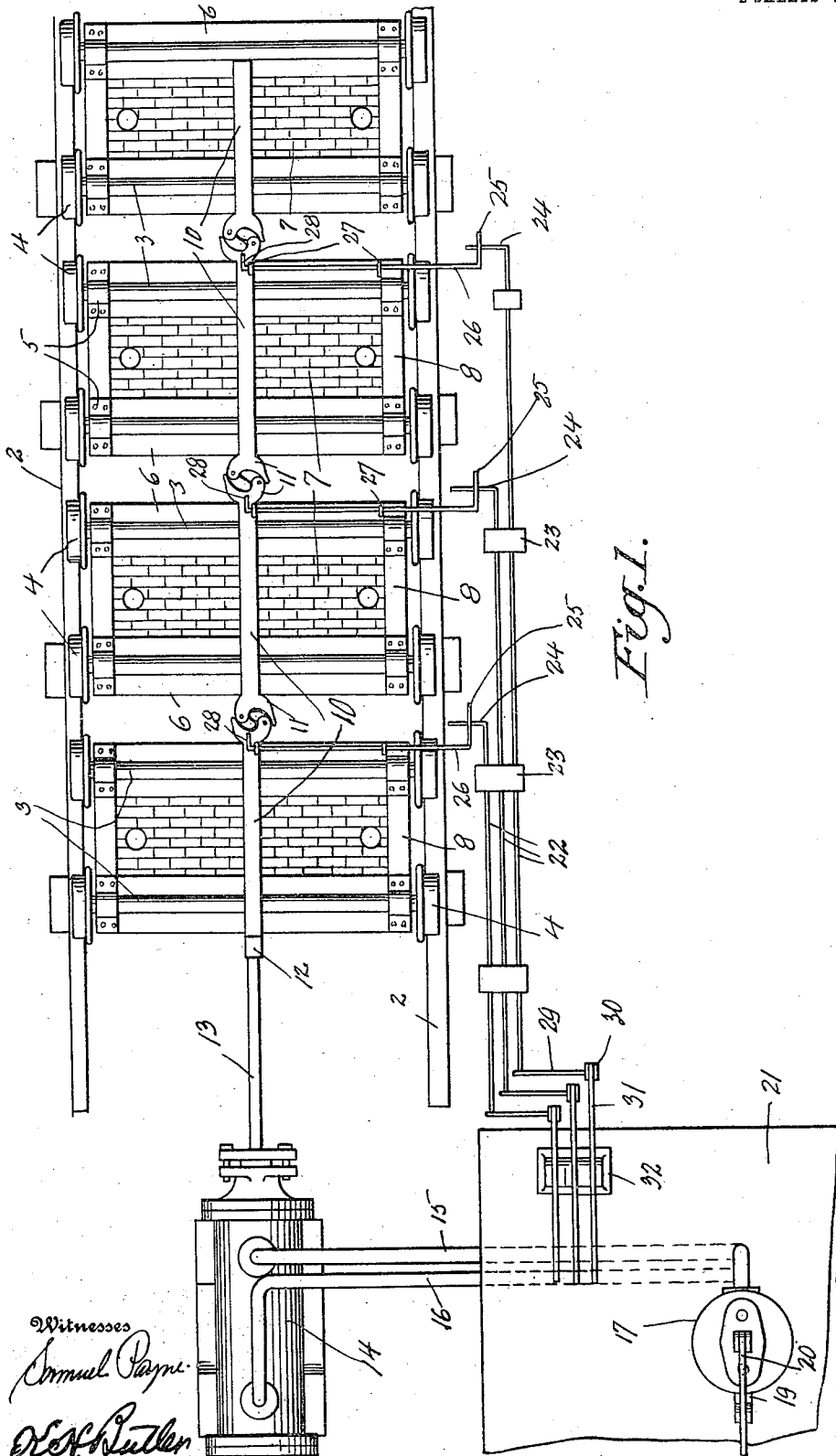


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Patented Feb. 8, 1910.

2 SHEETS—SHEET 1.



Witnesses
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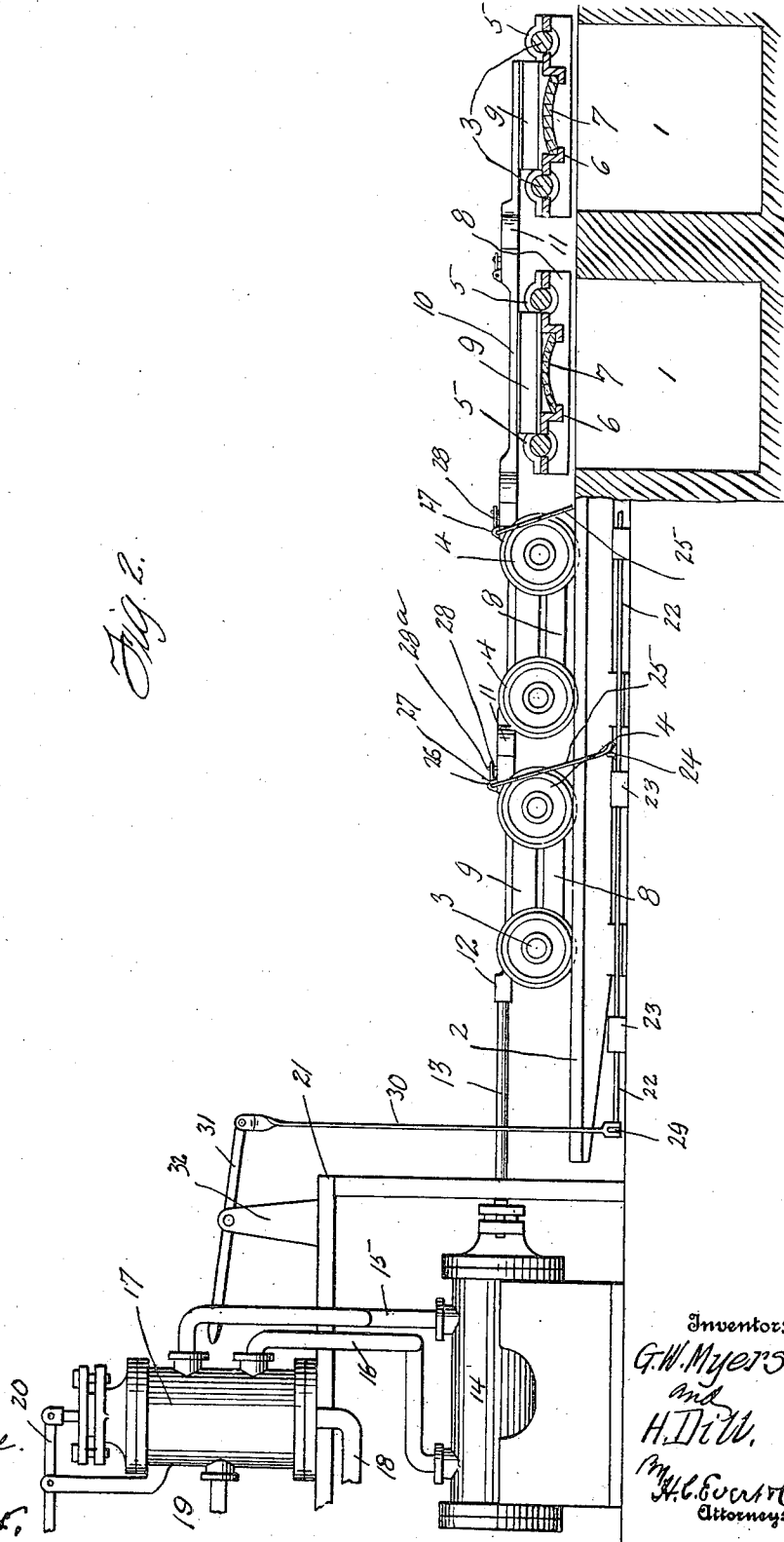
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Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE W. MYERS AND HARRY DILL, OF DUQUESNE, PENNSYLVANIA.

SOAKING-PIT FOR MANUFACTURE OF STEEL.

948,932.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed July 2, 1909. Serial No. 505,738.

To all whom it may concern:

Be it known that we, GEORGE W. MYERS and HARRY DILL, citizens of the United States of America, residing at Duquesne, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Soaking-Pits for Manufacture of Steel, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to soaking pits, and the invention has for its object to provide a novel apparatus for automatically moving and manipulating covers or inclosures of soaking pits, thus facilitating the operations of a workman attending to the pits and the contents thereof.

Another object of the invention is to provide a simple and inexpensive apparatus that will occupy a comparatively small space in proximity to a soaking pit without interfering with the placing and removal of ingots or other material in or about the soaking pit.

With the above and other objects in view which will more readily appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be hereinafter described and then claimed.

In the drawings: Figure 1 is a plan of our improved apparatus, and Fig. 2 is a side elevation of the same, partly broken away and partly in section.

In the drawings, 1 denotes soaking pits and at the ends of these pits are arranged parallel rails 2, constituting a track for a plurality of trucks, each truck comprising axles 3 and flanged wheels 4. Suspended from the axles 3 by hangers 5 are longitudinal frames 6 adapted to support an arched cover or closure 7, which is preferably made of fire brick or a non-fusible material. The hangers 5 are connected together by straps 8 and the frames 6 intermediate the ends thereof are connected by straps 9. The straps 9 support draw bars 10, and the ends of these bars are provided with coupler heads 11 of the ordinary and well known type, for instance, "Janney" couplers.

As shown in the drawings, a series of soaking pits are covered or closed by a series of closures carried by trucks, and in order that these trucks can be manipulated by an operator located at a remote point relative to the soaking pits, a hydraulic cylinder is

used, together with a valve for controlling the admission and exhaust of air or steam to and from said cylinder, also an automatic uncoupling device.

The couplers 11 in connection with the outer ends of the two end trucks are dispensed with, and the draw bar 10 of one of said trucks is connected, as at 12, to the piston rod 13 of a hydraulic cylinder 14 located in proximity to the soaking pits at one end thereof, whereby when the piston rod is actuated through the medium of air or steam, the trucks that are coupled together, will be moved in unison in one direction or the other.

The hydraulic cylinder 14 is connected by pipes 15 and 16 to a valve 17, this valve having a discharge pipe 18 and an air or steam inlet pipe 19. Through the medium of an operating lever 20 the admission and exhaust of steam or air to and from the valve 17 is easily and quickly controlled by an operator upon an elevated platform 21 located contiguous to the soaking pits for supporting the valve 17, this elevated platform allowing an operator to observe the movements and operations in and around the soaking pits.

The couplers 11 are adapted to automatically close when two trucks are pushed toward one another, but in order that two or more trucks can be separated I use a novel uncoupling device which is operated from the elevated platform 21. This uncoupling device comprises a plurality of longitudinal rock shafts 22 journaled in bearings 23 located at one side of the soaking pits. The forward ends of the rock shafts 22 are provided with cranks 24 for engaging the cranks 25 and rock shafts 26, these shafts being journaled in bearings 27 located upon each truck. The opposite ends of the shafts 26 are provided with cranks 28, which are connected to the ordinary locking pins 28^a of the couplers 11.

The rear ends of the shafts 22 are provided with cranks 29 having the ends thereof pivotally connected, as at 30, to operating levers 31, fulcrumed upon a bearing 32 carried by the elevated platform.

When an operator raises one of the levers 31, one of the cranks 29 is lowered to rock one of the shafts 22 and elevate the crank of said shaft, and when said crank is elevated, it rocks one of the shafts 26 and raises the locking pin 28^a of the coupler, whereby two of the trucks can be separated.

With sufficient room between one of the soaking pits and the hydraulic cylinder 14 for one of the trucks, the trucks can be easily shifted, whereby the interior of one soaking pit can be easily reached, while the other soaking pits are maintained in a closed position.

It is thought that the operation and utility of the apparatus will be fully understood, and while in the drawings there is illustrated a preferred embodiment of our invention, it is to be understood that the structural elements thereof can be varied or changed without departing from the spirit of the invention.

Having now described our invention what we claim as new, is:—

1. In an apparatus for shifting the closures of soaking pits, the combination with a hydraulic cylinder, and a valve controlling the operation of said cylinder, of trucks adapted to be moved by said hydraulic cylinder, soaking pit closures carried by said trucks, couplers connecting said trucks, rock

shafts supported by said trucks for releasing said couplers, rock shafts for actuating the first mentioned rock shafts, and operating levers in proximity to said valve for moving the last mentioned rock shafts whereby one or more of said trucks can be shifted to open position.

2. In an apparatus for shifting the closures of soaking pits, a plurality of trucks, soaking pit closures carried by said trucks, couplers detachably connecting the said trucks together, rock shafts for releasing said couplers whereby one or more of said trucks can be shifted to open position, a crank on each of said shafts, means engaging with the cranks for operating the rock shafts, and means for shifting the trucks.

In testimony whereof we affix our signatures in the presence of two witnesses.

GEORGE W. MYERS.
HARRY DILL.

Witnesses:

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