W. F. MOSSER.

BARK-MILL.

No. 190,777. Patented May 15, 1877.

Fig. 1

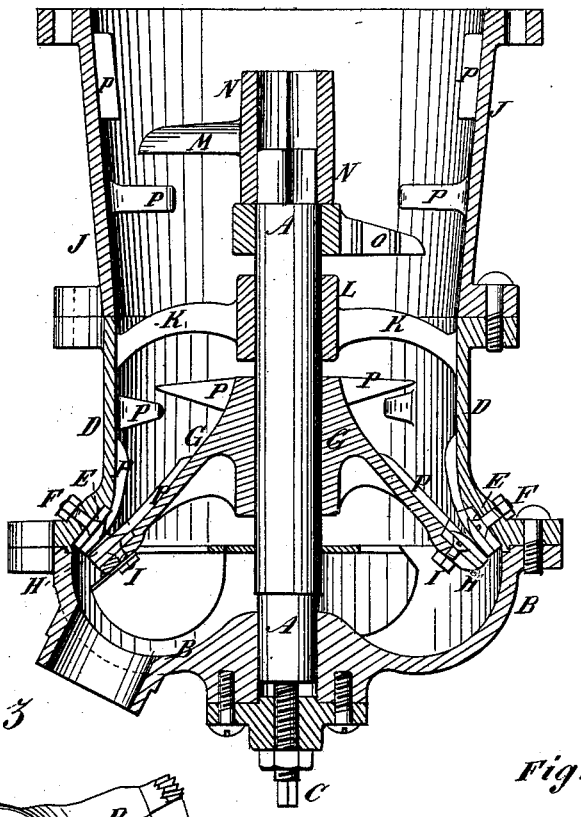
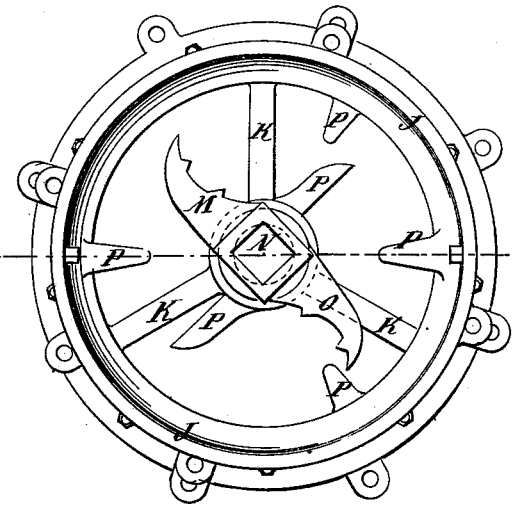


Fig. 3

Fig. 2



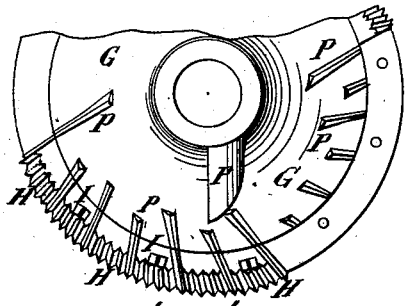
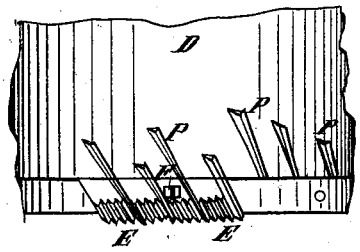


Fig. 4



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM F. MOSSER, OF ALLENTOWN, PENNSYLVANIA.

IMPROVEMENT IN BARK-MILLS.

Specification forming part of Letters Patent No. **190,777**, dated May 15, 1877; application filed February 3, 1877.

To all whom it may concern:

Be it known that I, WILLIAM FRANKLIN MOSSER, of Allentown, in the county of Lehigh and State of Pennsylvania, have invented a new and useful Improvement in Bark-Mill, of which the following is a specification:

Figure 1 is a vertical section of my improved bark-mill. Fig. 2 is a top view of the same. Fig. 3 is a detail top view of the runner. Fig. 4 is a detail view of the inner surface of the lower part of a portion of the shell of the mill.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved mill for grinding bark, provided with a safety device to prevent breakage should a foreign substance get into it.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

A is the shaft, the lower end of which revolves in an oil-tight step in the bottom of the bowl B, where it is supported adjustably by a screw-pivot, C, so that the mill may be readily adjusted to grind finer or coarser, as may be desired.

Upon the upper edge of the bowl B are formed lugs to correspond with lugs upon the lower edge of the shell D, and which are perforated to receive the bolts by which the said shell and bowl are secured to each other. The lower part of the shell D is flared outward, or made somewhat bell shaped, and in its inner surface is formed a ring-groove, into which are fitted toothed segments E of a ring-plate, which are secured in place by bolts F, passing through them and through the shell D. This construction brings the segments E to an inclination of about forty-five degrees, (45°.) G is the runner, which is secured to the shaft A, and is made in the shape of a concaved cone.

In the lower edge of the runner G is formed a ring-groove to receive toothed segments H, which are secured in place by bolts I, passing through the wall of the runner G.

By this construction, should the toothed segments E H break or get dull, they can be readily detached and replaced by others.

Around the upper edge of the shell D are formed lugs to correspond with lugs formed around the lower edge of the upper shell or hopper J, and which are perforated to receive the bolts by which they are secured together. Upon the inner surface of the upper part of the shell D are formed the outer ends of arms K, the inner ends of which are formed upon a collar, L, through which the shaft A passes. Upon the upper end of the shaft A is placed a breaker, M, which is formed upon a long collar, N, through which is formed a square hole, so that its lower end may fit upon the square upper end of the shaft A, leaving its upper end empty to receive the square lower end of the driving-shaft.

By this construction, the breaker M N serves as a coupling, and should be of such a strength as to drive the runner G under ordinary circumstances; but should any hard substance get into the mill, the collar N will break, and thus prevent the mill from being broken.

If desired, a breaker, O, may be used without being provided with a coupling-collar.

Upon the shell D, the shell or hopper J, and the runner G are formed teeth, projections, or flanges P, to break the bark into pieces before it passes to the toothed or grinding segments E H.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A bark-mill provided with the breaker M, arranged on a collar, N, of its shaft, as and for the purpose specified.

WILLIAM F. MOSSER.

Witnesses:

THOS. O. GINKINGER,

A. E. WELLMAN.