Jan. 1, 1952 J. W. VOLL 2,580,979

QUICK-SET WHEEL GUARD

Filed March 23, 1950 2 SHEETS—SHEET 1

FIG. 1.

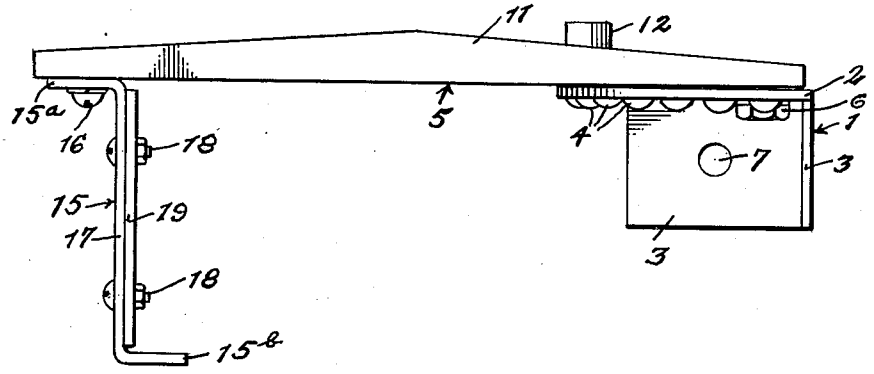

FIG. 2.

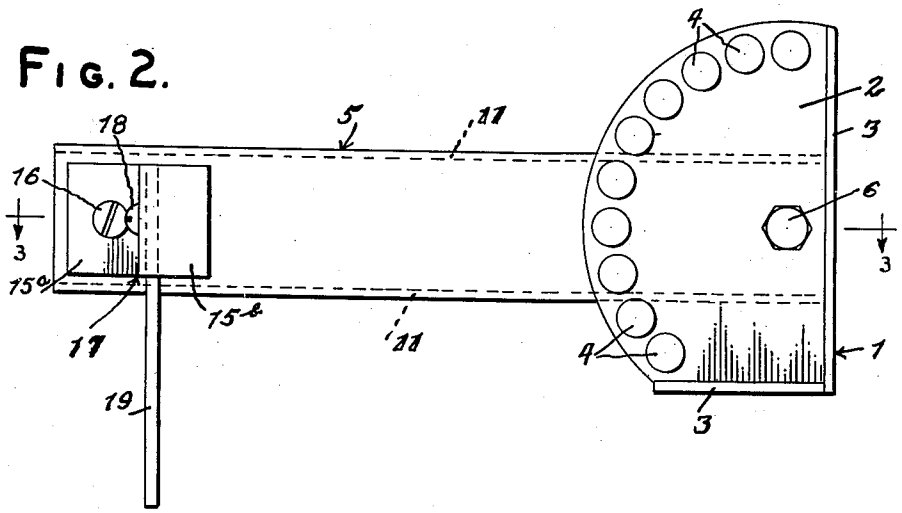

FIG. 3.

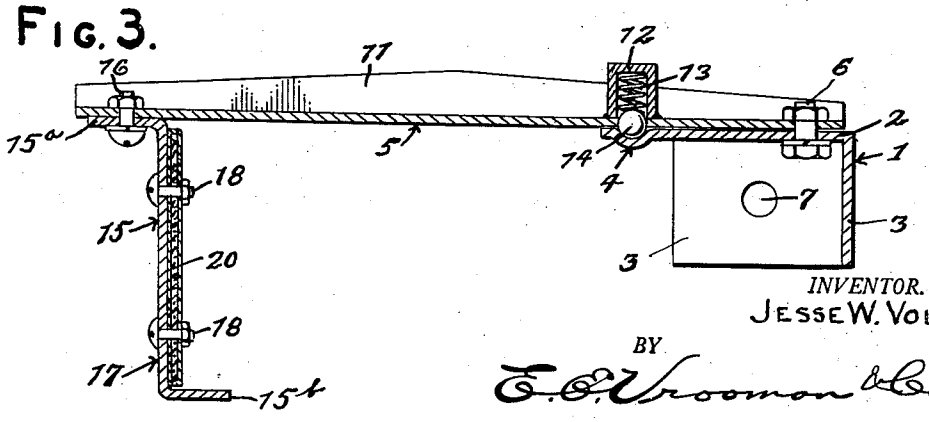

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FIG. 6.

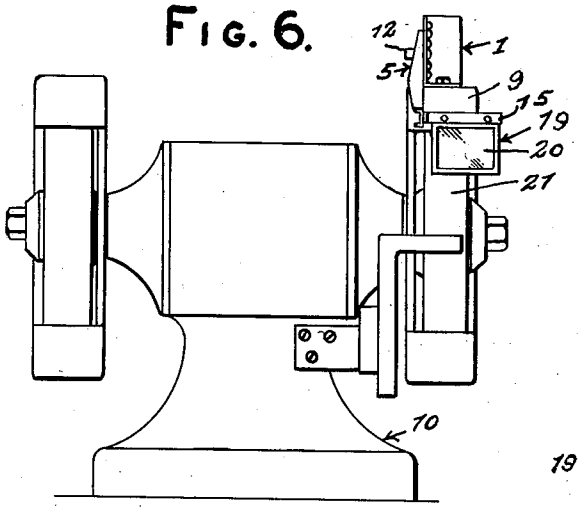


FIG. 8.

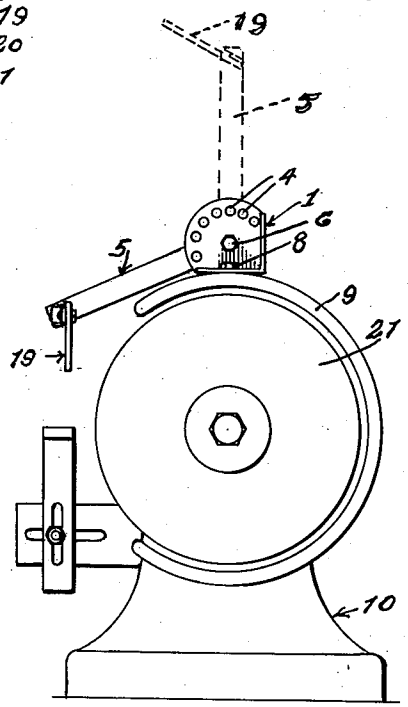


FIG. 7.

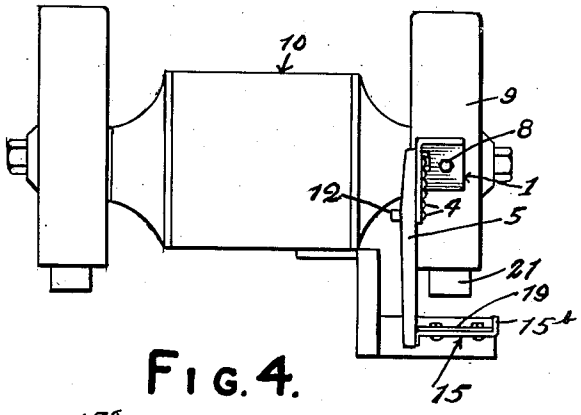


FIG. 4.

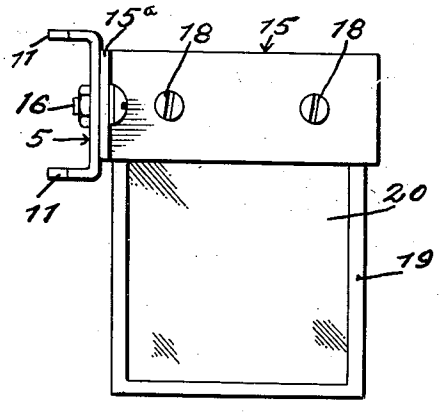
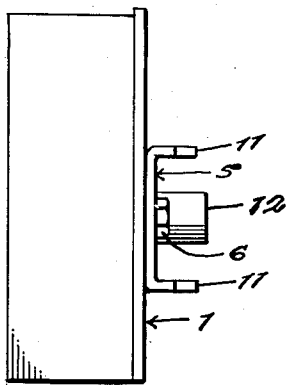


FIG. 5.



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QUICK-SET WHEEL GUARD

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Application March 23, 1950, Serial No. 151,381

2 Claims. (Cl. 51—272)

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This invention relates to a quick set wheel guard.

An object of this invention is the provision of an efficient safety guard for protecting an operator or bystanders against flying particles cast from an emery wheel, or any other type of machinery, tools or fixtures, which the safety guard may be adapted to.

Another object is the provision of a safety guard which is easy to adjust for placing the safety glass in the proper location for different types of work without the means of additional tools, equipment, or the lost time usually taken to adjust said equipment.

A still further object is the production of a device that is simple in construction, low in cost, and very efficient in operation.

With the foregoing and other objects in view, this invention comprises certain novel constructions, combinations, and arrangements of parts as will be hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

In the drawings:

Figure 1 is a top plan view of a device constructed in accordance with this invention.

Figure 2 is a view in side elevation.

Figure 3 is a sectional view, taken on line 3—3, Fig. 2, and looking in the direction of the arrows.

Figure 4 is a view in elevation of the outer end of the device shown in Fig. 2.

Figure 5 is a view in elevation of the rear end of Fig. 1.

Figure 6 is a front view in elevation of a machine to which the device is applied, while

Figure 7 is a top plan view.

Figure 8 is a view in side elevation, showing the device applied to the machine.

Referring to the drawings, in which the preferred embodiment of this invention is illustrated, 1 designates the primary bracket which comprises a flat base 2 and flanged edges 3, 3. Projecting outwardly from said flat base 2 are a series of cups 4; these cups are arranged in a semicircle for the efficient operation of the device.

A swinging arm 5 is mounted on the base 2, and is secured by means of a bolt 6. The flanged edge 3 of the primary bracket is provided with an aperture 7, which is adapted to receive a bolt 8 when it is desired to attach the device to the guard 9 of the machine 10.

The swinging arm 5 is provided with parallel flanges 11, which strengthen the arm. A spring holding casing 12, Fig. 3, is secured to the arm

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5 between flanges 11, and a coil spring 13 is positioned in said casing 12. A ball 14 is under spring 13. The ball 14 is adapted to rest in any one of the cups 4 for securing the arm 5 in an adjusted position.

On the outer end of arm 5 is secured a shield bracket 15; this bracket 15 is held securely in place by means of a bolt 16. The shield bracket 15 comprises an angle body 17, which is fastened by bolts 18 to the top of frame 19. Within frame 19 is mounted a pane of glass 20. This glass 20 is strong and durable, and cannot be broken by particles hitting against same.

In operation, the operator can swing arm 5 to any desired position, so as to place the shield bracket 15 and its glass guard in the best position for protection against flying particles from the emery wheel 21. The device will frictionally be held in the desired position by the action of the ball 14 seating in a cup. In other words, the locking of the arm 5 in any adjusted position is automatic, with no tool or other equipment required for the adjustment and the positive securing of the device in its adjusted position.

The angle bracket 15 has the outwardly extending portion 15*a* for for the bolt 16 to extend through, while the inwardly extending portion 15*b* may be used by the operator as a grip, during the adjustment of the device.

While I have described the preferred embodiment of the invention and illustrated the same in the accompanying drawings, certain minor changes or alterations may appear to one skilled in the art to which this invention relates during the extensive manufacture of the same, and I, therefore, reserve the right to make such changes or alterations as shall fairly fall within the scope of the appended claims.

What I claim is:

1. In a device of the class described, the combination of a primary bracket, said bracket including a base provided with a plurality of outwardly extending cups, a swinging arm attached to said bracket, said arm provided with a spring-holding casing, a coil spring in said casing, a ball under said spring and being adapted to seat in any one of said cups, and said arm provided with shield-carrying means.

2. In a device of the class described, the combination of a primary bracket provided with a flange, said flange provided with an aperture, said primary bracket provided with a semicircular row of outwardly extending cups, an arm pivotally mounted on said bracket to one side of said cups, a spring holding casing on said arm and registering with said cups, a coil spring in

said spring holding casing, a ball under said spring and being adapted to seat in any one of said cups, and a shield bracket provided with a glass fixedly secured to the outer end of said arm, substantially as shown and described.

JESSE WILLIAM VOLL.

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