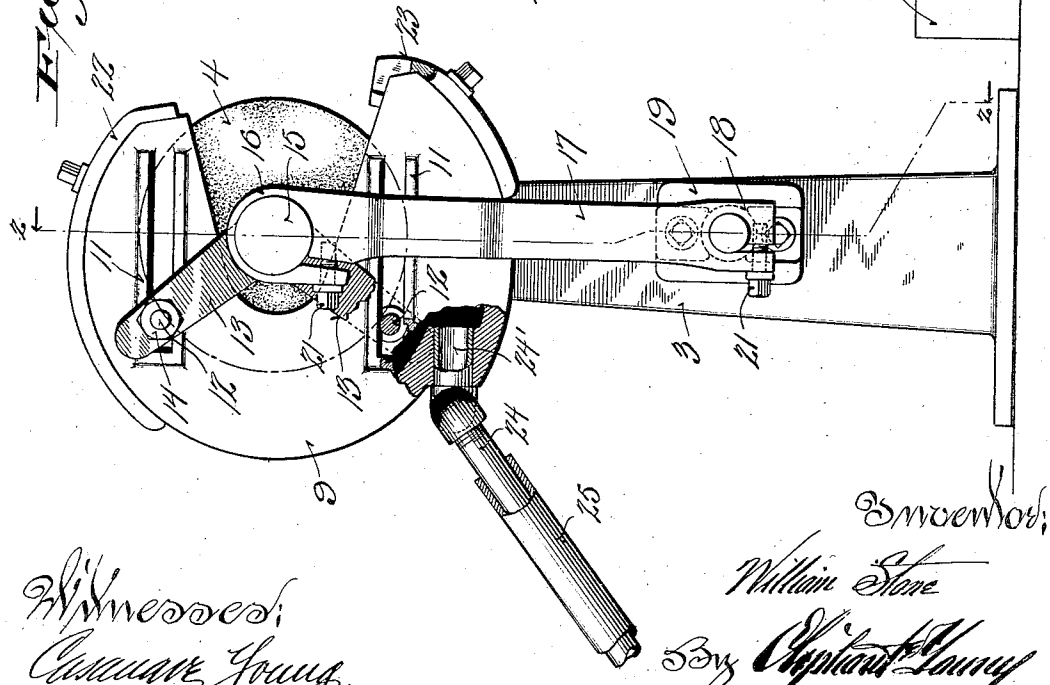


Fig. 1.



Witnesses:
Clarence Young.
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# UNITED STATES PATENT OFFICE.

WILLIAM STONE, OF MILWAUKEE, WISCONSIN.

## GRINDING-WHEEL GUARD.

1,042,618. Specification of Letters Patent. Patented Oct. 29, 1912.

Application filed December 11, 1911. Serial No. 665,100.

*To all whom it may concern:*

Be it known that I, WILLIAM STONE, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Grinding-Wheel Guards; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention consists in what is herein particularly set forth with reference to the accompanying drawings and pointed out in the claims of this specification, its object being to provide for ready attachment to grinding-machines of grinding-wheel guards similar to the one disclosed in Letters Patent No. 953,496, granted to me March 29, 1910, and also to provide for connection of each guard with a dust-exhaust in such a manner as not to interfere with rotary adjustment of said guard.

Figure 1 of the drawings represents a side elevation of a grinding-wheel guard in accordance with my invention partly in section, its application to a grinding-machine and its connection with a dust-exhaust so as not to interfere with its rotary adjustment being illustrated. Fig. 2 represents a sectional view of the guard and illustrates supporting means for the same partly in section, this view being indicated by line 2—2 in Fig. 1.

Referring by numerals to the drawings, 3 indicates the stand of a grinding-machine, and 4 the grinding-wheel of the machine held rigid on a driven-arbor 5 between clamp-collars thereon. The inner clamping-collar 6 abuts a shoulder of the arbor and the outer clamping-collar 7 is opposed by a nut 8 run on the arbor.

Incasing the grinding wheel and free of the arbor, is a hood 9, having a removable side 9′ secured in place by screws 10, the front of said hood being open to said wheel. The outer side of the hood is shown provided with a pair of parallel guides 11 for the heads of bolts 12, these guides being substituted for the bolt-slots shown in the Letters Patent aforesaid, that also shows the fixed and removable sides of the hood reversed to the showing herewith. The bolts extend through arms 13 of a spider, and clamp-nuts 14 are run on the outer ends of said bolts against the spider-arms, these arms being preferably recessed to engage the bolt-head guides 11 aforesaid. The hub 15 of the spider is recessed to clear the nut 8 on the arbor 5, and it may be bored to afford clearance for the said arbor when the same is of greater length outward from the grinding-wheel than is herein shown. The outwardly extending portion of the spider-hub engages the split-head 16 of a post 17 having a split-foot 18 engaging a stem of a bracket 19 bolted to the machine stand, a spacing block 20 being interposed between said bracket and stand. The bracket may be of any suitable form attachable to any convenient portion of the machine stand, or the post may be secured to any convenient support and engaged with the spider-hub. By means of screws 21, the head and foot of the post 17 are made to grip the bracket and spider-hub respectively, and said post in connection with said bracket constitutes a support for said spider-hub and the wheel-guard hood adjustably secured thereto.

The guard-hood is provided with a longitudinally slotted slide 22 held in adjusted position by a set-screw to regulate the front opening in said hood, as in the Letters Patent aforesaid. A work-rest 23 is also shown bolted to the guard-hood. The guard-hood is adjustable in connection with the spider to compensate for wear of the grinding-wheel similar to what is specified in my previous patent, and said hood is provided with an exhaust-aperture in which is fitted a branch 24′ of a pipe 24 in telescopic engagement with another pipe 25 having a branch 25′ thereof in pivotal engagement with a wind trunk 26 through which to exhaust dust from said hood. The telescopic connection of the pipe 24 with the pipe 25 in pivotal connection with the wind-trunk 26 permits rotary adjustment of the guard-hood to present the opening therein to the grinding-wheel at various points of the periphery of said wheel.

I claim:

1. The combination of a support, a post having a split foot engaging the support, a spider having the hub thereof engaging a split head of the post, a grinding wheel guard-hood attached to the spider, and means for clamping said post on said support and spider-hub.

2. The combination of a support, a post having a split-foot engaging the support, a spider having the hub thereof engaging a

split head of the post, a grinding-wheel guard-hood adjustably secured to the spider, and means for clamping said post on said support and spider-hub.

3. The combination of a grinding-wheel guard-hood provided with side guides, bolts having their heads engaging said guides, a spider having arms thereof engaged by the bolts, nuts on said bolts in opposition to the spider-arms, a post with which a hub of the spider is engaged, and a support to which the post is secured.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee in the county of Milwaukee and State of Wisconsin in the presence of two witnesses.

WILLIAM STONE.

Witnesses:
CHAS. L. BORST,
GEO. M. RUSSELL.