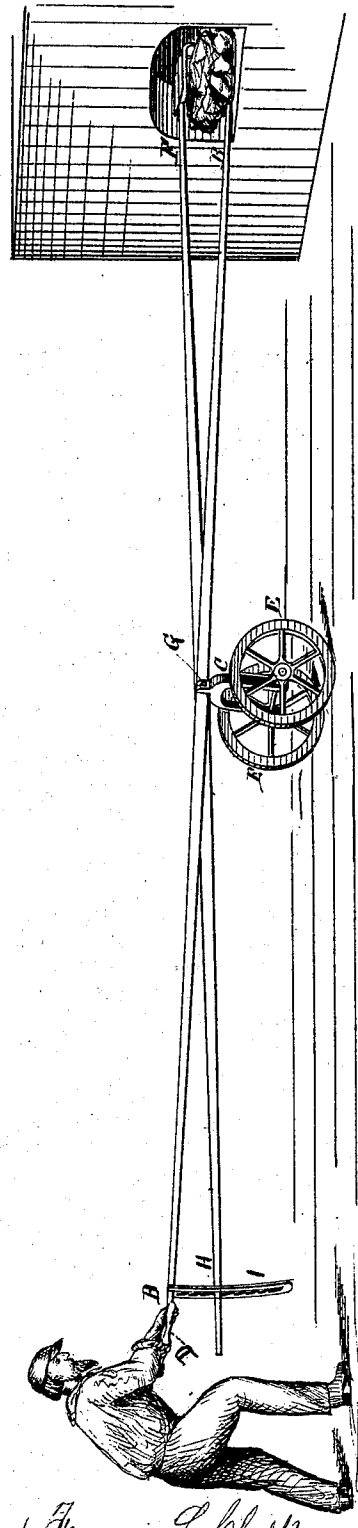
J. H. CONNELLY.

Apparatus for Drawing Coke from Ovens.

No. 149,836. Patented April 21, 1874.



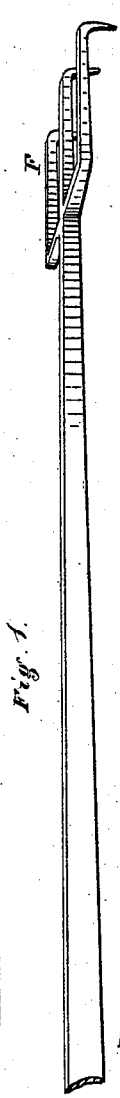


Fig. 1.

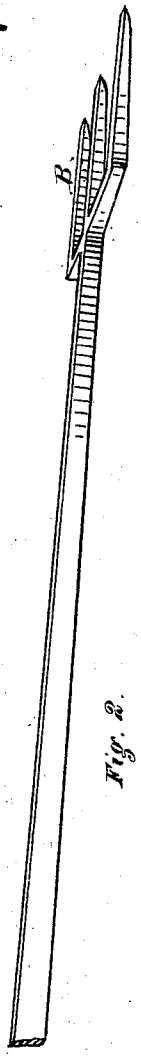


Fig. 2.

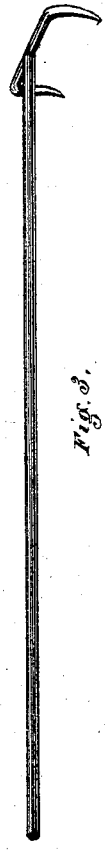


Fig. 3.

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UNITED STATES PATENT OFFICE.

JOSEPH H. CONNELLY, OF NEW BRIGHTON, PENNSYLVANIA.

IMPROVEMENT IN APPARATUS FOR DRAWING COKE FROM OVENS.

Specification forming part of Letters Patent No. **149,836**, dated April 21, 1874; application filed March 31, 1874.

To all whom it may concern:

Be it known that I, JOSEPH H. CONNELLY, of the town of New Brighton, in the county of Beaver and State of Pennsylvania, have made certain Improvements in Coke-Tongs for Drawing Coke from the Ovens, of which the following is a specification, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view of my tongs in operation; Fig. 2, a view of the hook and fork part of the tongs on an enlarged scale; and Fig. 3, a view of the coke-hook in common use.

The object of my invention is to enable the coke-burner to remove the coke from the oven without wetting it down and cooling the oven. My invention consists in a long-handled hook and fork, forming a pair of tongs, mounted on a carriage, with which the coke is grasped and removed from the oven; or a long-handled hook mounted in a similar carriage.

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

Fig. 1 shows a coke-oven and a workman drawing the coke from the oven with my tongs. B is the forked part of the tongs, and should be twenty or twenty-five feet long. It is secured rigidly to the iron arch C, at or near the center, that it may be balanced. The cross-handle D is attached to the end of the fork for greater convenience in handling the machine. The arch C is mounted on strong iron wheels E E. The hook F is also made of iron, of the shape shown, and turns on the pin G. The end H of the hook G passes through the frame I, attached to the fork B. One side of this frame is notched, and in these notches the handle of the hook catches, as the tongs are closed, on the mass of coke to be removed, thereby preventing the tongs from opening.

The hook may be used alone, mounted on wheels, and the coke broken up and drawn out with it, as is now done with the short-handled hook shown in Fig. 3.

When used, the tongs are inserted into the oven open; the fork forced under the coke a sufficient distance to pry up a load. The hook is then forced down into the top of the coke, and secured in that position by slipping the handle into one of the notches in the frame I. The workman then grasps the cross-handle D, and, by slightly surging the tongs up and down, and from side to side, detaches the mass inclosed between the fork and hook, which is then withdrawn and dropped into an iron car, where water is thrown on it to cool it.

The advantages of my tongs or hook are, that the workman need not be exposed to the heat; that the coke, being wetted down in the open air, contains less sulphur; and that the ovens will last longer, as the introduction of water into the ovens to cool them down when at a white heat cracks and springs the walls.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. The hook F and fork B, arranged as described, in combination with the carriage C E, constructed substantially as and for the purpose described.

2. A hook or tongs mounted on wheels, for drawing coke from coke-ovens, constructed substantially as described.

JOS. H. CONNELLY.

Witnesses:

FRANCIS L. CLARK,

ALBERT DELIUS.