J. COMLY.

Stone-Crusher.

No. 166,504. Patented Aug. 10, 1875.

Fig. 1

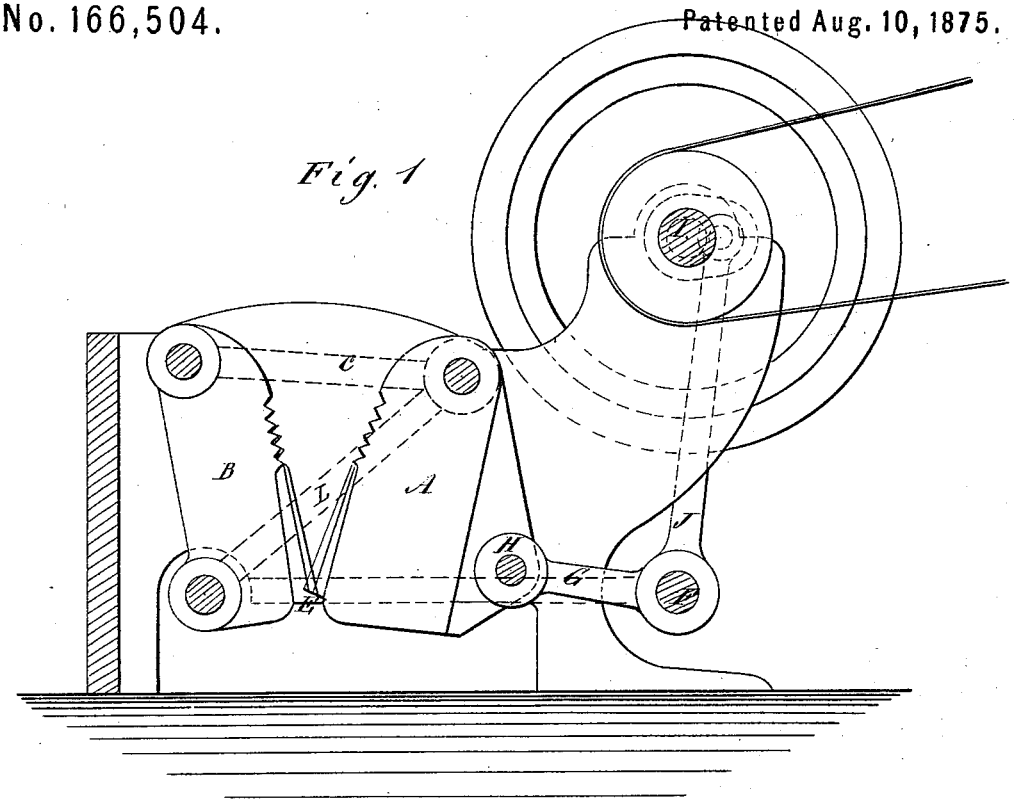


Fig. 2

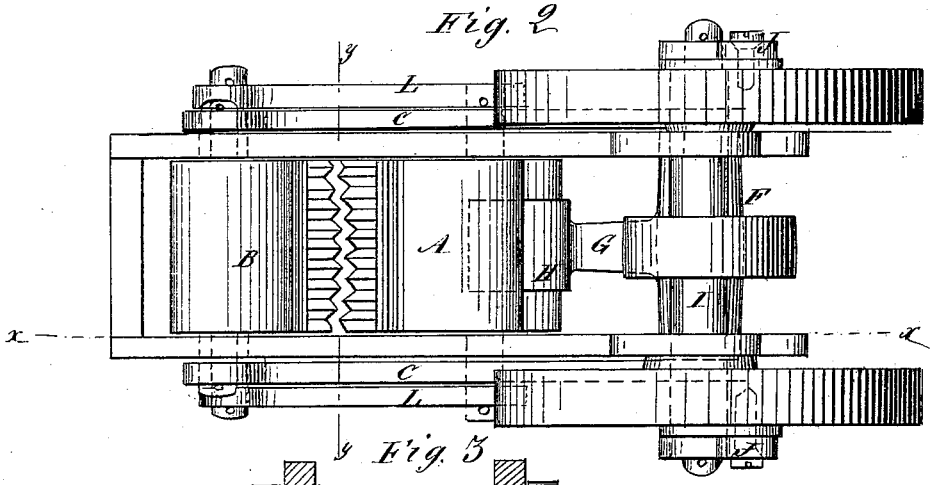
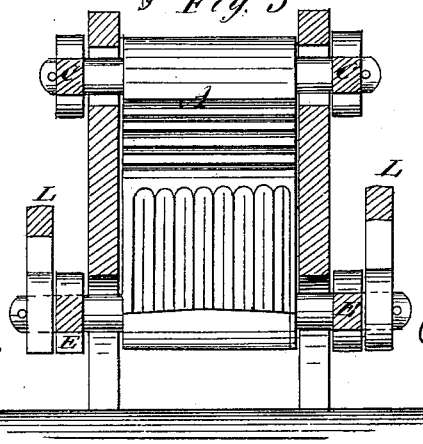


Fig. 3



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JOSHUA COMLY, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN STONE-CRUSHERS.

Specification forming part of Letters Patent No. **166,504**, dated August 10, 1875; application filed June 26, 1875.

To all whom it may concern:

Be it known that I, JOSHUA COMLY, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Stone-Crusher, of which the following is a specification:

My invention relates to stone-crushers having one stationary and one vibrating jaw; and it consists of a toggle-bar contrivance in combination with the crank-shaft and the rod connecting it with the movable bar in a manner calculated to apply very great force with a comparatively light and simple construction, which is at the same time simple and durable, and affords a very easy motion; and in combination therewith is a contrivance for giving vertical or endwise motion to the movable jaw, to be used or not, as may be found desirable, the said motion being preferable in some cases.

Figure 1 is a longitudinal sectional elevation of my improved stone-crusher, taken on the line *x x* of Fig. 2. Fig. 2 is a plan view, and Fig. 3 is a transverse section taken on line *y y* of Fig. 2.

Similar letters of reference indicate corresponding parts.

A is the stationary jaw; B, the movable jaw; C, tension-bars, by which they are connected to trunnions of the stationary jaw, for sustaining each one by the other against the resistance of the stones. E represents the connecting-rods by which the movable jaw is coupled to the rocker-head F of the toggle-bar G, which is pivoted to the frame at H, and the rocker is connected to the crank shaft I by the coupling-rods K. By the swinging of the rocker F around its pivot H, powerful vibrating motion is imparted to the lower end of the vibrating jaw B by means of comparatively light and inexpensive connections, and by working the jaw through the medium of the rocker F and toggle-bar G a very considerable leverage is obtained. L represents links or couplings, by which the vibrating end of the movable jaw is connected to the trunnions of the stationary jaw, to make the jaw rise and fall a little at the same time that it vibrates, the pivot-bearing of the jaw being contrived to permit such motion.

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

1. The combination of the rocker F and toggle-bar G with the crank-shaft and movable jaw, and the connecting-bars L, substantially as specified.

2. The vibrating end of the movable jaw, coupled to the stationary jaw by the rod L, and pivoted in bearings allowing it to have lengthwise motion, in combination with the rocker F and connecting-rod E, substantially as specified.

3. The vibrating jaw, having lengthwise motion, and being coupled to the trunnions of the stationary jaw, substantially as specified.

JOSHUA COMLY.

Witnesses:

J. S. WISE,

MORRIS LEADBEATER.