

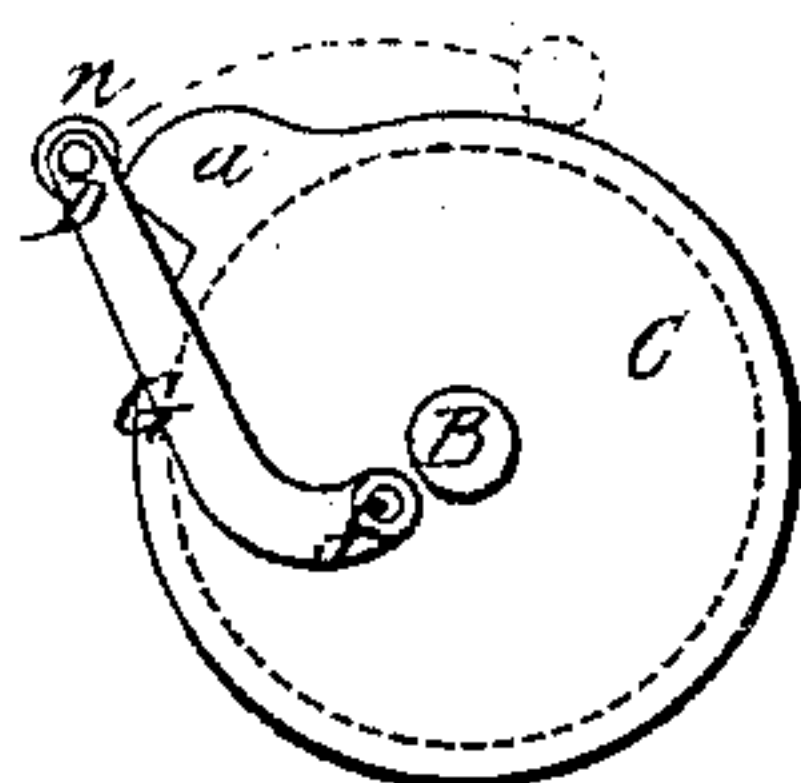
H. J. BEHRENS.

Ore Stamp.

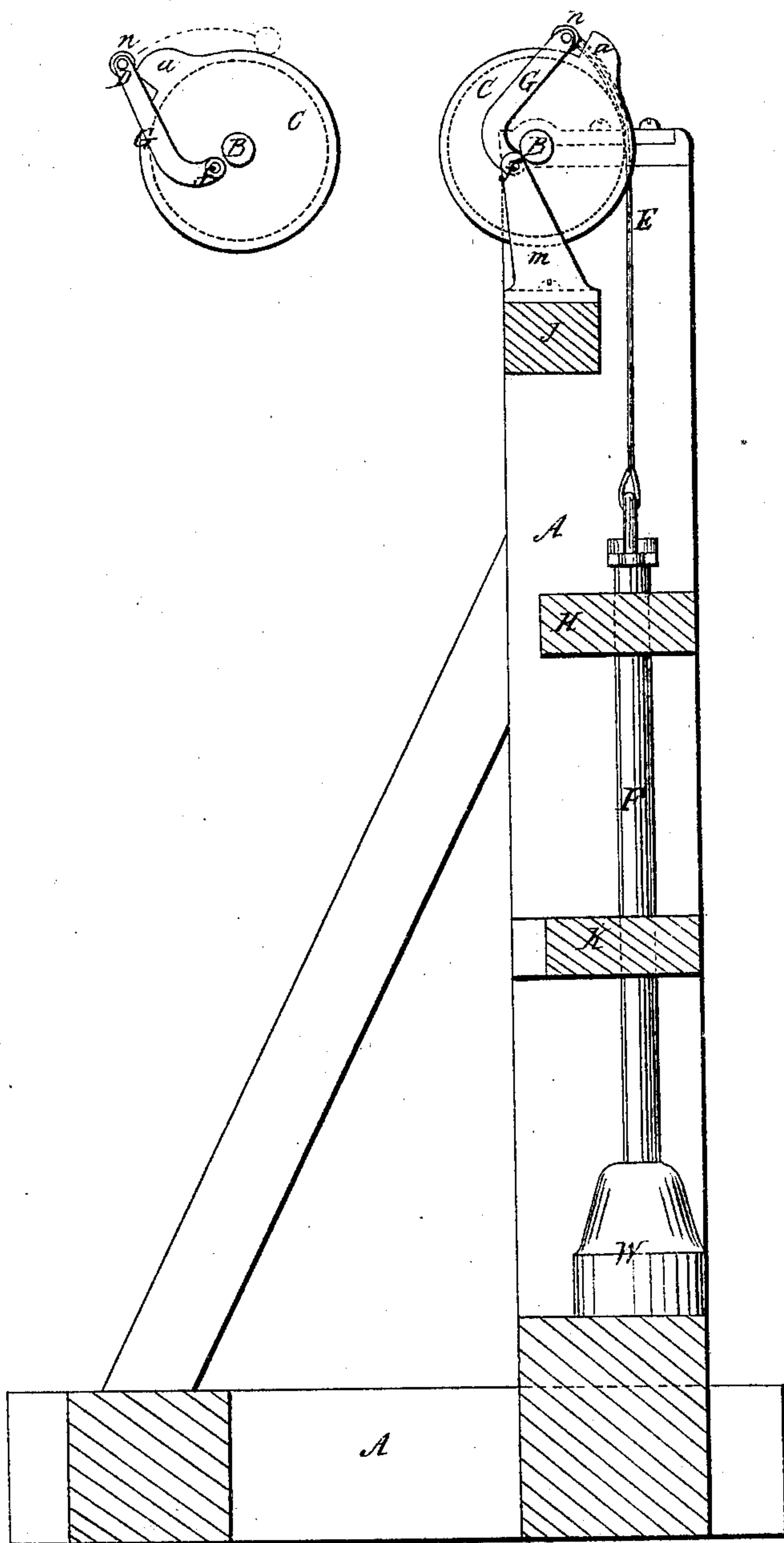
No. 50,326.

Patented Oct. 10, 1865.

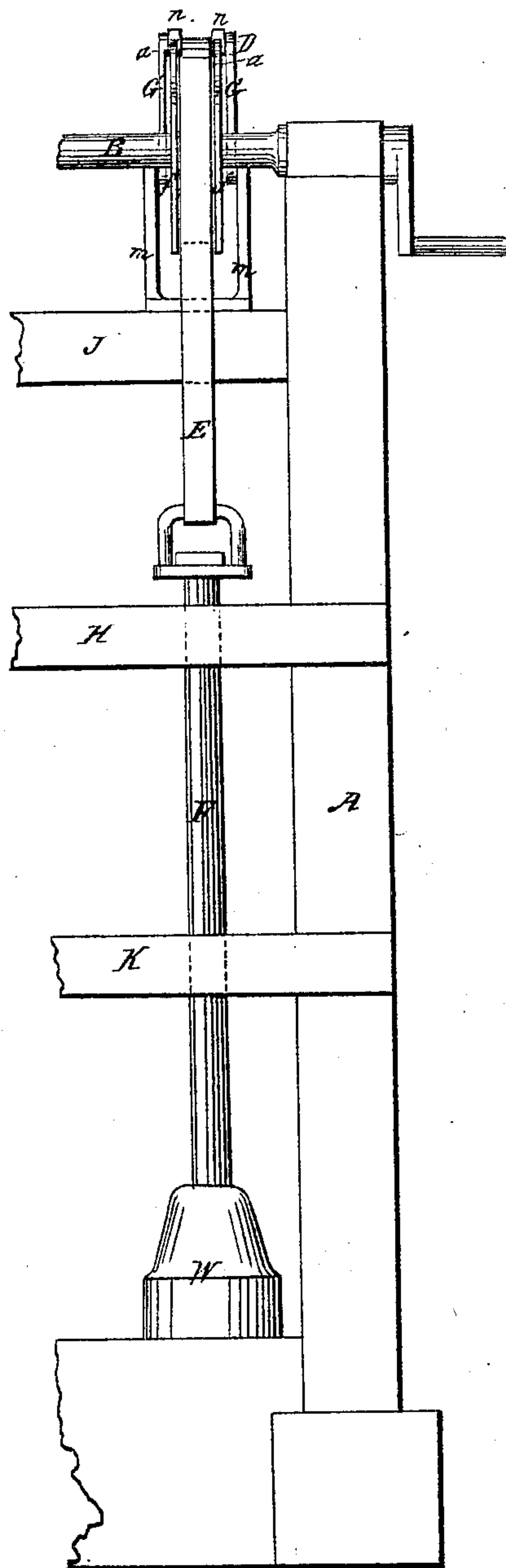
*Fig. 3.*



*Fig. 2.*



*Fig. 1.*



**Witnesses:**

*Henry C. Roeder*

*David Mosher*

**Inventor:**

*Henry J. Behrens*

# UNITED STATES PATENT OFFICE.

HENRY I. BEHRENS, OF NEW YORK, N. Y.

## IMPROVEMENT IN ORE-CRUSHING STAMPS.

Specification forming part of Letters Patent No. 50,326, dated October 10, 1865.

*To all whom it may concern:*

Be it known that I, HENRY I. BEHRENS, of New York, in the county and State of New York, have invented new and useful Improvements in Stamps for Crushing Seed, Ore, &c.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the arrangement of a revolving pulley provided with one or more sets of projections or noses, which during the revolution of the pulley take hold of a cross-bar connected by means of a belt or chain with the stamp-rod, and thereby lift the stamp, said cross-bar being supported in the ends of levers which are situated on each side of the pulley and turn on fixed centers some distance from the center on which the pulley turns, giving thereby to the cross-bar a motion concentric with the circumference of the pulley, whereby said cross-bar is brought at a certain point clear again from the nose on the pulley, so as to allow the stamp-rod to fall by its own weight.

Figure I shows a front view of my improved stamper, and Fig. II represents a side elevation of the same.

In the accompanying drawings, A is the framework, on the upper end of which the driving-shaft B is arranged, to which the pulley C is attached. This pulley C is provided with projections or noses *a a*, one on each side of the pulley and in a line with each other. Small projecting flanges may likewise be arranged on each side of the pulley to guide the belt or chain lying upon the circumference of the pulley. On each side of the pulley C levers G are arranged, turning on centers *f* in the frame or stands *m*, attached to the cross-beam J, said center of motion of the levers G being placed some little distance from the center of the pulley C.

To the upper ends of the levers G the cross-bar D is attached, connecting at the same time the levers G together. This cross-bar D may be made either to turn in the ends of the levers G, or small friction pulleys *n n* may be arranged on the same, working on the outer edges of the pulley C or upon the flanges arranged on each side of the pulley.

To the cross-bar D the belt or chain E is attached, lying upon the surface of the pulley C, the other end of said chain or belt E being attached to the stamp-rod F. This stamper-rod

F is guided in the cross-beams H and K in the usual manner, and is provided at its lower end with a suitable stamper or weight, W.

Instead of making one set of projections or noses *a a* on the pulley C, as here represented, two or three sets of noses may be arranged around the circumference of this pulley. Motion being communicated to the shaft B, the projections or noses *a a* will come in contact with the cross-bar D, or with the friction rollers *n n* on said cross-bar, carrying the same around, and thereby lift the stamper-rod F with its weight or stamper W. This cross-bar D, while being carried round by the noses *n*, turns around the fixed centers *f* in the stands *m*, which, being placed some distance from the center of motion of the pulley C, causes a concentric motion to be communicated to said cross-bar D relative to the motion of the circumference of the pulley C or of the noses *n*, in consequence of which this cross-bar D will, after being carried around some distance by said noses *n*, move clear of the noses *n*, (see Fig. III,) so as to allow then the stamper-rod F to fall or drop again by its own weight. By the dropping of the stamper-rod F the cross-bar D is brought forward again until stopped by coming in contact with the surface of the pulley C, ready to be taken hold of again by the noses *n* when the same come around again, producing thereby the alternate lifting and dropping of the stamper-rod.

In the drawings only one stamper, with its necessary driving-gear, is shown; but it will be readily understood that any number of stampers may be arranged side by side, with suitable pulleys, on the shaft and operated in the manner above described.

I do not claim the pulley C with noses attached, nor the cross-bar D; but

What I claim as my invention, and desire to secure by Letters Patent, is—

Giving to the cross-bar D an eccentric motion to the motion of the pulley and its nose by means of the levers G, which carry said cross-bar D, and whose centers of motion are placed some distance from the center of motion of the driving-shaft or pulley, and operating in the manner and for the purpose substantially as described.

HENRY I. BEHRENS.

Witnesses:

HENRY E. ROEDER,  
DAVID MOSHEY.