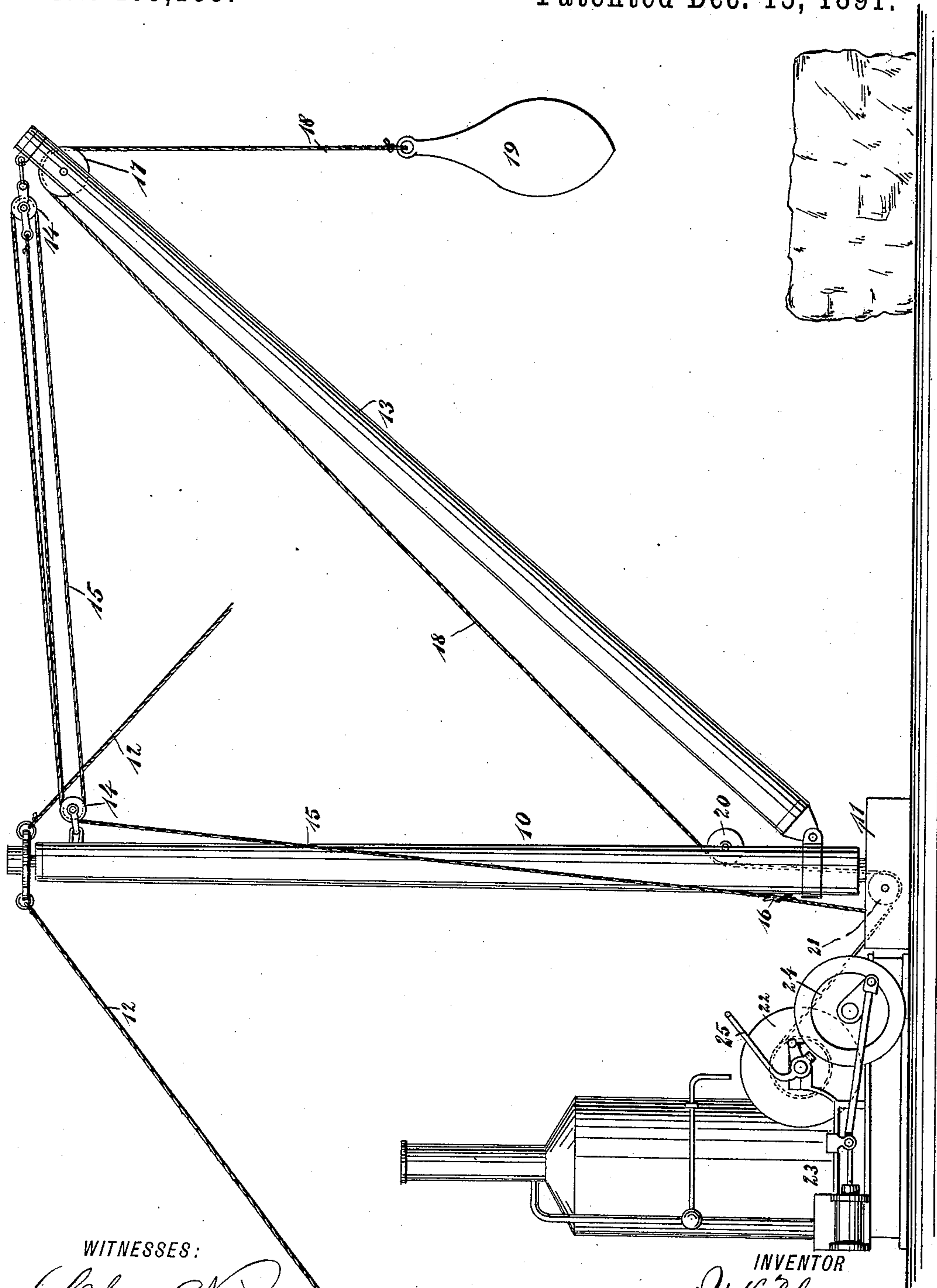


(No Model.)

J. H. BLOOMER.
ROCK BREAKER.

No. 465,153.

Patented Dec. 15, 1891.



WITNESSES:

Chas. Viola
Co. Sedgwick

INVENTOR

J. H. Bloomer
BY *Munn & Co*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN H. BLOOMER, OF JERSEY CITY, NEW JERSEY.

ROCK-BREAKER.

SPECIFICATION forming part of Letters Patent No. 465,153, dated December 15, 1891.

Application filed September 26, 1891. Serial No. 406,892. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BLOOMER, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Rock-Breaker, of which the following is a full, clear, and exact description.

My invention relates to improvements in rock-breakers; and the object of my invention is to produce a cheap and simple breaker by means of which large rocks may be rapidly and easily broken into fragments.

To this end my invention consists in a rock-breaker the construction of which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawing, forming a part of this specification, in which the figure is a side elevation of the rock-breaker embodying my invention.

The frame-work of the structure is substantially like an ordinary derrick, it having a vertical post 10, which is held to turn in a suitable base 11, and which is maintained in a vertical position by the guy-ropes 12. Extending outward from near the base of the post 10 is a swinging boom 13 of the usual kind, which has its free end connected with the post by means of the pulley-blocks 14 and rope 15, and the post is provided with the usual belaying-cleat 16, by means of which the rope may be fastened and the boom held in a desired position. The boom is provided with a pulley 17 near its free end, and extending over this pulley is a cable 18, which has at its free end a heavy hammer 19, which has a rounded face, is made preferably of steel, and is provided with a suitable eye, by means of which the cable 18 is secured to it. The cable 18 extends downward nearly parallel with the boom 13 and over guide-pulleys 20 and 21, which are pivoted, respectively, on the post 10 and base 11, and the cable is finally secured to a common form of winding-drum 22, which is driven by an engine 23, and is connected therewith by the usual gearing 24.

The drum is provided with a clutch operated by a lever 25, so that the drum may be released at any time and permit the cable 18 to be unwound. The clutch and driving mechanism of the drum are not shown in detail, as they are similar to the kinds commonly employed and form no part of my invention, as any suitable driving mechanism may be used for operating the drum and any ordinary releasing mechanism may be used for permitting it to unwind.

The operation of the breaker is as follows: The boom 13 is swung into position to bring the hammer 19 directly above the rock to be broken, and the engineer then starts the engine so as to wind up the cable 18 and raise the hammer 19 to the free end of the boom. The engineer then releases the drum by means of the lever 25, and the hammer drops forcibly downward upon the rock. If one blow is not sufficient to break a rock, the hammer may be raised and dropped until the rock is broken, and as the boom 13 is vertically adjustable, and also is enabled to swing laterally with the post 10, it will be seen that the hammer may be quickly adjusted so as to be in proper position above the rock, and as there are no guides or anything else to interfere with its free descent it will deliver a very effective blow.

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

The combination, with a derrick having a laterally-swinging boom, of a hammer freely suspended from the free end of the derrick-boom, and a winding and releasing mechanism for the hammer-cable, substantially as described.

JNO. H. BLOOMER.

Witnesses:

WARREN B. HUTCHINSON,
EDGAR TATE.