(No Model.)

W. H. BAXTER.

STONE OR ORE CRUSHER.

No. 267,394. Patented Nov. 14, 1882.

FIG 2.

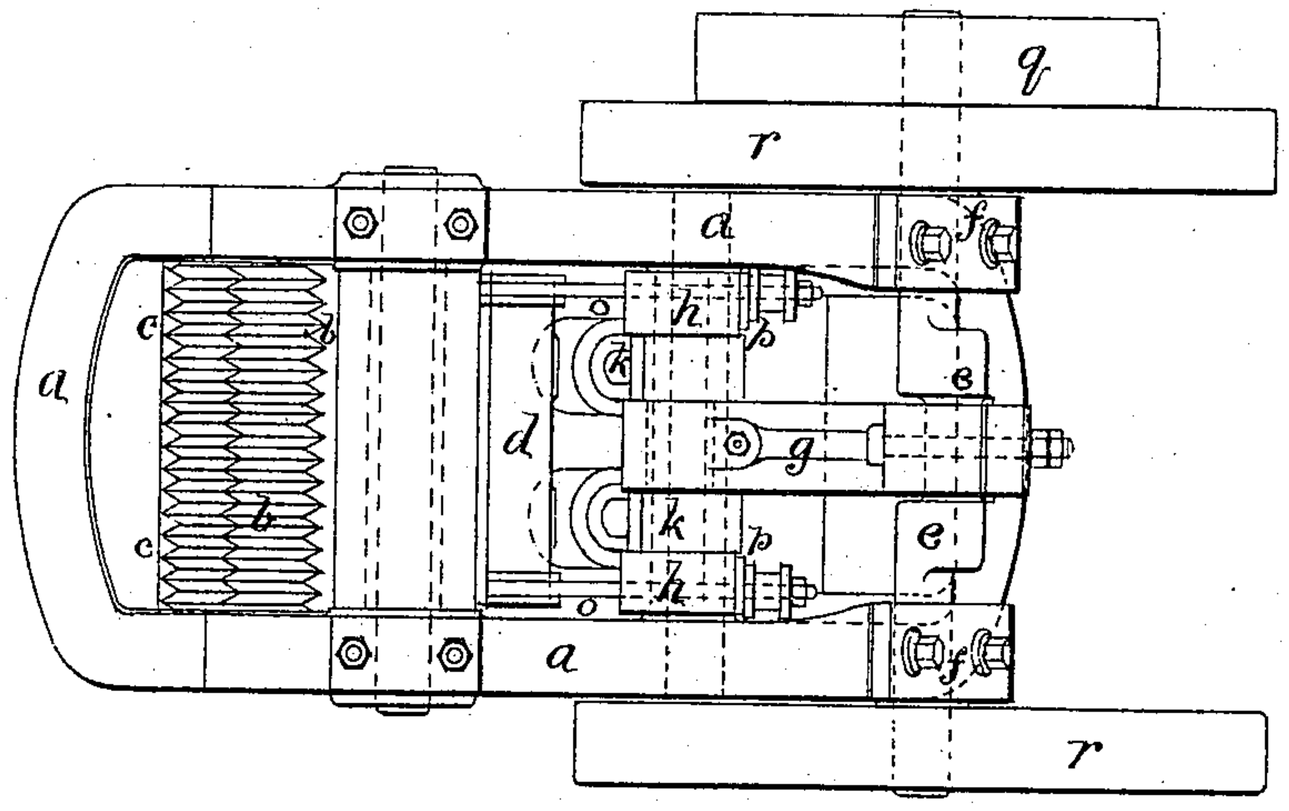
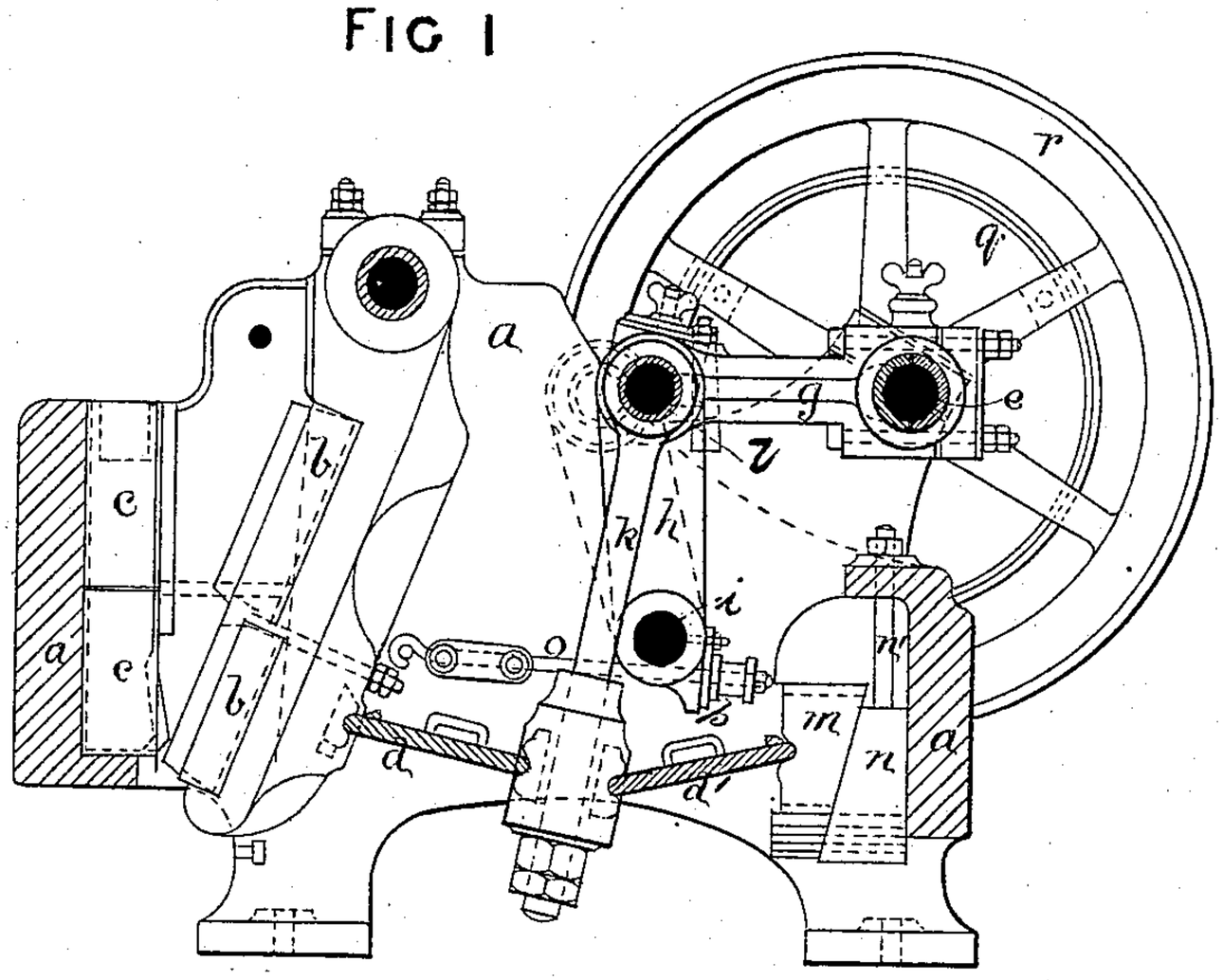


FIG 1.



WITNESSES { J. M. Sanders, J. C. Jefferson.

INVENTOR { W. H. Baxter.

UNITED STATES PATENT OFFICE.

WILLIAM H. BAXTER, OF LEEDS, COUNTY OF YORK, ENGLAND.

STONE OR ORE CRUSHER.

SPECIFICATION forming part of Letters Patent No. 267,394, dated November 14, 1882.

Application filed June 30, 1882. (No model.) Patented in England October 4, 1878, No. 3,914.

To all whom it may concern:

Be it known that I, WILLIAM HENRY BAXTER, of Leeds, in the county of York, England, have invented a new and useful Improvement in Stone or Ore Crushers, of which the following is a specification.

I have obtained Letters Patent for this invention in Great Britain, under date of October 4, 1878, No. 3,914.

The object of my invention is the production of a stone or ore crushing machine of great efficiency and crushing-power, the machine being comparatively light and cheap, and the parts arranged so as to be compact and to apply the crushing force to the best advantage.

In the drawings, Figure 1 is a longitudinal section, and Fig. 2 is a plan looking at the top.

a is the frame-work of the machine; *b*, the jaws, and *c* the corrugated plates in front of the jaws. Between the jaws *b* and plates *c* the crushing or breaking operation takes place.

The toggles *d d'* are of ordinary construction.

In order to give the required motion to the jaws *b*, I mount the crank-shaft or eccentric *e* in bearings *f* on the frame-work *a* of the machine and convey motion therefrom by means of the rod *g* to the lever-arms *h*, which are supported at *i* on the frame-work *a* of the machine.

To the upper ends of the lever-arms *h* are attached the toggle-rods *k*, and these lever-arms *h*, toggle-rods *k*, and rod *g* are connected together at their upper ends by the joint-pin *l*.

By giving a rotary motion to the crank-shaft or eccentric *e* a radial reciprocating motion is imparted to the lever-arms *h*, and during this movement of passing over its center the toggle-rods *k* are lifted and lowered, thus giving the desired motion to the toggles *d d'*, thence to the jaws *b*.

The inclines *m n* and bolt *n'* are of ordinary construction, and are employed to adjust the position of the jaws *b*.

The rods *o* and plates *p*, attached to the lever-arms *h*, are employed to transmit the return motion to the jaws. Motion is transmitted to the machine from some suitable motor through driving-pulley *q*, assisted by fly-wheel *r*.

I find by experiment that one great improvement achieved for transmitting motion to the jaws of stone or ore crushers is that instead of giving a slow-crushing motion it is preferable to give a hammer-like blow to the material, which more quickly and effectually breaks the stone or ore; also, that much less power is required for working the machine. The arrangement is also equally applicable to double as well as single machines; also, by increasing the length of the back toggles, *d'*, and shortening the front toggles, *d*, the motion of the jaws *b* is increased.

Having now described the nature of my said invention, what I claim is—

In a stone or ore crusher, the combination, with the moving jaws *b*, actuating-toggles *d d'*, and toggle-rods *k*, of the rod *g*, eccentric *e*, and actuating mechanism, the lever-arms *h*, connected at their lower ends to the frame-work of the machine, the joint-pin *l*, connecting the upper ends of the arms to the rod *g*, and toggle-rods *k*, substantially as and for the purposes set forth.

W. H. BAXTER.

Witnesses:
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