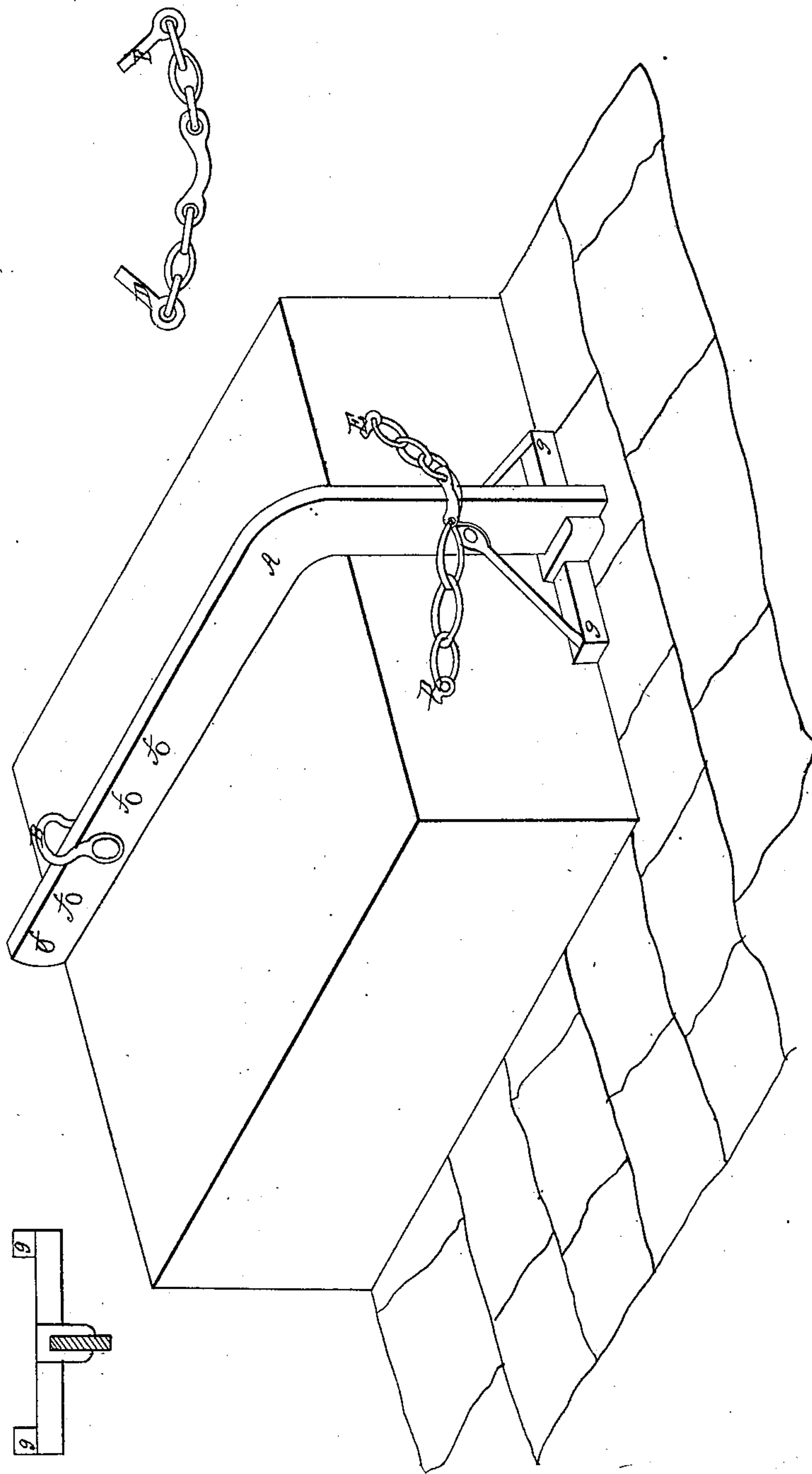


*T. Lidgerwood,*

*Grapple.*

*N<sup>o</sup> 7,172.*

*Patented Mar. 12, 1850.*



# UNITED STATES PATENT OFFICE.

THOMAS LIDGERWOOD, OF BROOKLYN, NEW YORK.

LEVER LEWIS.

Specification of Letters Patent No. 7,172, dated March 12, 1850.

*To all whom it may concern:*

Be it known that I, THOMAS LIDGERWOOD, of Brooklyn, in the county of Kings, in the State of New York, have invented a new and improved mode of lifting stone whose vertical sides may all but one be inaccessible and the tops fine cut and exposed, such as flagging or the columns of inverted arches, the altars and floors of docks, &c., without marring the tops or horizontal surfaces by the lewis-holes; and I do hereby declare the following is a full and exact description thereof.

The lever A, of the accompanying drawing is bent to an angle suitable to the shape of the stone to allow the clevis B, to be attached to it, at the point that will suspend the stone, so that its bed shall be inclined to the horizon at the same angle as the builds of the stone or stones upon which it is designed to lie when placed in the structure. The clevis B, can be shifted by means of the holes *f, f*, to give the stone any desirable inclination. The lever is confined to the stone by an ordinary lewis attached to one of its vertical sides. The one best adapted is the chain lewis, as shown by the plan, it consists of two pins connected by a chain, the pins having eyes forged in their heads to allow the links of the chain to be inserted. The lewis is fastened to the stone by two holes drilled into the stones about 21 inches asunder, and as near the size of the pin as possible, while at the same time it admits the same freely. The foot of the lever must be placed in the middle of the stone on the side it is to be lifted by, then place one of the pins in a hole and pass the chain around the outside, or back of the lewis, and insert the remaining pin in the other hole, apply the power to the clevis and the stone can be lifted. The chain lewis is shown in the drawing marked D, E. The foot *g, g*, is necessary to balance the stone and prevent its falling over sidewise, it is also fortified

with projecting frogs to be let into or under the stone as the case will admit, rendering the slipping upward of the lever impossible.

An apparatus of this sort was found to be very desirable, (owing to the peculiarity of its form) at the U. S. dry dock, Brooklyn, recently constructed. This improvement was used to lay all the front stones, except where the tops were covered by another stone, the coping was also laid. The average weight of the front stone being five tons. It proved perfectly successful laying over 5000 cubic yards of masonry without the loss of a single stone, and greatly preserving the beauty of the work.

I am aware that a bent lever with a foot resting upon one of the vertical sides of the stone, and attached to the stone by a bent bar which abuts against the opposite vertical side of the stone has been used, and that such an apparatus will not mar or disfigure the upper part or surface of the stone, but coping cannot be laid with such an apparatus unless the coping stones are equal in width to the width of the wall, and pavement cannot be laid at all.

My improvement therefore consists in attaching the lever to the same vertical side of the stone as that against which the foot rests; and

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

Attaching a bent lever having its foot resting against, or hooking under one of the vertical sides of a stone, to that same vertical side of the stone by any of the well known forms of lewises, substantially in the manner and for the purpose herein described.

THOMAS LIDGERWOOD.

Witnesses to signature of Thos. Lidgerwood:

A. H. WRIGHT,  
R. I. WRIGHT.