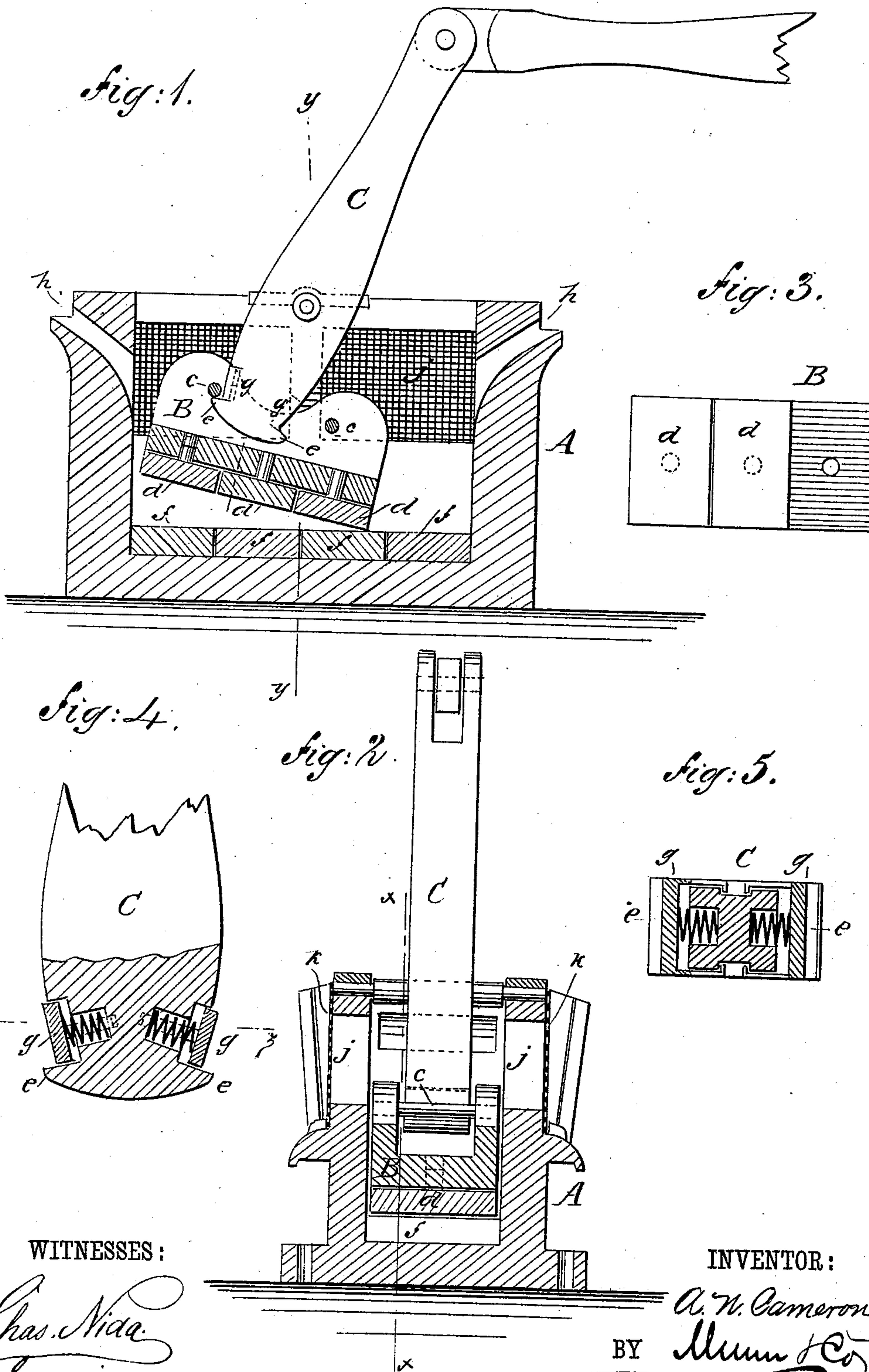


(No Model.)

A. N. CAMERON
ORE CRUSHER.

No. 255,935.

Patented Apr. 4, 1882.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ANGUS N. CAMERON, OF GREENVILLE, CALIFORNIA.

ORE-CRUSHER.

SPECIFICATION forming part of Letters Patent No. 255,935, dated April 4, 1882.

Application filed January 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANGUS N. CAMERON, of Greenville, in the county of Plumas and State of California, have invented a new and useful
5 Improvement in Ore-Crushers, of which the following is a full, clear, and exact description.

The object of my invention is to provide an ore reducing or pulverizing mill having such
10 construction and operation that the ore will be subjected to both a stamping and rubbing action.

My invention consists of a block or stamp-head adapted to be moved from end to end of
15 the ore-box or battery and to have its ends alternately raised and dropped by a rocking lever pivoted in the ore-box, as hereinafter described and claimed.

Reference is to be had to the accompanying
20 drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of my improved ore stamp or mill, taken on the line *x x*
25 of Fig. 2. Fig. 2 is a similar view taken on the line *y y* of Fig. 1. Fig. 3 is a bottom view of the stamp head or block, one of the plates or shoes being removed. Fig. 4 is a sectional elevation of the rocking lever; and Fig. 5 is a
30 cross-section of the same, taken on the line *z z* of Fig. 4.

A represents the ore-box; B, the stamp head or block, and C the rocking lever, which is
35 formed at its lower end with the projections *e e*, and is pivoted upon the edges of the ore box, as shown.

The bottom of the ore-box A is faced with the removable hardened plates *f f*, and the bottom of the stamp head or block is faced with
40 the removable hardened plates *d d*, and is formed with the cross pieces or rods *c c*.

The relation of the projections on the lower end of the rocking lever with the cross-pieces
45 *c c* of the stamp head or block is such that upon imparting motion to the rocking lever the projections will engage with the cross-pieces and move the stamp head or block from end to end of the ore-box, and alternately
50 raise and let fall the ends of the block, thus causing the block to have both a stamping and grinding or rubbing action.

At the points where the cross pieces or rods *c c* come in contact with the vertical sides of the rocking lever I provide the lever with the spring-supported plates *g g*, which act as buffers to ease and deaden the concussion when
55 the lever and cross-pieces come in contact, and thus protect the lever from excessive and unnecessary wear.

The ore is fed to the ore-box through the
60 feed-openings *h h*, and the side openings, *j j*, of the ore-box are covered in the ordinary manner with the wire-cloth *k*, as shown. This double action of the stamp-head is of great advantage, as the ore is pulverized more thor-
65 oughly and put in a better condition for subsequent treatment than by the ordinary stamp-mill, and the machine is more rapid in its action than mills that work solely upon the attrition principle, combining, as it does, both the
70 stamping and rubbing or grinding actions.

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

1. The combination, with the ore-box A and rocking lever C, of the stamp-head B, adapted
75 to be moved from end to end of the ore-box and to have its ends alternately raised and dropped by the rocking motion of the said lever, as and for the purpose set forth.

2. The stamp head or block B, provided
80 with the cross pieces or rods *c c*, in combination with the box A and the lever C, provided with the projections *e e*, substantially as and for the purposes set forth.

3. The lever C, provided with the spring-
85 supported plates *g g* and the projections *e e*, in combination with the box A and the stamp head or block B, provided with the cross pieces or rods *c c*, substantially as and for the purposes set forth.

4. The ore-box A, formed with the openings *h h*
90 and provided with the plates *f f*, and the stamp head or block B, formed with the cross-pieces *c c* and provided with the plates *d d*, in combination with the lever C, formed with the pro-
95 jections *e e* and provided with the spring-supported plates *g g*, substantially as and for the purposes set forth.

ANGUS NORMAN CAMERON.

Witnesses:

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A. D. McMILLAN.