No. 858,772. PATENTED JULY 2, 1907.

M. F. WILLIAMS.

HAMMER FOR CRUSHERS AND PULVERIZERS.

APPLICATION FILED SEPT. 18, 1906.

Fig. 1.

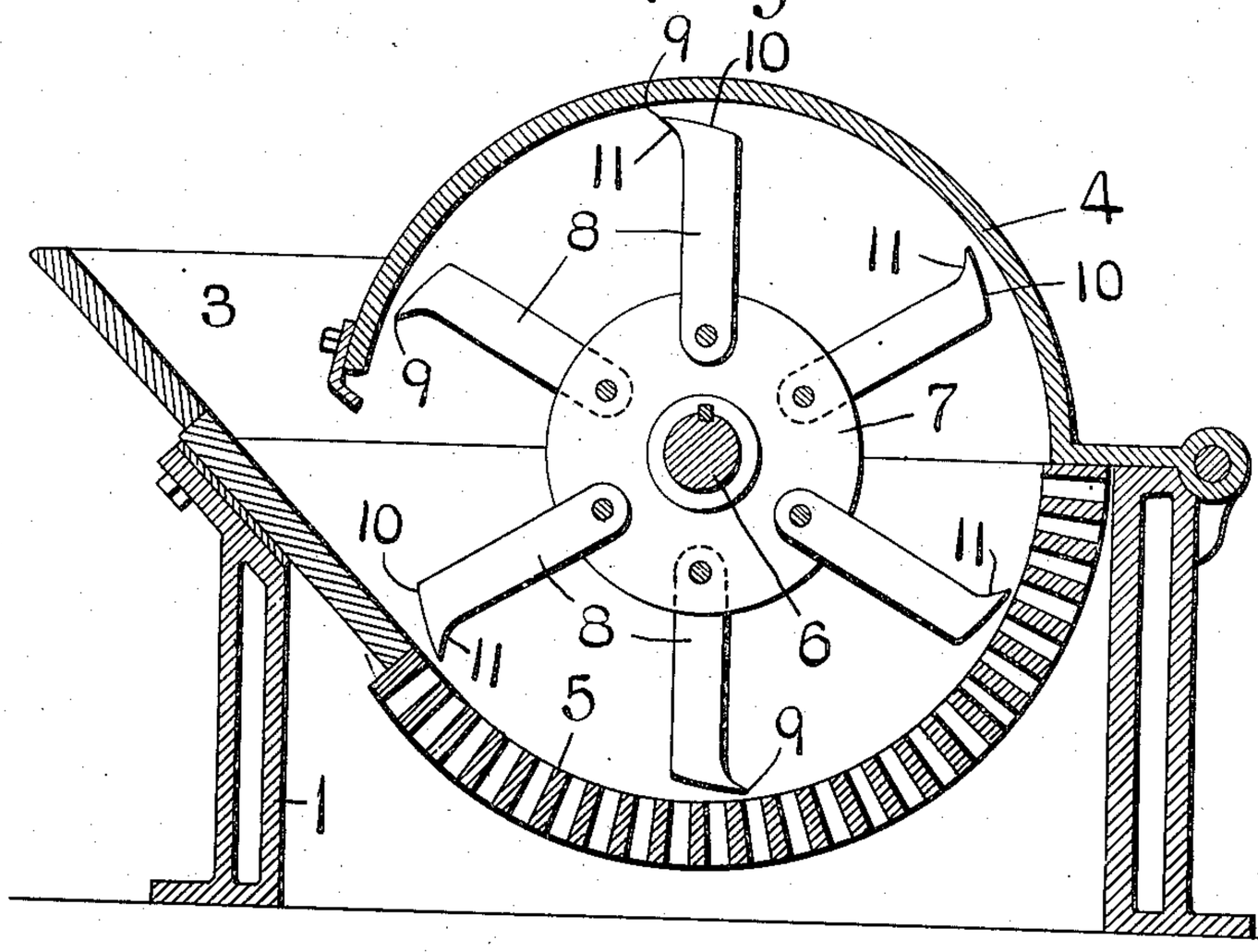
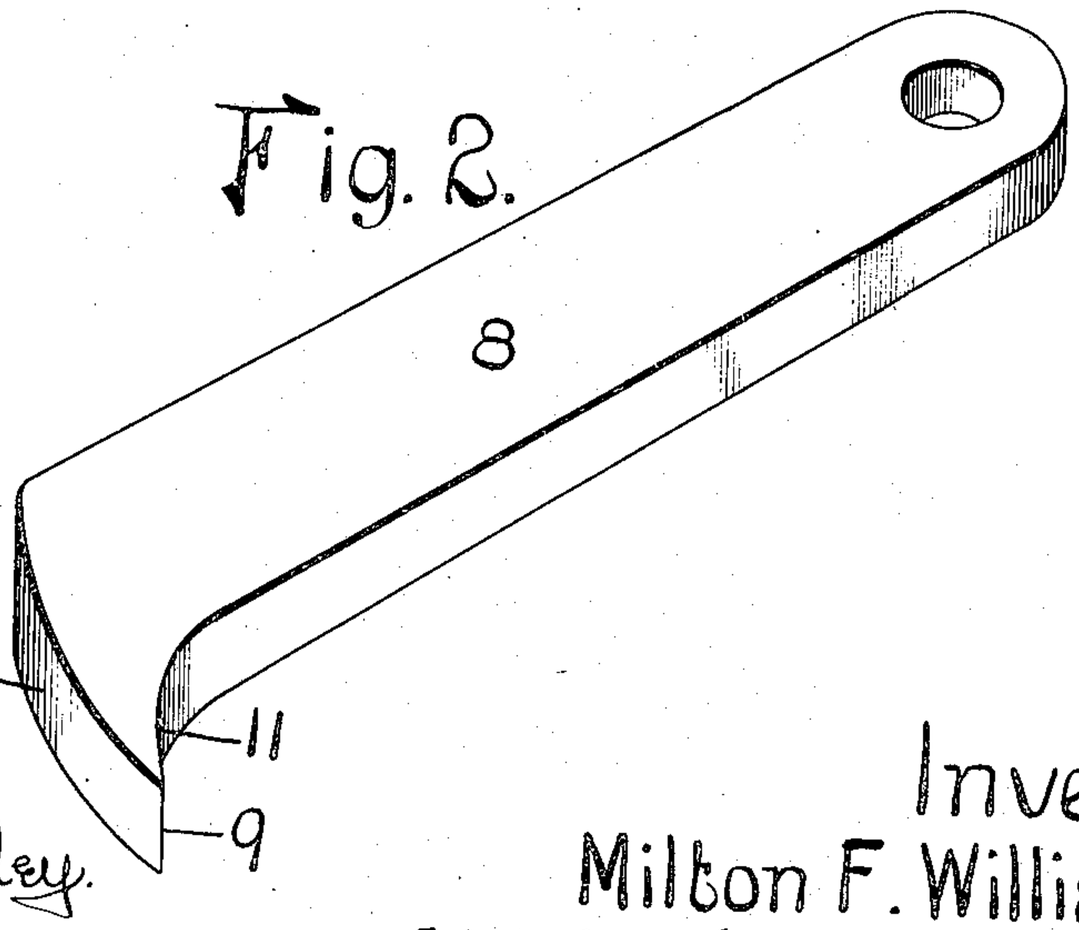


Fig. 2.



Witnesses
A. J. McCauley.
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Inventor:
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UNITED STATES PATENT OFFICE.

MILTON F. WILLIAMS, OF ST. LOUIS, MISSOURI, ASSIGNOR TO WILLIAMS PATENT CRUSHER & PULVERIZER COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

HAMMER FOR CRUSHERS AND PULVERIZERS.

No. 858,772. Specification of Letters Patent. Patented July 2, 1907.

Application filed September 18, 1905. Serial No. 278,967.

To all whom it may concern:

Be it known that I, MILTON F. WILLIAMS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Hammers for Crushers and Pulverizers, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional view of a crusher and pulverizer showing my improvement; and Fig. 2 is a detail view of the hammer or striker.

This invention relates to a new and useful improvement in crushers or pulverizers and particularly to the hammer or beater which is pivotally mounted upon a rotating support and which disintegrates the material entering the feed end of the machine.

The object of my present invention is to construct the striking point of the hammer or beater so that it will have a tendency to draw material into the machine, the receding heel portion assisting in keeping the striking edge in a pointed condition whereby the life of the hammer is materially increased.

With these objects in view, the invention consists in the construction, arrangement and combination of the several parts all as will be hereinafter described and afterward pointed out in the claims.

1 indicates the side frames, 2 the breaker plate, 3 the hopper into which material is to be dumped to be fed into the machine onto the breaker plate, 4 is the cover for the machine, and 5 is the grinding surface or cage which is adapted to co-act with the hammers or beaters in reducing material to a degree of fineness enabling the particles to pass through the spaces or openings in the grinding surface.

6 indicates a shaft and 7 the hammer supports keyed thereon and between which are arranged the hammers or beaters 8. Each hammer 8 is of uniform thickness throughout and is of approximately rectangular-shape, the outer end of the hammer projecting forwardly beyond the straight front edge of the hammer to form a striking point 9 and the extreme outer end face 10 of the hammer receding inwardly from the point 9 so that it co-operates with the straight rear edge of the hammer to form an angular-shaped heel. There is preferably a curved throat portion 11 adjacent the point 9 which tends to throw the material disintegrated by the hammer inwardly into the machine. The receding portion 10, which is preferably curved, although it may be straight, enables the point of the hammer to be worn down close to the stock and still maintain its pointed shape so that the throat portion will force the material into the machine.

It will be noted that the thickness of the hammer is the same throughout, which enables it to be cheaply manufactured and also to be conveniently re-pointed by the use of ordinary blacksmith's tools, when occasion demands.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

In a crusher and pulverizer, the combination of a casing having a grinding surface, a cover and a hopper, a rotatable hammer support, a hammer upon said support of a substantially rectangular shape having its front and rear edges straight and parallel approximately throughout its length, the end of said hammer being inclined at an obtuse angle to the rear edge thereof, and terminating in a point from which a throat curves downward to meet the front edge of the hammer, the said inclined end forming an elongated surface coacting with said grinding surface whereby the hammer may be worn down and still retain its pointed shape.

In testimony whereof, I hereunto affix my signature, in the presence of two witnesses, this sixteenth day of September 1905.

MILTON F. WILLIAMS.

Witnesses:
F. R. CORNWALL,
GEORGE BAKEWELL.