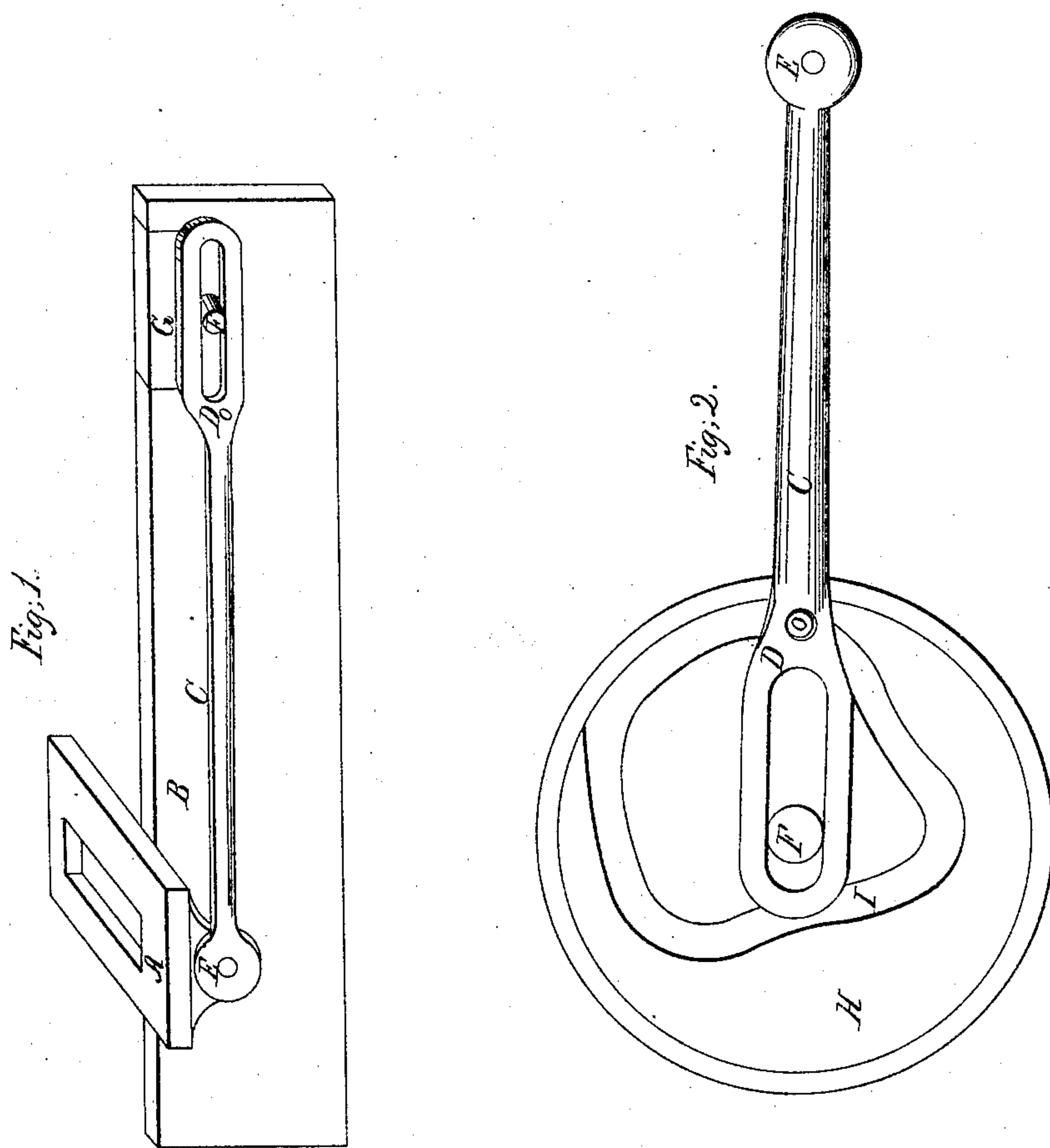


J. Watson,
Brick Machine,
N^o 55,432, Patented June 5, 1866.



Witnesses.

Albert Frauley
J. W. Shivers.

Inventor.

John Watson.

UNITED STATES PATENT OFFICE.

JOHN WATSON, OF BUFFALO, NEW YORK, ASSIGNOR TO ORAN W. SEELY,
OF SAME PLACE.

IMPROVEMENT IN BRICK-MACHINES.

Specification forming part of Letters Patent No. 55,432, dated June 5, 1866.

To all whom it may concern:

Be it known that I, JOHN WATSON, of the city of Buffalo, county of Erie, and State of New York, have invented a new and Improved Connecting Rod or Bar for Brick-Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 represents a geometrical perspective view of my improved connecting-rod, showing a part of the side of a brick-machine. Fig. 2 is a side elevation, showing the cam by which the connecting-rod receives its motion.

The nature of my invention consists in providing a connecting-rod for drawing the mold of a brick-machine, the said rod having a slot of sufficient length as to allow the mold to move by a reciprocating motion the distance required. The said slotted connecting-rod is fitted upon the end of the main shaft of the machine so as to work freely on the same, and which serves as a guide for that end of the connecting rod or bar opposite from the end that is attached to the mold.

It further consists in constructing a cam, in combination with the slotted rod, in such a manner that while the clay is being pressed the mold remains stationary, or nearly so, over the brick. The cam is so constructed as to give a backward motion to the mold while the press is being drawn together. The object and advantages of this backward motion are that when a uniform reciprocative motion is employed in drawing the mold the clay is drawn forward and scraped off, thus leaving a place in the back side of the mold that is not filled with clay, so that the brick pressed in this manner leaves an imperfect corner upon the back side of the brick.

Another great advantage in my invention is that from the peculiar motion of the cam it allows the mold to remain stationary, or nearly so, while the clay is deposited in the press and while the pistons have receded to the greatest distance from each other.

It has for a long time been the great desideratum of inventors and those engaged in manufacturing brick to obtain some means to produce the proper reciprocating motion to the mold, so that it might remain stationary and directly between the two pistons when they

had receded to the greatest distance from each other for the purpose of receiving the clay, and to be in the same position at the nearest approach to each other and while the clay is receiving the action of the pistons, and also to move or change its position at the proper time, that the brick may be ejected from the machine.

It will be observed that the troubles and difficulties heretofore encountered by the uniform reciprocating motion are obviated and overcome by my invention.

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

Letters of like name and kind refer to like parts in each of the figures.

B represents the side of a brick-machine to which my improved connecting-rod is attached.

A is the sliding top of the mold, which has an irregular reciprocating motion from the connecting-rod C. The said connecting-rod C may be made of wood, iron, or any other suitable material, and is provided with a slot, D, into which passes the end of the shaft F, which is the main driving-shaft of the machine, but is no part of this invention, therefore is not shown. The end of the said shaft serves as a guide to that end of the said connecting-rod C. A lug or pin may also be substituted in the side of the frame B, in place of the end of the shaft, to serve as a guide.

G is the cap of the journal-box of the main shaft F.

E is the connecting-joint of the connecting-rod to the sliding mold A.

H is the cam-wheel, or the wheel in which the cam-groove I is made, the said wheel being rigidly secured upon the shaft F.

O is a pin or lug firmly secured to the connecting-rod C. The said pin or lug works snugly and freely in the cam-groove I, which, as the cam revolves, gives a suitable and proper motion to the sliding mold A.

It may here be observed that the connecting-rod may also be worked by teeth or cogs upon the inside of the slot in the connecting-rod meshing into corresponding cogs or teeth upon the end of the shaft, but which are not shown in the drawings.

It will be understood that the slot D in the connecting-rod C is of sufficient length to allow

the required reciprocating motion of the connecting-rod for drawing the mold of a brick-machine either by a cam or other equivalent means.

I do not claim, broadly, a slotted connecting rod or arm, as it is used in a variety of machines; but

What I do claim, and desire to secure by Letters Patent, is—

The combination of the slotted rod D with the cam I, when used to give an irregular reciprocating motion to the molds of a brick-machine, for the purposes and substantially as herein described.

JOHN WATSON.

Witnesses:

ALBERT FRANK,
CYRUS ROGERS.