G. J. STEVENSON.

DRYING APPARATUS.

APPLICATION FILED OCT. 11, 1917.

1,322,209.

Patented Nov. 18, 1919.

3 SHEETS—SHEET 1.

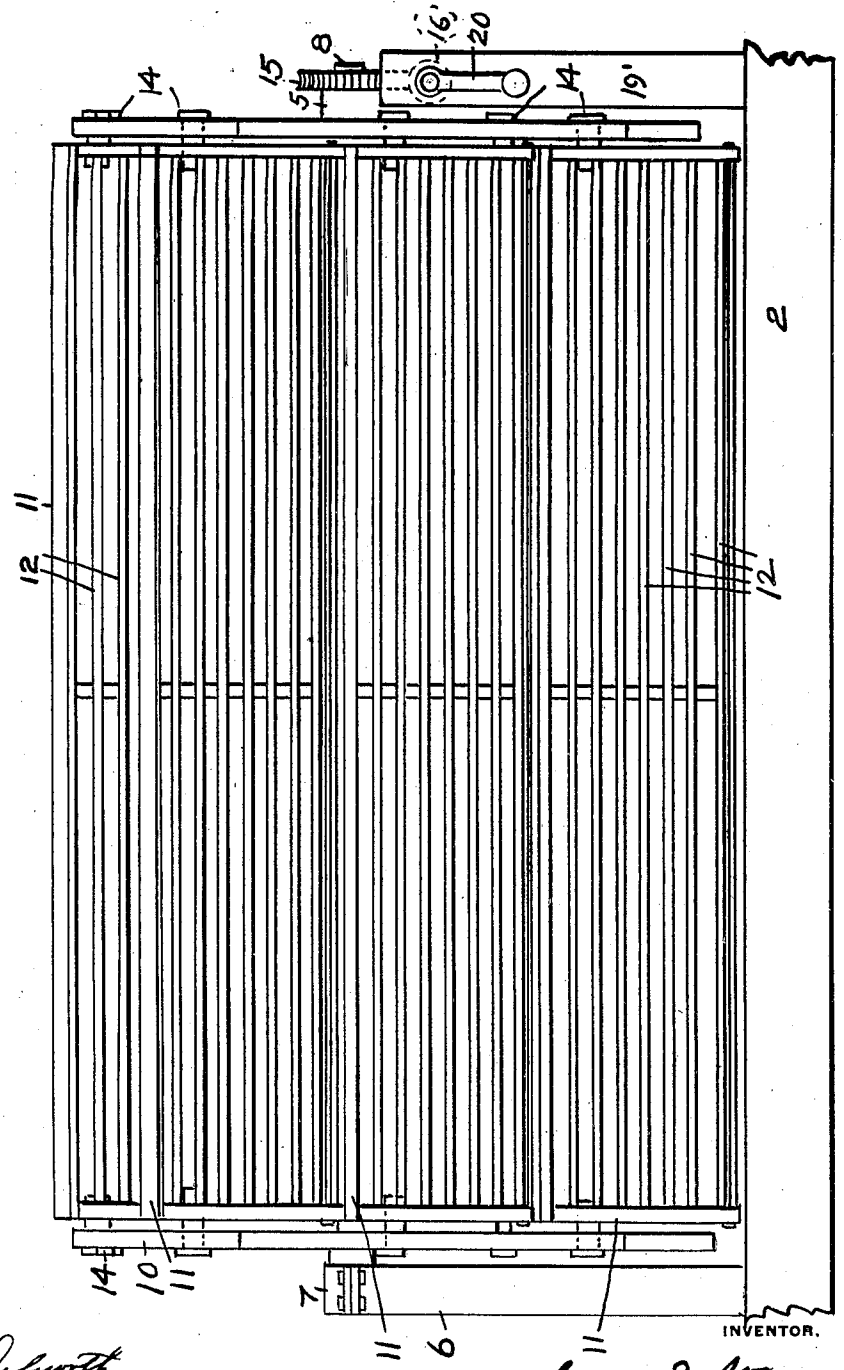


Fig. 1.

WITNESS

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3 SHEETS—SHEET 2.

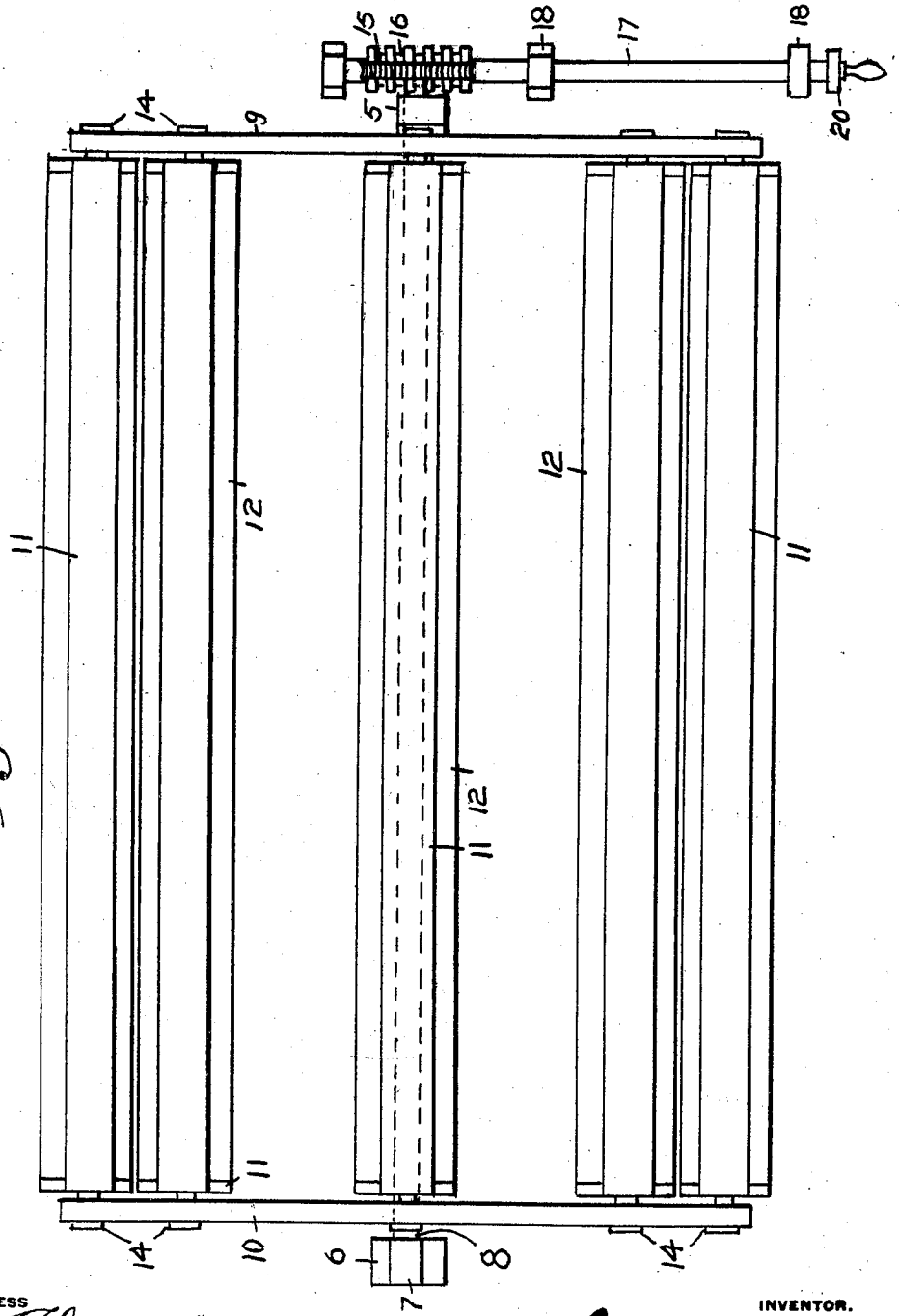


Fig. 2

WITNESS

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3 SHEETS—SHEET 3.

Fig. 3

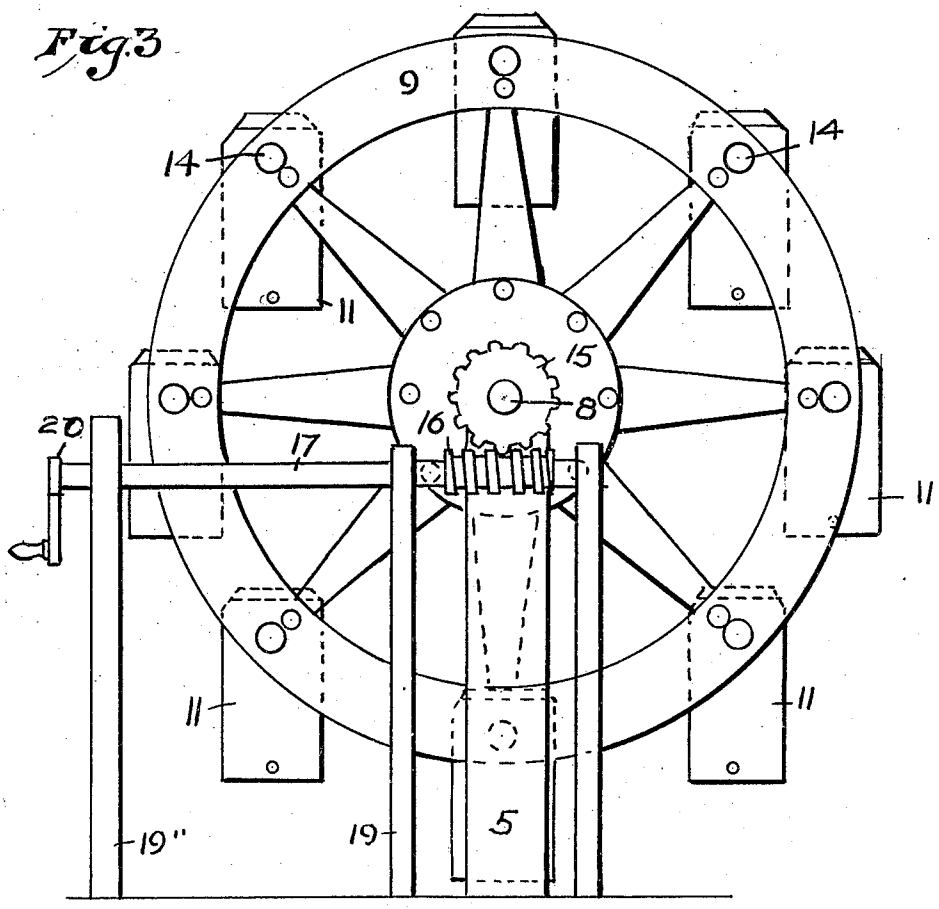


Fig. 4

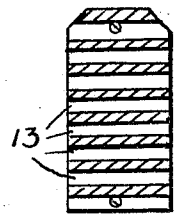
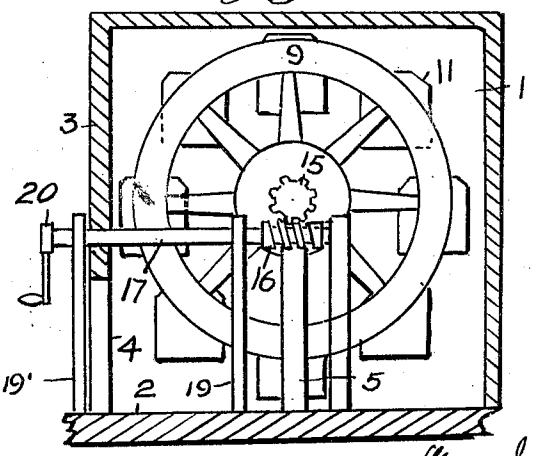


Fig. 5



WITNESS

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UNITED STATES PATENT OFFICE.

GEORGE J. STEVENSON, OF EAST LIVERPOOL, OHIO.

DRYING APPARATUS.

1,322,209. Specification of Letters Patent. Patented Nov. 18, 1919.

Application filed October 11, 1917. Serial No. 195,918.

To all whom it may concern:

Be it known that I, GEORGE J. STEVENSON, a citizen of the United States of America, residing at East Liverpool, county of Columbiana, and State of Ohio, have invented certain new and useful Improvements in Drying Apparatus, of which the following is a specification.

This invention relates to drying apparatus for use in connection with the manufacture of pottery-ware and has for its object to provide, in a manner as hereinafter set forth, means for supporting and shifting the articles to be dried within and through a drying room thereby overcoming the laborious method, now in general use, of transporting the articles manually to and mounting them on stationary shelves or racks within the room.

A further object of the invention is to provide a drying apparatus for pottery-ware, in a manner as hereinafter set forth, whereby the articles to be dried can be shifted from the entrance of the drying room and returned to such point in a dried state without the necessity of the operator entering the drying room.

A further object of the invention is to provide, in a manner as hereinafter set forth, a drying apparatus for use in the manufacture of pottery-ware whereby the drying of the articles is had in a more expeditious and a less laborious manner than the present method now employed.

Further objects of the invention are to provide a drying apparatus for the purpose set forth which is simple in its construction and arrangement, strong, durable, efficient and convenient in its use, and comparatively inexpensive to install.

With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts, as hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claim hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:—

Figure 1 is a front elevation of a drying apparatus in accordance with this invention.

Fig. 2 is a top plan view.

Fig. 3 an end view.

Fig. 4 a transverse section through one of the swinging carriers of shelves.

Fig. 5 is a cross section through one end of a drying room showing the adaptation therewith of a drying apparatus in accordance with this invention.

Referring to the drawings in detail 1 denotes a drying room, 2 the floor thereof and 3 the front wall thereof has an entrance opening 4 for the purpose of loading and unloading.

Supported upon the floor 2, is a pair of uprights 5, 6, each having a bearing 7, at its upper end.

Mounted on the bearings 7, is a rotatable shaft 8, to which is secured a drum rotating with the shaft. The drum consists of a pair of heads 9, 10, each in the form of an annulus surrounding each end of and connected to the shaft 8 and having interposed therebetween a series of compartment carriers each formed of an elongated rectangular frame 11, provided with closely arranged longitudinal flat partitions 12, to form a series of narrow compartments 13, for the reception of the articles to be dried whereby the articles are supported with the drum during the rotating thereof.

Each of the heads 9, 10, is provided with a series of inwardly extending stub shafts 14, which project through the ends of the frames 11, and form suspension means for the carriers upon and which swing or pivot during the rotating movement of the shaft 8, the latter carrying the drum therewith.

The shaft 8, is rotated by a worm-pinion 15, secured thereon exterior of the head 9, meshing with the pinion 15, is a worm 16, carried on the inner end of a driving shaft 17, supported in bearings 18 secured to the upper ends of uprights 19, 19′, mounted on the floor 2, exterior of the head 9. The shaft 17, is disposed at right angles to the shaft 8, and is of a length to project outwardly beyond the entrance opening 4. The shaft 17, may be operated by any suitable means, preferably manually by a crank and handle 20 secured on the outer end of said shaft 17, and by this arrangement the drum can be rotated exterior of the drying room 1.

The drum is arranged within the room 1, so that during the rotating thereof the carriers will successively position themselves to

be loaded with the articles to be dried or to enable the dried articles to be removed therefrom.

The diameter of the drum is such that one complete revolution thereof, when intermittently operated, will allow of sufficient time for the articles upon the carrier to thoroughly be dried.

What I claim is:—

A drying apparatus for use in the manufacture of pottery ware comprising the combination of a drying room having the lower portion of its front wall provided with an opening for loading and unloading, a pair of uprights arranged upon the floor of said room, a shaft mounted in said uprights and having a pinion at one end, an annulus surrounding each end of said shaft, means for connecting each annulus to the shaft, stub shafts projecting inwardly from each annulus, a rectangular frame pivotally mounted upon each pair of opposed stub shafts and provided with closely arranged flat longitudinally extending partitions forming narrow compartments, a worm-shaft extending into said room and engaging with said pinion, standards arranged within and exteriorly of the room for supporting the worm shaft, and means for operating the worm shaft.

In testimony whereof I affix my signature in the presence of two witnesses.

GEORGE J. STEVENSON.

Witnesses:

WILLIS DAVIDSON,

MILDRED STEVENSON.