

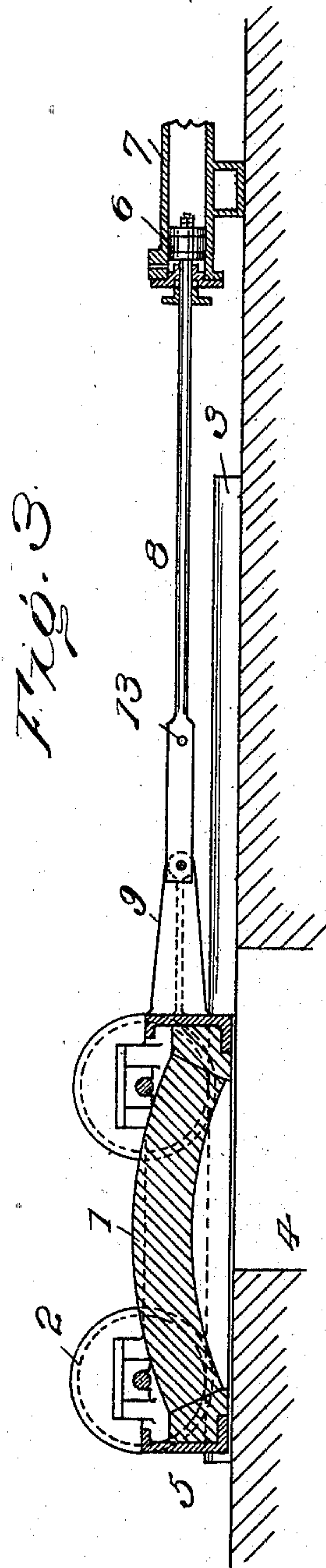
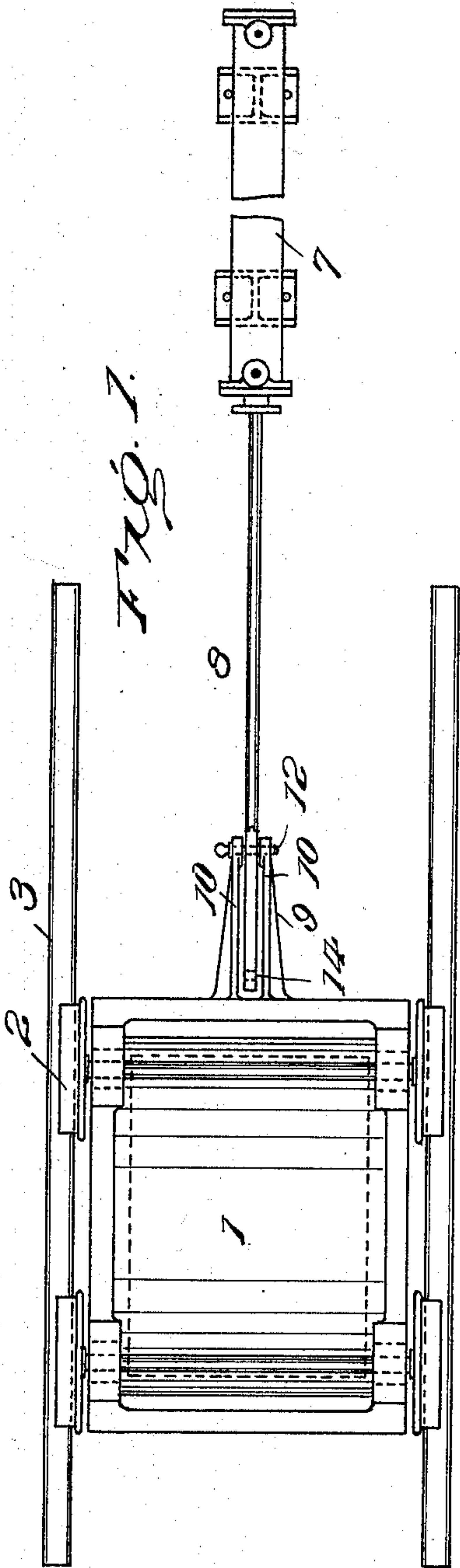
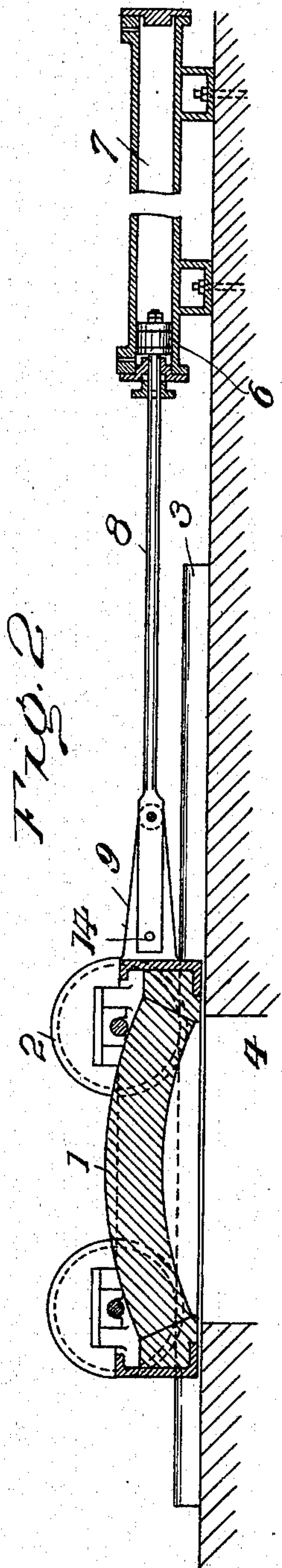
No. 681,115.

Patented Aug. 20, 1901.

L. H. GORDON.  
SOAKING PIT COVER.

(Application filed June 25, 1901.)

(No Model.)



WITNESSES:

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Att'y.



# UNITED STATES PATENT OFFICE.

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## SOAKING-PIT COVER.

SPECIFICATION forming part of Letters Patent No. 681,115, dated August 20, 1901.

Application filed June 25, 1901. Serial No. 65,992. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS H. GORDON, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain  
5 new and useful Improvements in Soaking-Pit Covers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it apper-  
10 tains to make and use the same.

This invention relates to that class of blank-heating furnaces known as "soaking-pits," wherein blanks or ingots are stood on end while being heated.

15 More or less time and difficulty are involved in repairing the bottoms of soaking-pits, and as this is required two or three times in twenty-four hours it is necessary that the work be capable of accomplishment  
20 in the shortest possible space of time and with the least annoyance to the repairer. Heretofore it has been possible to repair only one side of the bottom, while the cover was allowed to remain partly over the pit as a  
25 protection to the workman, its entire removal being necessary to make bottom on the other side, and this is objectionable because of the intensity of the heat. The cover is usually  
30 moved back and forth by the reciprocation of a piston, and it is desirable to limit the latter, so that the full stroke will exactly move the cover into position to close the pit independent of the skill of the operator, since  
35 otherwise the casing surrounding the cover may be burned out if the movement be too far forward.

The object of this invention is to provide, in connection with actuating means the full stroke of which will so move the cover as to  
40 completely open and close the pit, means to allow the cover to be moved forward, so that the pit-bottom may be repaired on both sides from opposite points without entirely removing the cover from the pit.

45 The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a soaking-pit cover and its operating mechanism. Fig. 2 is a longitudinal  
50 sectional view. Fig. 3 is a similar view

showing the cover positioned to permit of making the bottom at the left-hand side of the pit.

Referring to the drawings, 1 designates the cover; 2, the supporting-wheels; 3, the rails therefor, and 4 the soaking-pit, a portion only of which latter is shown. The body of the cover is composed of suitable refractory material and a surrounding casing or casing 5. The cover is moved back and forth over and away from the pit by the reciprocation of a piston 6 in a cylinder 7. The rod 8 of this piston is so connected to the cover that the latter in its normal outward position  
55 under the full stroke will fit directly above pit 4, thus protecting the surrounding casing 5 from injury by the direct action of the heat. In making bottom the cover is either entirely removed or only partly withdrawn rear-  
60 wardly. In the former instance the heat is so intense as to render the repairing of the bottom either impossible or very difficult, while when the cover is permitted to remain partly over the pit the operator can make  
65 bottom only on the right-hand side—that is, the side nearest the piston-cylinder.

To permit the operator to work the bottom at the left-hand side and at the same time be shielded or protected by the cover standing  
80 partly over the pit, I provide casing 5 with a bracket 9, formed with a central space between two parallel sides 10. A removable bolt 12, inserted through these sides and an opening 13 in piston-rod 8, limits the normal  
85 outward movements of the cover, as seen in Fig. 2; but when it is desired to work the bottom at the left-hand side the bolt 12 is withdrawn, and the piston being moved backward until a second hole 14 in the extreme  
90 end of the piston-rod is brought in line with the bolt the latter is inserted through said hole, so that the forward movement of the piston will position the cover, as shown in Fig. 3, leaving a space between the cover and  
95 the pit sufficient to permit of repairing the bottom toward the left-hand side. When the bottom-maker completes his work, the piston is actuated sufficiently to permit of again coupling its rod to bracket 9 by the insertion  
100 of bolt 12 through hole 13. When this connection is made, the cover cannot slide too



far forward and no danger can arise from in-  
attention on the part of the pulpit-boy. It  
is obvious that any number of holes may be  
made in the piston-rod. It is essential, how-  
5 ever, that the normal connection between the  
rod and the cover be such that the latter will  
not ordinarily be moved too far forward, and  
yet the connection must be capable of ready  
adjustment to permit of an extra forward  
10 throw when it is necessary to make bottom.  
In repairing the bottom at the right-hand or  
inner side the workman stands at what may  
be termed the "left-hand" or outer side,  
while in repairing the bottom at the left-hand  
15 side he stands at the right or inner side and  
works through the opening formed by the ad-  
ditional movement imparted to the cover.

The advantages of my invention are appar-  
ent to those skilled in the art. It will be  
20 noted also that by securing the end of the  
piston-rod between the parallel sides of the  
bracket not only is the extra length of the  
rod held out of the way, but lateral deflection  
is prevented.

25 I claim as my invention—

1. The combination with a soaking-pit, and  
a cover therefor, of means for moving the

cover comprising a shifting rod, and means  
for connecting said rod to the cover at any  
one of a plurality of points, as set forth. 30

2. The combination with a soaking-pit, and  
a cover therefor, of means for operating the  
cover comprising a longitudinally-movable  
rod, a bracket extending from the cover, and  
means for connecting the rod to the bracket 35  
at one of a plurality of points, substantially  
as set forth.

3. The combination with a soaking-pit, and  
a cover therefor, of means for actuating the  
cover comprising a piston having its rod 40  
formed with a plurality of holes, a bracket  
extending from the cover having parallel sides  
between which the end of the rod is designed  
to fit, and a removable bolt for uniting the  
rod to the bracket at any one of a plurality 45  
of points, substantially as set forth.

In testimony whereof I have signed this  
specification in the presence of two subscrib-  
ing witnesses.

LOUIS H. GORDON.

Witnesses:

C. W. COFFMAN,  
A. K. McMILLEN.