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TRAVELING SUPPORT FOR KILNS

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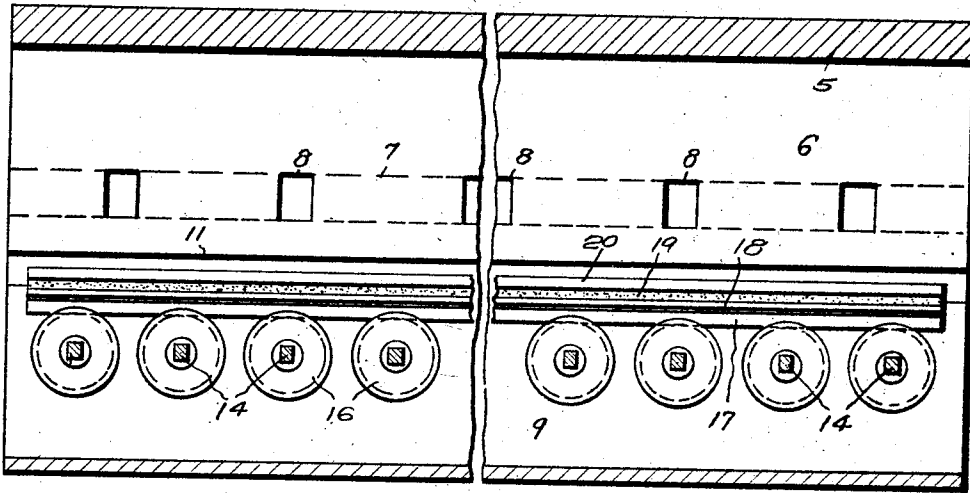


FIG. 1.

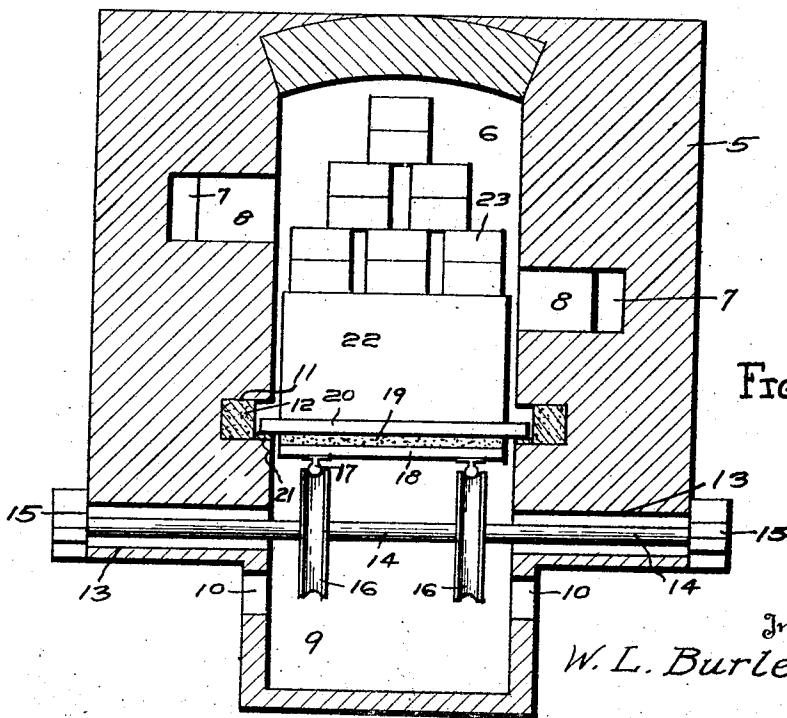


FIG. 2.

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# UNITED STATES PATENT OFFICE.

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TRAVELING SUPPORT FOR KILNS.

Application filed January 15, 1925. Serial No. 2,672.

*To all whom it may concern:*

Be it known that I, WILSON L. BURLEY, a citizen of the United States, residing at Crooksville, in the county of Perry and State of Ohio, have invented certain new and useful Improvements in Traveling Supports for Kilns, of which the following is a specification.

My invention relates to improvements in kilns for burning earthenware.

An important object of the invention is to provide reliable and simple means for supporting the table, as the same is passed through the chamber of the kiln.

A further object of the invention is to provide means whereby the supporting means for the table is protected from the action of the heated gases.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a central vertical longitudinal section through a kiln embodying my invention, parts in elevation, and,

Figure 2 is a transverse section taken on line 2—2 of Figure 1.

The kiln embodies a kiln casing 5, formed of refractory material, having a longitudinal chamber 6. The side walls of this chamber have longitudinal flues 7, leading to transverse flues 8, which discharge into the chamber 6. These longitudinal and transverse flues are similar to the flues 20, 25, and 26, shown in my co-pending application for kiln for burning earthenware, Serial No. 2671, filed January 15, 1925. I also employ fire box or boxes, discharging into the upper portion of the chamber 6, as shown in connection with my said co-pending application. These fire boxes discharge into the chamber above the longitudinal grooves to be described.

The chamber 6 leads at its bottom into a longitudinal pit 9, having air circulating openings 10, in the side walls thereof. The side walls of the casing 6 are provided in their lower portions with interior longitudinal grooves 11, containing asbestos 12, or other heat insulating material.

The side walls of the kiln casing 5 are also provided with transverse openings 13,

through which project transverse shafts 14, spaced therefrom. These shafts have their outer ends journaled in bearings 15, arranged exteriorly of the casing. Arranged within the lower end of the chamber 6 are grooved wheels 16, rigidly mounted upon the shafts 14, and receiving within their grooves rails 17, which are rigidly secured to the bottom of a rigid table or support 18. This table has a layer of asbestos 19, or other heat insulating material upon its upper surface, upon which is arranged a slab 20, of refractory material. This slab has its longitudinal edges projecting into the grooves 11, in close relation to the asbestos packing 12, and I preferably provide asbestos packing 21, attached to the bottom walls of these grooves 11, adjacent to the slab 20. It is thus seen that by having the edges of the slab 20 projecting into the grooves 11, that a shell is provided for preventing the heated gases from passing into contact with the wheels 16 and associated elements.

In the operation of this form of furnace, I preferably arrange hollow sagger blocks 22, upon the slab 20, and the earthenware articles 23 are supported upon these sagger blocks. The table 20 is then moved longitudinally through the kiln casing 5, and the articles first pass into the pre-heating zone, and then into the heating or baking zone, and finally to the cooling zone.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of my invention or the scope of the subjoined claim.

Having thus described my invention, I claim:

A kiln chamber provided in its side walls with longitudinal grooves, the kiln chamber being continuous from points above and below the grooves, the bottom of the chamber continuing in a pit, said pit having side walls provided with air circulating openings and the chamber having transverse openings above the air circulating openings and beneath said grooves, said transverse openings leading into the pit and adapted to receive cooling air therefrom, transverse shafts extending through the transverse openings,

wheels carried by the transverse shafts, a table arranged beneath the transverse grooves and above the wheels, rails secured to the lower surface of the table and engaging the wheels, a refractory slab mounted upon and insulated from the table and projecting outwardly beyond the same and entering the grooves, and heat insulating material within the grooves, the grooves and slab forming seals. 10

In testimony whereof I affix my signature.

WILSON L. BURLEY.