

L. D. WEBB.  
Ore-Stamps.

No. 143,480.

Patented Oct. 7, 1873.

Fig. 1.

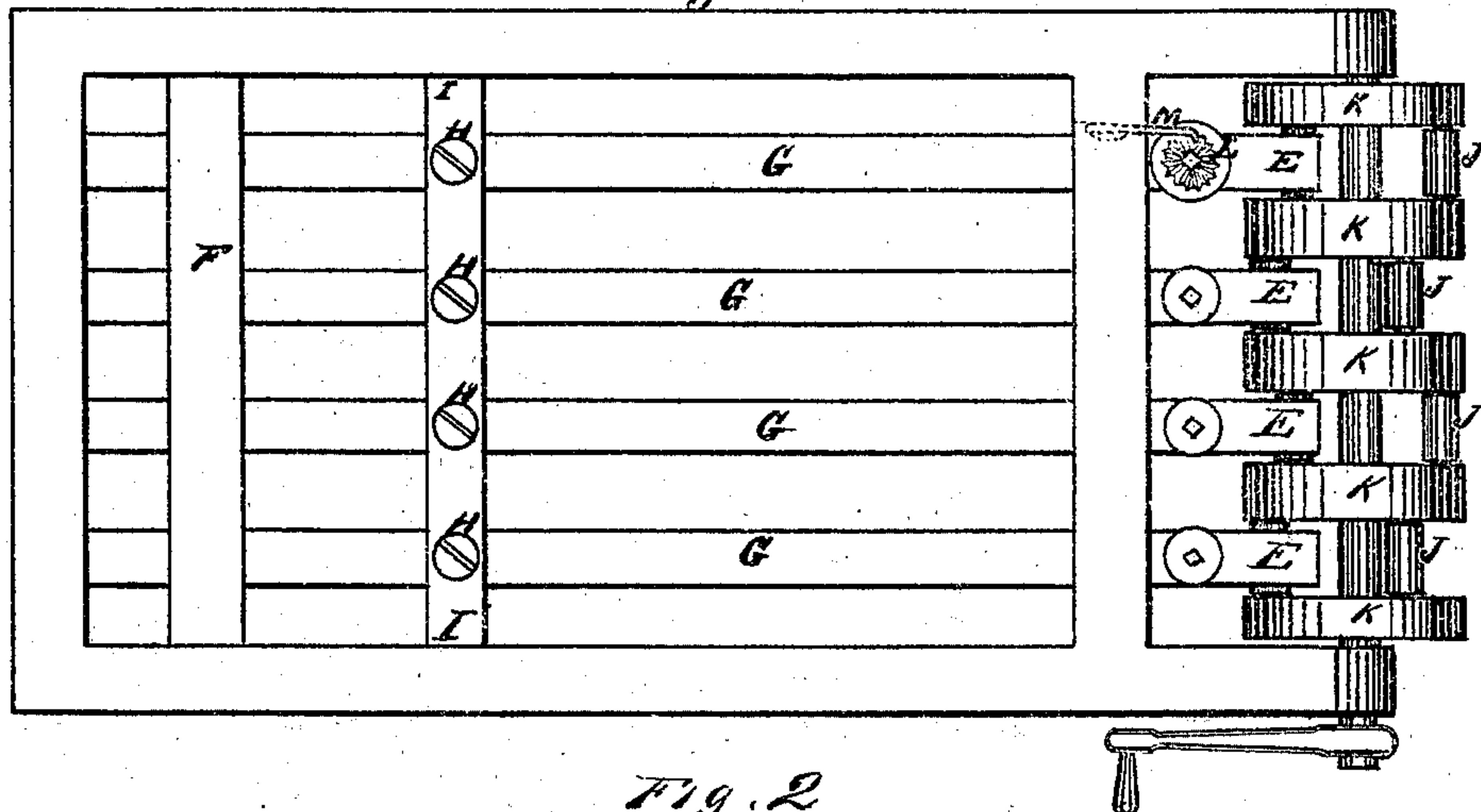


Fig. 2.

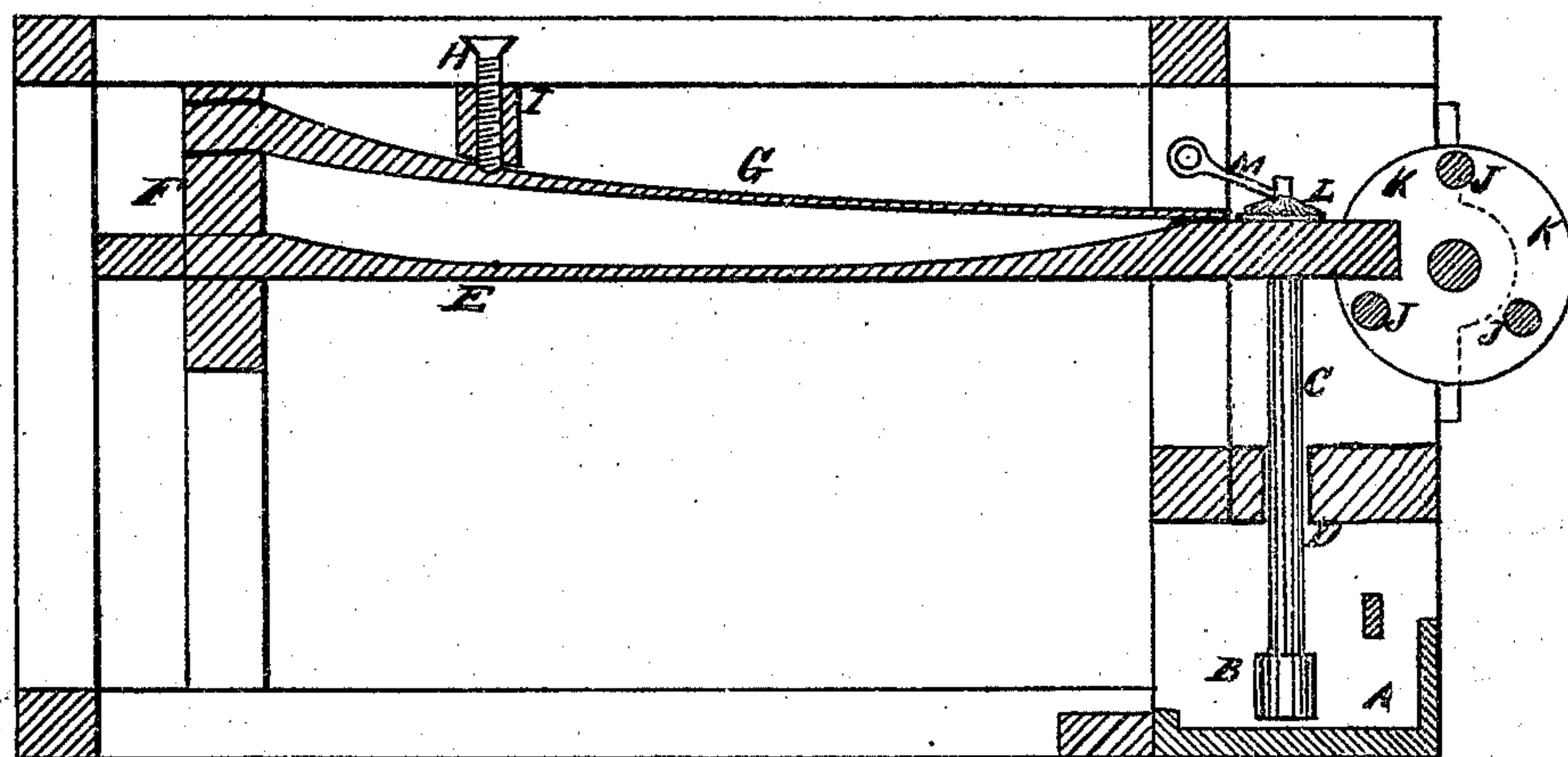
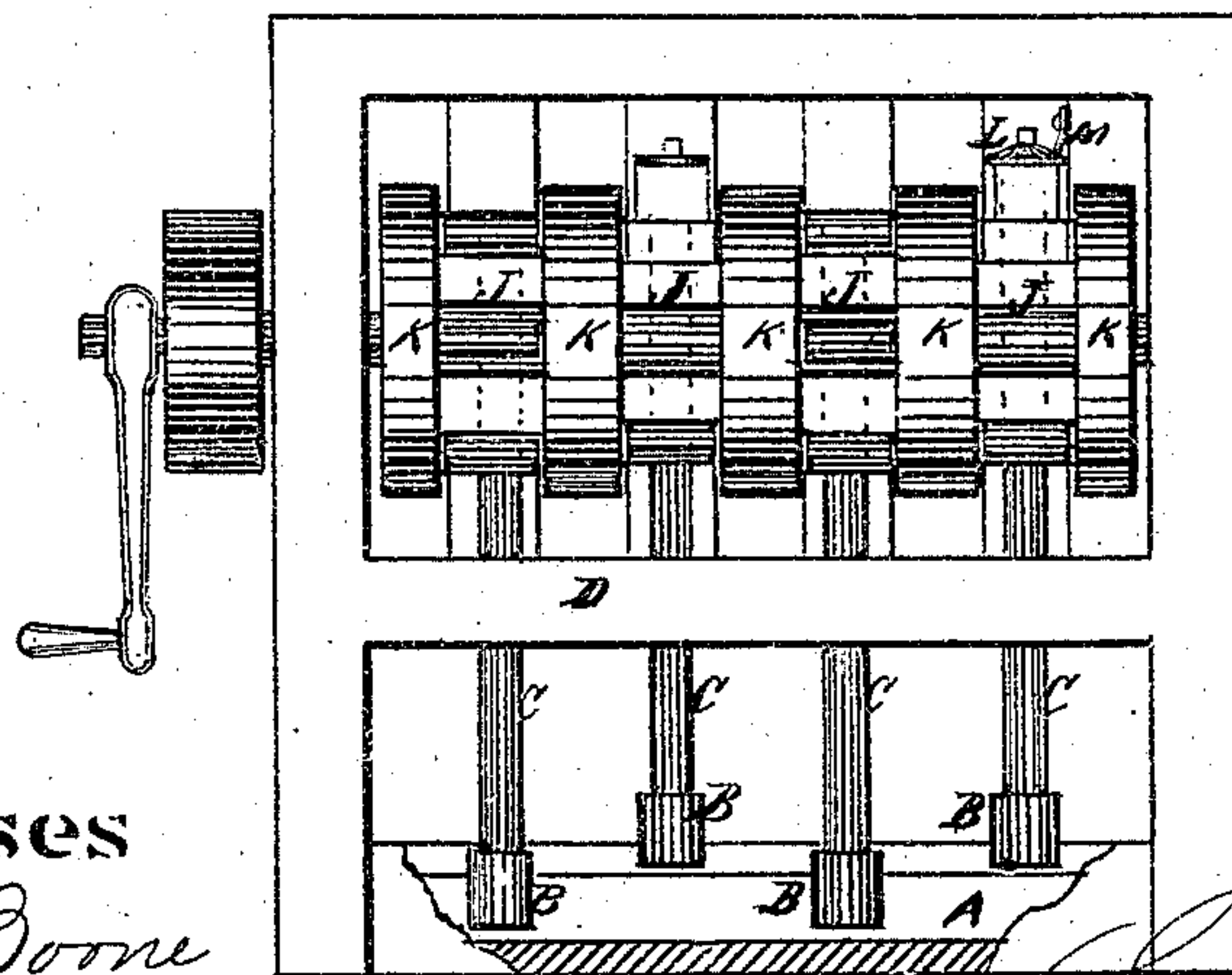


Fig. 3.



Witnesses

John L. Boone  
C. H. Richardson

Lewis Deane Webb  
by Deane &  
Attys

# UNITED STATES PATENT OFFICE.

LEWIS D. WEBB, OF GREENVILLE, CALIFORNIA.

## IMPROVEMENT IN ORE-STAMPS.

Specification forming part of Letters Patent No. **143,480**, dated October 7, 1873; application filed August 1, 1873.

*To all whom it may concern:*

Be it known that I, LEWIS D. WEBB, of Greenville, Plumas county, State of California, have invented a Spring-Stamp Battery; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

The object of my invention is to provide an improved spring-battery for crushing ores; and it consists in the use of rollers on the lifting-cams for the purpose of obviating friction.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a plan or top view of my machine. Fig. 2 is a longitudinal section. Fig. 3 is an end view.

A is the mortar, within which the dies are placed, and upon these dies the ore or rock is fed to be crushed by the falling of the stamps B. These stamps have stems C, which rise and fall through the guide D, and have their upper ends loosely secured in the ends of the spring-bars, so as to be forced down by them and lifted by the action of the cams upon them, and at the same time receive a rotary motion by suitable devices. The spring for each cam consists of two parts. One part, E, has one end securely fixed in the frame F of the machine, while the other end receives the end of the stamp, as before described. The extremity of the spring-bar is raised by the alternate action of the cams. The upper part G of the spring consists of a bar similar to the one, E, described before, and this is also secured in the frame-work just above, so that its free end will rest forcibly upon the spring-bar E, and thus add to the power which it will exert. Screws H

pass through the beam I just above the springs G, and these serve to increase or diminish their tension, as the case may require.

The cams may be made in any suitable manner; but I prefer to form with rollers J, which turn between flanges K, these flanges being keyed to the driving-shaft. By this means I am enabled to avoid much of the friction consequent upon the lift of the cams.

In order to rotate the stamps and stems regularly, and thus cause an equal wear of the parts, I secure a ratchet-wheel, L, to the stem just above the spring-arm, this ratchet lying horizontally upon its upper surface. A pawl, M, is pinned to the frame-work so as to rest one end upon the ratchet. Whenever the stamp is raised by the cam the pawl will, from its position, operate to rotate the ratchet and stem.

By this mechanism I am enabled to crush ores and other substances with great rapidity, and my power can be easily adjusted to suit the class of ore which is to be operated upon.

By my anti-frictional device the power needed to drive my machine is reduced to the minimum.

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

The cams composed of the rollers J, turning between the flanges K, and constructed to operate upon the ends of the springs E, substantially as herein described.

In witness whereof I hereunto set my hand and seal.

LEWIS DEMERE WEBB. [L. S.]

Witnesses:

J. C. PATON,  
W. B. LATHROP.