(No Model.)

W. H. FREDERICKS.

APPARATUS FOR TRANSFERRING PIG IRON FROM ITS BED.

No. 380,625. Patented Apr. 3, 1888.

Fig. 1.

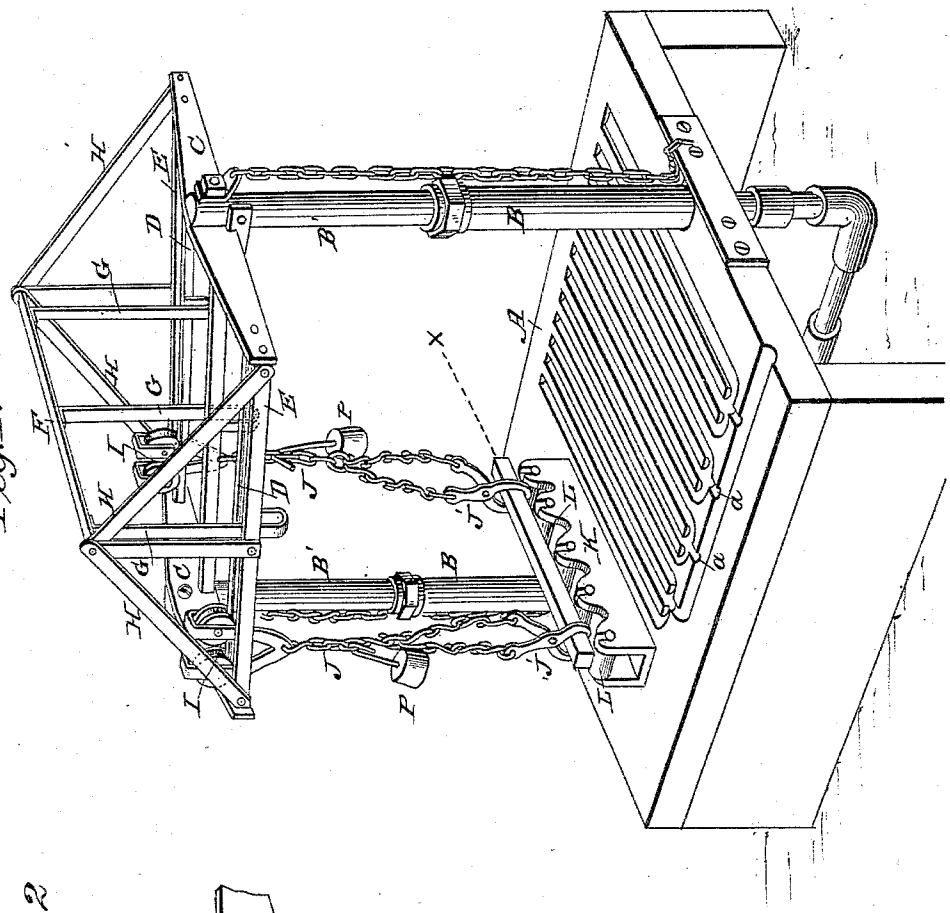
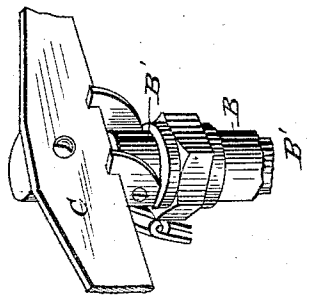


Fig. 2.



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WILLIAM H. FREDERICKS, OF JOHNSTOWN, PENNSYLVANIA.

APPARATUS FOR TRANSFERRING PIG-IRON FROM ITS BED.

SPECIFICATION forming part of Letters Patent No. 380,625, dated April 3, 1888.

Application filed August 24, 1887. Serial No. 247,786. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. FREDERICKS, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Transferring Pig-Iron from its Bed, of which the following is a specification.

The object of my invention is to provide an apparatus for taking the pig-iron from the bed in which it is cast and transferring it to the breaker for reducing it to proper lengths; and it consists in the peculiar construction and combination of parts, hereinafter described and claimed, whereby the labor and time of handling are greatly reduced, less space required in the casting-house, and a saving in sand effected.

Figure 1 is a perspective view of the entire apparatus just after having transferred a section of pig-iron to the rollers to be transferred to the breaker. Fig. 2 is a detail in perspective, showing the connection of the cross-heads to the movable section of the lifting-jacks.

In the drawings, A represents the bed of sand in which the pigs are cast. In this bed the molds or troughs are arranged in groups of three, each of which has a common neck, *a*, for the inflow of the metal. At each end of the bed there are vertically-arranged lifting-jacks. These may be hydraulic jacks constructed with a cylinder, B, and telescopic plunger B′, as shown, or may be of any other mechanical construction. To the tops of the movable sections of these jacks are attached horizontal cross-heads C, to which are connected the parallel track-rails D D, running from one cross-head to the other.

E represents horizontal girders; F, a cross-bar; G, hangers, and H inclined bars, which are firmly connected together and form a strong truss-frame for the weight suspended upon the rails D.

I represents wheeled-trucks or carriages which run upon the rails and have attached thereto suspending-chains J, with tongs or gripping-hooks J′ adapted to seize the pig as it lies in its bed.

At one end of the bed is disposed a frame, K, provided with a series of rollers, L, and off to one side, at about the point *x*, is the location of the breaker, which serves to break up the pig into proper lengths, and to which point the pig is pushed over the rollers L. The work to be done by my apparatus is to raise the long pigs from their bed of sand and transport them to the rollers L, ready to be pushed along to the breaker, and for this purpose the tongs or gripping-hooks are connected to the opposite ends of a pig. The track-rails are then raised by means of the jacks, and the wheeled trucks with the suspended pig are then run along their tracks to a position above the rollers L, and the jacks then lowered to deposit the pig on said rollers.

P are weights to steady the trucks on the return movement, when unloaded.

Having thus described my invention, what I claim as new is—

1. The combination of lifting-jacks B B′, an elevated track-frame mounted upon the movable sections of the jacks and bearing rails D, wheeled-trucks I, running upon said rails, and suspending chains and tongs J J′, connected to said trucks, said devices being adapted for use in connection with a bed for casting pig-iron, substantially as and for the purpose described.

2. The combination of a series of rollers, L, lifting-jacks B B′, an elevated track-frame mounted upon the movable sections of the jacks and bearing rails D, wheeled trucks I, running upon said rails, and suspending chains and tongs J J′, connected to said trucks, said devices being adapted for use in connection with a bed for casting pig-iron, substantially as and for the purpose described.

WILLIAM H. FREDERICKS.

Witnesses:
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