

E. F. LOISEAU.

Apparatus for the Manufacture of Artificial Fuel.

No. 147,667.

Patented Feb. 17, 1874.

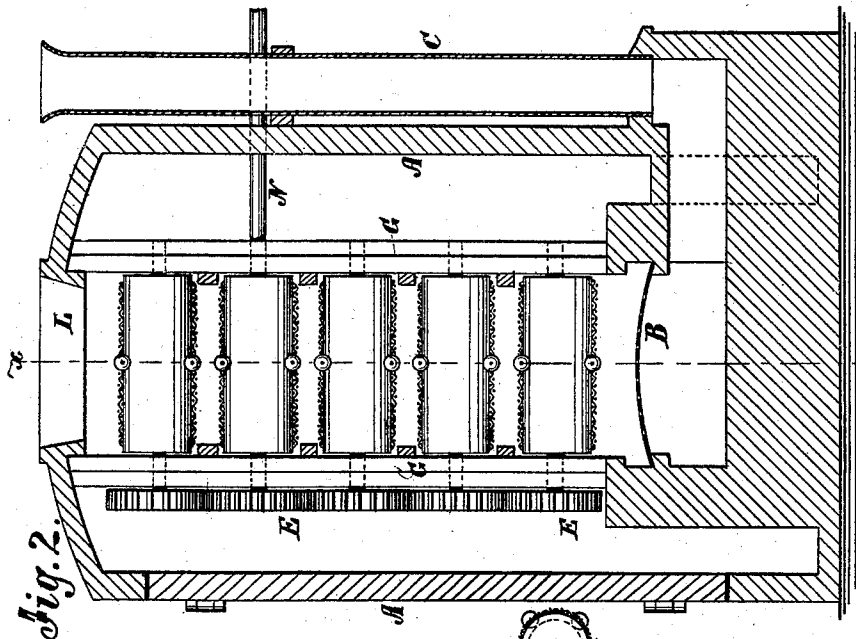


Fig. 2.

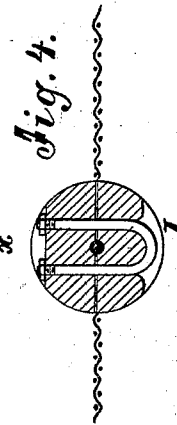


Fig. 4.

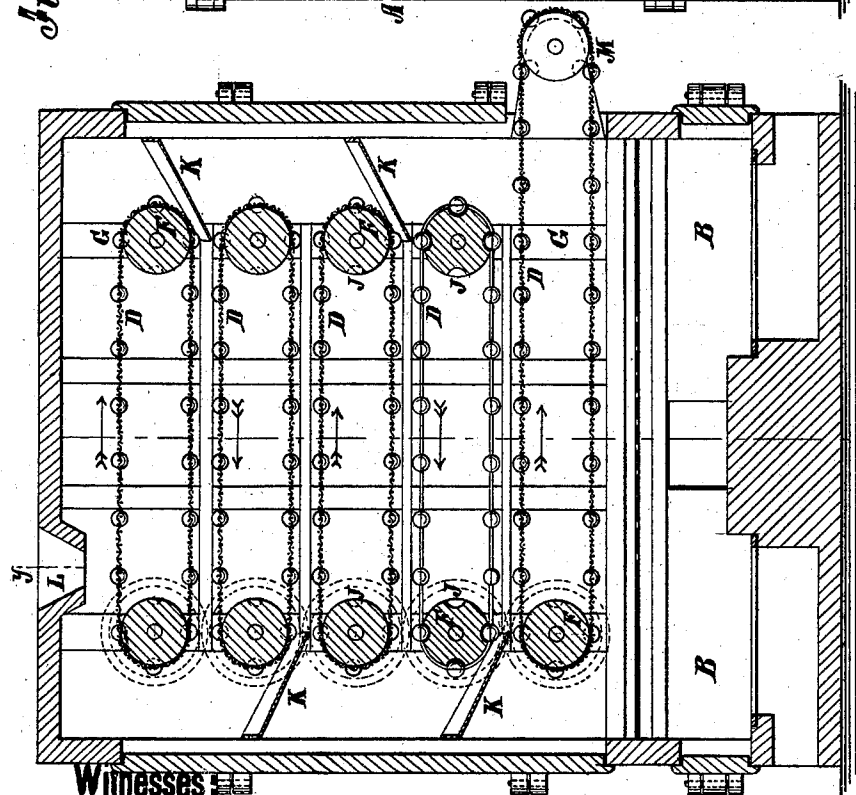


Fig. 1.

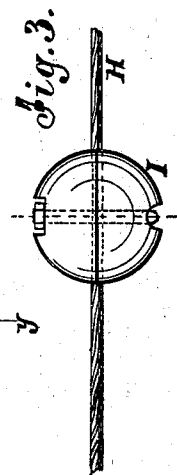


Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

EMILE F. LOISEAU, OF MAUCH CHUNK, PENNSYLVANIA.

IMPROVEMENT IN APPARATUS FOR THE MANUFACTURE OF ARTIFICIAL FUEL.

Specification forming part of Letters Patent No. **147,667**, dated February 17, 1874; application filed September 20, 1873.

To all whom it may concern:

Be it known that I, EMILE F. LOISEAU, of Mauch Chunk, in the county of Carbon and State of Pennsylvania, have invented a new and useful Improvement in Oven for Drying Artificial Fuel, &c., of which the following is a specification:

The invention will first be fully described, and then pointed out in the claims.

In the accompanying drawing, Figure 1 is a vertical section of Fig. 2, taken on the line *x x*. Fig. 2 is a vertical section of Fig. 1 on the line *y y*. Figs. 3 and 4 are details of the belts within the oven.

Similar letters of reference indicate corresponding parts.

A represents the walls of the oven, which are constructed of brick or other suitable material, in the base of which is one or more furnaces, B, provided with a chimney, C. D represents revolving belts, more or less in number of which may be used, arranged one above the other, connected by a system of gear-wheels, E, by means of which the belts are revolved so as to carry the article to be dried back and forth, and finally deliver it near the bottom at one end of the oven. F represents the drums or cylinders over which the belts revolve. The cylinders are revolved on central gudgeons supported by a frame-work, G, and the belts are strengthened by one or more ropes, H, to which is attached a series of balls, I, which engage with recesses J in the drums F, and serve as cogs to propel and prevent the slipping of the belts. These balls are formed each of two hemispheres fastened together by bolts, and the wire-cloth aprons or belts are confined between the hemispheres, as seen in the drawing. The belts revolve as indicated by the arrows.

The material to be dried is conducted from the upper belt to the next, and so on down to the lowest belt, by the inclined aprons or chutes K. The material to be dried is discharged onto the upper belt through the opening L in the top of the oven, and conducted down to the lowest belt, which projects through the wall, and delivers it at the point M. The heated products of combustion fill the entire oven, and the belts are made to move slow or fast, according to the material to be dried.

Suitable motive power is applied to the connecting-gearing by means of a crank or pulley on the end of one of the drum-shafts, as seen at N, or motion may be imparted by any other suitable means.

This oven is more especially designed for drying artificial fuel formed of coal-dust compressed in lumps, but is not confined exclusively thereto, as it is adapted to many other useful purposes.

The oven is provided with a broad door at one side and a door at each end, by means of which access is obtained to the interior for repairs or other purposes.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a fuel-drying kiln, the series of revolving belts D above the bottom one, all made of the same length to economize space.

2. The balls I, guided in gutters J, combined with the aprons K, substantially as and for the purpose set forth.

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Witnesses:

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