W. H. SMITH.

WHEEL GUARD.

APPLICATION FILED APR. 7, 1919.

1,329,935. Patented Feb. 3, 1920.

Fig. 1.

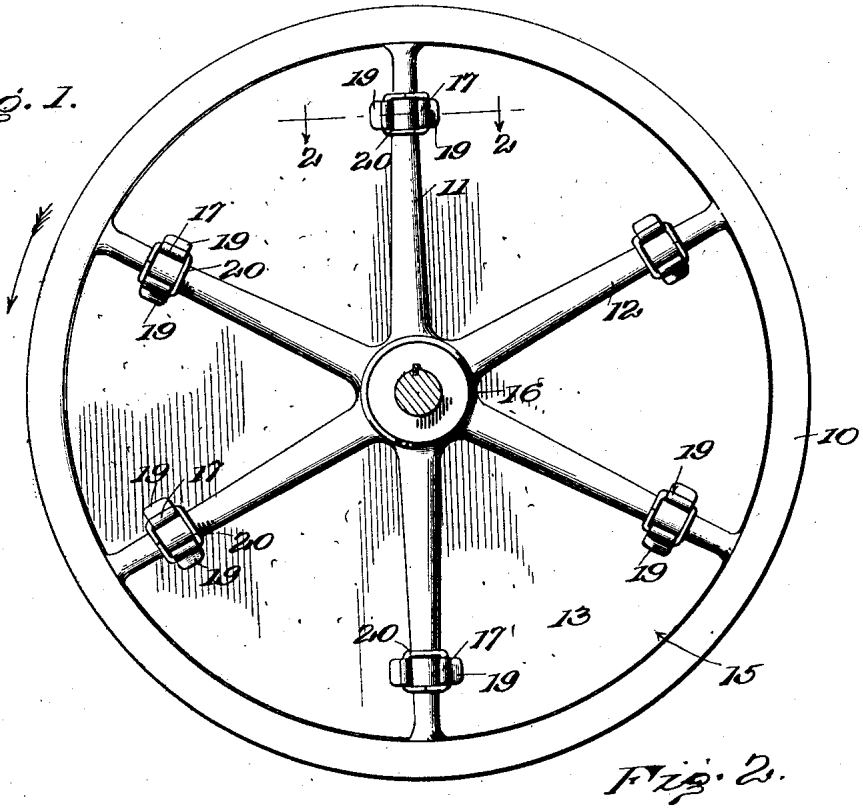


Fig. 2.

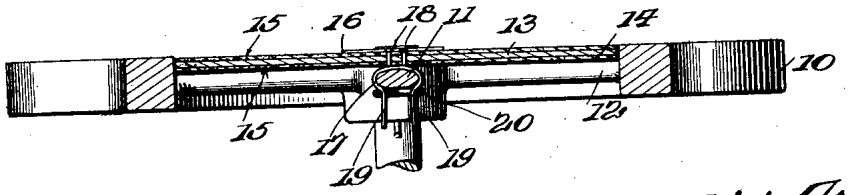


Fig. 3.

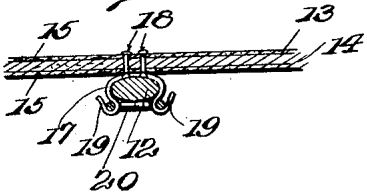
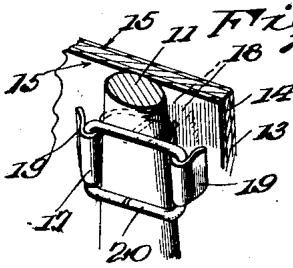


Fig. 4.



Inventor.
Walter H. Smith
by
Attorney.

UNITED STATES PATENT OFFICE.

WALTER H. SMITH, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO MILLER SAW-TRIMMER COMPANY, A CORPORATION OF PENNSYLVANIA.

WHEEL-GUARD.

1,329,935. Specification of Letters Patent. Patented Feb. 3, 1920.

Application filed April 7, 1919. Serial No. 287,935.

To all whom it may concern:

Be it known that I, WALTER H. SMITH, subject of the King of Great Britain, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Wheel-Guards, of which the following is a specification.

This invention relates to a wheel guard, and comprehends a structure which may be placed against the spokes of a fly wheel or the like to cover the space within the rim of the wheel and readily and conveniently secured in such position.

It has been heretofore proposed to apply guards of this character to spoke wheels to prevent the possibility of accidents incident to the rapidly moving spokes, but such guards have been secured in position ordinarily by means passing through the spokes, with the resultant weakening of the wheels, and have usually been constructed of heavy material, such as metal plate.

This invention is directed particularly therefore to the provision of an improved guard having simple and efficient means by which it may be readily and easily secured to or removed from an operative position relative to the wheel.

In the drawings:—

Figure 1 is a view in elevation from the inner side showing the improved guard in position.

Fig. 2 is a section on line 2—2 of Fig. 1, with the parts in position immediately preceding the completing of the secure operation.

Fig. 3 is a similar view with parts in guard securing positions.

Fig. 4 is a detail perspective.

In the drawings, a fly wheel is indicated at 10, having the usual spokes 11 and 12. A guard 13 is provided, and of a diameter to fit more or less closely within the rim of the wheel, so that it may bear directly against the spokes. The guard is of three ply construction, the center portion 14 being of wood, and the outer plys 15, being of cardboard, fiber, or other appropriate material. The guard is formed at the center with an opening 16 to permit the guard to be passed over the hub of the wheel.

The fastening means comprises strips 17, of bendable metal, riveted at their intermediate points, as at 18, to the guard, to leave free ends 19 of such strips of appropriate length. There is one such strip for each spoke, by preference, though obviously the invention contemplates a less number if desired.

In the application of the guard, the same is positioned as described in contact with the spokes, and the free ends 19 of the strips bent outwardly from the guard so that a spoke is embraced by such free ends of each strip, as clearly illustrated in Fig. 2. A securing member, in the form of a rectangular ring like member 20, is then passed over the free ends of the strips and into contact with the spokes, whereupon the ends of the strips beyond such members are bent outwardly and rearwardly, relative to the member, as shown in Fig. 3. The guard is thus effectively secured to the spokes, and will efficiently prevent the danger incident to contact with the spokes of the rapidly revolving wheel.

In removing the guard it is only necessary to bend outwardly the free ends of the strips, and remove the members 20. The particular construction of the securing means provides for convenient storage or transportation of the guards, as under such conditions the strips will lie flat against the inner surface of the guard and present no appreciable addition to the thickness thereof.

There is considerable advantage in the construction of the guard portion of wood faced at each side with card-board, fiber or the like. Wood alone would be liable to split and fly apart under the action of centrifugal force. By the addition of the cardboard facings, this possibility is eliminated, and a guard portion is provided which is light in weight, cheap, strong, safe, and silent in use.

What I claim is:—

1. The combination with a fly wheel having spokes, of a guard adapted to be positioned against the spokes, clips carried by the guard to embrace the spokes said clips having bendable ends and a holding member to coöperate with the said clips, the bendable ends being bent around said holding means.

2. The combination with a fly wheel having spokes, of a guard adapted to be positioned against the spokes, clips carried by the guard to project on opposite sides of

the spokes said clips having bendable ends and a member adapted to bear against the spokes on the side opposite the guard and to be interlocked with said clips by bending the ends of the latter around the member.

3. A wheel guard comprising a guard member, strips secured intermediate their ends to the member and adapted to be bent outwardly from the guard to receive the spokes between them, and a holding member interlocked with the ends of said strips beyond the spokes.

4. The combination with a fly wheel having spokes, of a guard of three-ply material adapted to lie against the spokes and having U-shape members secured thereto to receive the spokes, and a ring-like lock adapted to embrace the free ends of the members beyond the spokes, the ends of said members being bent around the lock to secure the guard in position.

5. The combination with a fly wheel having spokes of a guard comprising a wooden center having fibrous outer portions united therewith, U-shaped members secured to said guard to receive the spokes and a ring-like lock adapted to embrace the free ends of the members beyond the spokes, the ends of said members being bent around the lock to secure the guard in position.

6. A wheel guard comprising a guard member and means for securing the guard member to the spokes of a wheel including two elements one of said elements having bendable ends to be bent around the other element to form a lock.

In testimony whereof I affix my signature.

WALTER H. SMITH.