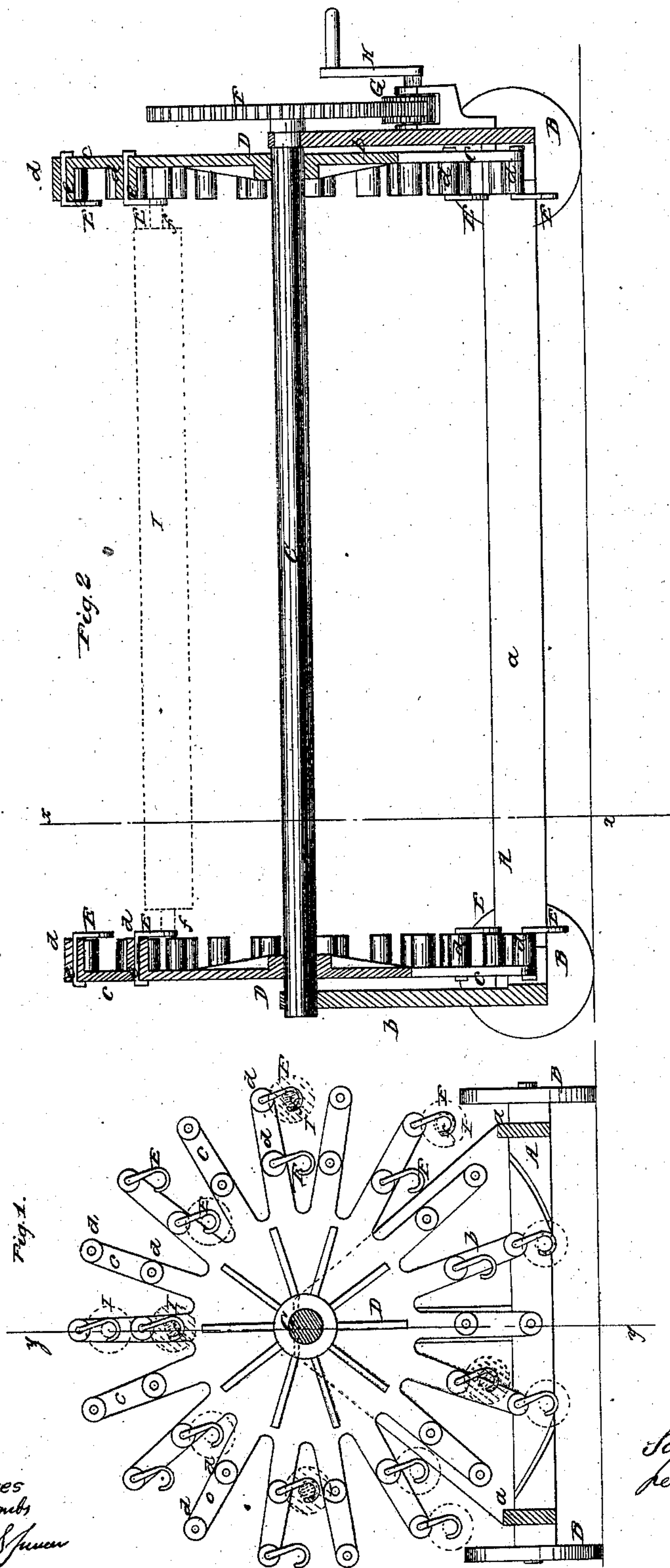


S. Fulton,
Pipe-Molding Machine.

N^o 32,060.

Patented Apr. 16, 1861.



Witnesses
Hobombs
R. S. Spencer

Inventor
Samuel Patton
per Murray &
Attorney

UNITED STATES PATENT OFFICE.

SAMUEL FULTON, OF CONSHOHOCKEN, PENNSYLVANIA.

IMPROVEMENT IN CORE-CARRIAGES.

Specification forming part of Letters Patent No. 32,060, dated April 16, 1861.

To all whom it may concern:

Be it known that I, SAMUEL FULTON, of Conshohocken, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Improvement in Core-Carriages for Drying Cores Used in Casting Pipes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a transverse vertical section of my invention, taken in the line *x x*, Fig. 2. Fig. 2 is a longitudinal vertical section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to economize in casting or manufacturing the smaller kinds of metal pipes, which may be done by drying a large number of molds in one pit, and casting a large number of pipes under one and the same crane. In order, however, to operate effectually in this way it is necessary that a number of cores corresponding with the number of molds should be dried simultaneously in one oven, and this result cannot be attained with an ordinary core-carriage on which the cores are conveyed into the oven and dried, for the reason that a large number cannot be all equally subjected to the heat. A portion will burn before others are dried. To remedy this difficulty, I employ a core-carriage of novel construction, so arranged that the cores may be readily shifted within the oven, and their position changed relatively with each other, so as to insure an even heating and drying of the whole number on the carriage, as hereinafter fully shown and described.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a frame which is mounted on wheels B. This frame may be composed simply of two parallel side rails, *aa*, connected at their ends by standards *bb*, the upper parts of which form the bearings for a shaft, C, which is allowed to rotate freely in its bearings.

On the shaft C there are placed two wheels, D D—one near each end. These wheels D are provided with radial arms *c*, as clearly shown in Fig. 1, and each arm *c* has two lateral pro-

jections, *d*—one at the inner sides of the arms—and the projections of each wheel form two annular concentric rows, as shown in Fig. 1.

In each projection *d* there is fitted the horizontal shank *e* of a hook, E. The shanks *e* are fitted loosely in the projections *d*, so that the hooks E may, by their own gravity, retain themselves in a vertical position when the shaft C and wheels D D are turned.

On one end of the shaft C there is secured a wheel, F, into which a pinion, G, gears, the axis of said pinion having a crank, H, attached. By this arrangement the shaft, and consequently the wheels D D, may be turned with the greatest facility.

The cores I (shown in red) may be formed in the usual or in any proper way, and they are fitted on the carriage by placing the ends of their spindles *f* in the hooks E of each wheel D, the hooks at the ends of the several cores being in line with each other.

By this arrangement it will be seen that a large number of cores may be placed on the carriage, and when the latter is within the oven the position of the cores may be gradually shifted by turning the shaft C, and consequently the wheels D, and as the hooks E are allowed to retain themselves in a vertical position at all times, it follows as a matter of course that the position of the cores relatively with each other gradually change, and the cores, therefore, are not only shifted from the upper to the lower part of the oven by turning the shaft C and wheels D D, but they are also so clamped in position that all parts of their surfaces are equally exposed to the heat, and consequently the entire number of cores on the carriage will be expeditiously and perfectly dried.

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

A core-carriage provided with a revolving shaft, C, and wheels D D, arranged with hooks E, or their equivalents, to serve as bearings for the cores, all being arranged, substantially as shown, to admit of the changing or shifting of the cores within the oven, as and for the purpose set forth.

SAMUEL FULTON.

Witnesses:

AUGS. SCHWARZ,
WM. W. DALBEY.