C. Koehler.

Rounding Shot.

No. 99,209. Patented Jan. 25, 1870.

Fig. 1

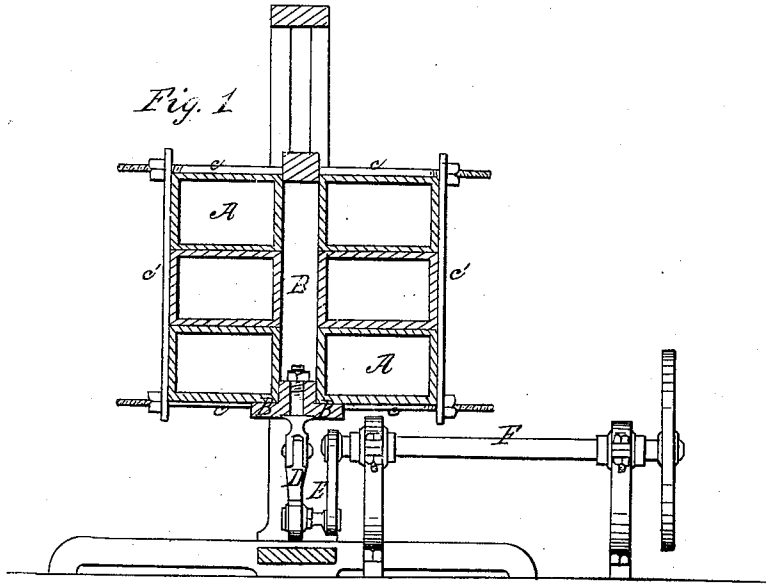
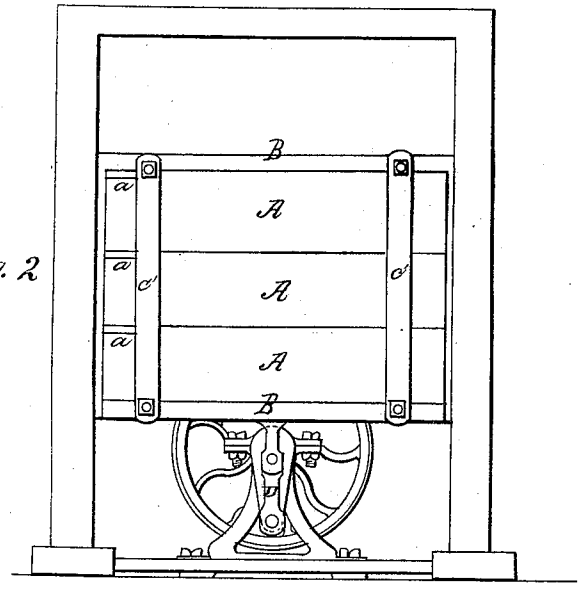


Fig. 2



Witnesses;
William W. Herthel
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United States Patent Office.

CHARLES KOEHLER, OF ROSICLARE, ILLINOIS.

Letters Patent No. 99,209, *dated January* 25, 1870.

IMPROVEMENT IN MACHINES FOR ROUNDING SHOT.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES KOEHLER, of Rosiclare, in the county of Hardin, and State of Illinois, have made a new and useful Improvement in Machines for Rounding Shot; and I do hereby declare the following to be a full and true description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to machines for rounding shot after the shot-material has been cut to proper size.

For said purpose, the nature of this invention is in the arrangement of one or more boxes or other receptacles, which are violently agitated, to cause the shot to rise and drop, striking said receptacle and colliding with each other, so as to wear and beat themselves to a spherical form.

To enable those herein skilled to make and use my said invention, I will now more fully describe its construction and operation, reference being had to the accompanying drawings, of which—

Figure 1 is a sectional elevation.

Figure 2, an end view of the same.

In the process in which my said machines are used, the shot-material is first formed in the usual manner, and granulated. The granulated (usually angular) mass of shot is then placed in one or more boxes, A, made of wood or similar material, and provided with an inlet-opening and cover, *a*, for inserting the shot. In its usual form, my said machine has a number of boxes, each of such size as to be readily handled.

The shot-material, having been placed within, the boxes are placed upon the slide-frame B, being firmly clamped together by the bolt-rods *c* and bars *c'*. The frame B and its boxes A are then to receive a rapid reciprocating motion. This is done by the pitman D and crank E, operated by the power-shaft F, from any proper power-source, and in the usual manner.

The shaft being rotated, the shot-boxes are raised and lowered, causing the shot-material to beat and grind itself to a spherical form, as desired. The operation is continued until proper rotundity is reached, when the boxes are removed and emptied, the shot being passed to the polishing-mills, to be polished in the ordinary manner.

It is apparent, that by this process great economy of outlay in arranging shot-works is reached, the machinery here used being attachable to any of the ordinary power-machines in use at lead-mines.

The process thus described is applicable wherever it is required to give a spherical form to materials of a like nature to those hereinbefore especially referred to.

Having thus fully described my invention,

What I claim, is—

The boxes A, provided with inlets *a*, when said boxes are arranged and secured in a centre sliding frame, B, clamped by rods *c c'*, and subjected to a reciprocating motion, as set forth.

In testimony of which invention, I have hereunto set my hand, in the presence of—

CHARLES KOEHLER.

Witnesses:

WILLIAM W. HERTHEL,
ROBERT BURNS.