J. Stever,

Ore Stamp,

No. 27,744, Patented Apr. 3. 1860.

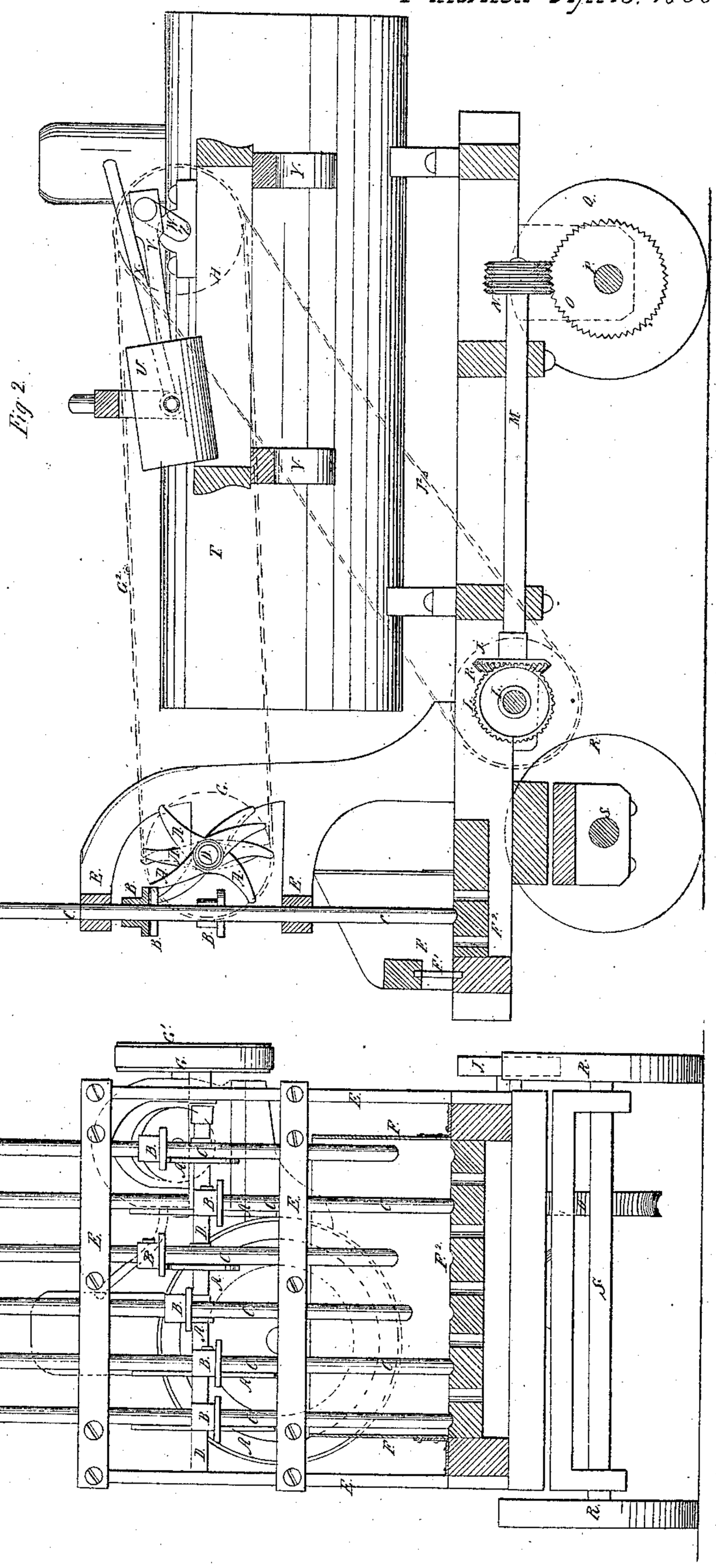

Fig. 2.

Fig. 1.

Witnesses:

Goodwin A. Wing
Lusitanus Dutcher

Inventor:

Jeremiah Stever

UNITED STATES PATENT OFFICE.

JEREMIAH STEVER, OF BRISTOL, CONNECTICUT.

PORTABLE STAMPING-MACHINE FOR CRUSHING STONES, &c.

Specification of Letters Patent No. 27,744, dated April 3, 1860.

To all whom it may concern:

Be it known that I, JEREMIAH STEVER, of Bristol, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Portable Steam Stamping-Machines for Stamping Stone, &c. for Macadamizing and other Purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, is a vertical cross section through the front part of the machine, and Fig. 2, a side view and partial longitudinal vertical section.

Similar letters of reference in each of the several figures indicate corresponding parts.

The nature of my invention consists in the combination and arrangement of the carriage, boiler, oscillating engine, pulleys, gearing and stamping device for the purpose of obtaining a simple and effective portable steam stone or ore crushing machine in which the steam power may be used either for working the ore crushing device or for moving the whole machine to and from the localities where the ore or stone is gathered.

To enable others, skilled in the art, to make and use my invention, I will proceed to describe its construction and operation.

The oscillating cylinder U, is supplied with steam from the boiler T, through a steam-pipe X, and hollow trunnion. The bearings of the cylinder U, as well as the bearings of shaft Z, which is worked by the piston rod V, and crank W, are arranged upon brackets Y, Y, fastened to the boiler T.

Power is transmitted to the ore crushing device by means of an endless band G^2, connecting pulley H, upon shaft Z, and pulley G, upon cam shaft D. As this shaft D, revolves, the cams *a*, which are arranged upon the shaft D, (one cam A, for each stamper C,) act upon the collars B, fastened to the stampers C, and alternately lift and let fall the stampers for the purpose of crushing the ore contained in the box *f*, the perforations in the bottom f^2, and the open spaces between the bars f', forming the front of the box F, allow the pulverized substance to escape.

The bearings of the stampers C, and of the cam shaft D, are arranged in a frame E, extending from the main frame of the carriage, which latter rests upon axles S, P, and wheels R, Q.

If it is desired to stop the crushing operation and move the machine to another locality, the band G^2, is shifted from pulley G, to the pulley J, and made to occupy the position designated by J^2. In order to thus employ the one bolt for both purposes, I make the belt with jointed sections so that it may be lengthened or shortened. The revolving motion thus imported to shaft L, is transferred to shaft M, and from the latter to carriage wheel axle P, by means of bevel gearing L, R, and worm gear N, O, arranged upon the respective shafts.

The worm gear is employed for the purpose of inparting slow motion to the carriage wheels Q, and thus enable the machine to move along and overcome the inequalities of the ground and ascend steep grades with comparatively small power.

The whole machine is compact and highly effective and answers admirably for mining and quarrying purposes, for the reason that it takes up little space, is not liable to get out of repair, its construction and arrangement is very simple and very economical, as the same power which is used for operating the ore crushing device may be employed for the propulsion of the machine from one locality to another, right to the spot where the ore has been gathered.

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

The combination and arrangement of the carriage S, P, Q, R, boiler T, oscillating engine U, V, W, pulleys H, J, G, gearing L, R, M, N, O, and stamping device E, A, B, C, F, in the manner and for the purposes set forth.

JEREMIAH STEVER.

Witnesses:

GOODWIN Y. AT LEE,

R. W. FENWICK.