I. B. COTTRELL.

Fruit Driers.

No. 142,147. Patented August 26, 1873.

Fig 1

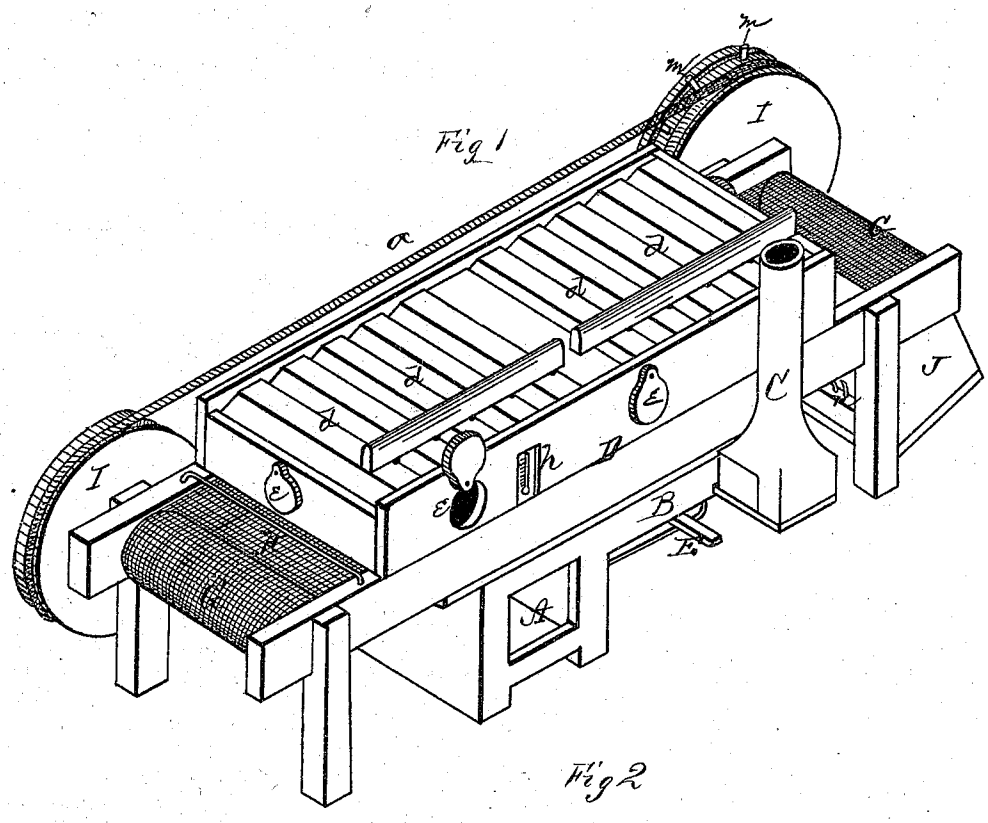
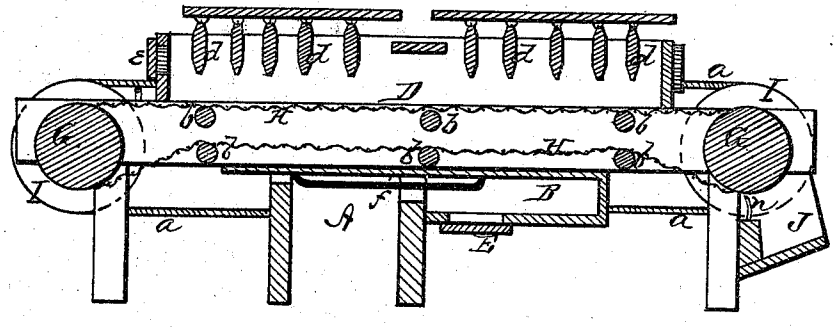


Fig 2



Witnesses
Franck L. Durand

Inventor
Isaac B. Cottrell.
By J. McC. Perkins, Attorney

UNITED STATES PATENT OFFICE.

ISAAC B. COTTRELL, OF BRIDGEVILLE, DELAWARE.

IMPROVEMENT IN FRUIT-DRIERS.

Specification forming part of Letters Patent No. **142,147**, dated August 26, 1873; application filed May 19, 1873.

To all whom it may concern:

Be it known that I, ISAAC B. COTTRELL, of Bridgeville, in the county of Sussex and State of Delaware, have invented certain new and useful Improvements in Fruit-Driers; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of a machine for drying fruits, bark, &c., as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a perspective view, and Fig. 2 a longitudinal vertical section, of my drying-machine.

A represents a furnace of any suitable construction, with an ash-pit underneath. From this furnace a wide flue, B, extends for any desired distance, and communicates with a chimney, C. In the bottom of this flue B is a damper, E, for regulating the heat. Above the furnace A and flue B is formed a hot-air chamber, D, part of the sides of which are extended toward both ends, and contains a roller, G, at each end. Around these two rollers is passed an endless apron or wire netting, H, supported upon rollers *b b*, and passing through the hot-air chamber D. The top of the hot-air chamber D is provided with pivoted slats *d d*, arranged similar to those of a window-blind, so that they can be opened more or less, to allow the vapor to pass off. The chamber D is also provided with valves *e e* at the sides and ends, for the purpose of giving more air and examining the material while it is in progress of drying. In the furnace A, and immediately above the flame, is formed an air-chamber, *f*, for the purpose of diminishing the extreme heat in the drying-chamber at this point. *h* represents a thermometer, arranged in the side of the drying-chamber D, so that the operator can at all times ascertain the temperature in the same, and thus keep it uniform. Upon the journal of each roller G, outside of the hot-air chamber D, is a large pulley, I, which two pulleys are connected by means of a belt or cord, *a*, for the purpose of taking the strain off the wire netting H. One of these pulleys I is provided with handles *m m*, to use when the machine is run by hand.

The material to be dried is placed on the netting H at one end of the machine, and passes through the hot-air chamber D, and drops off in a box, J, at the other end. At this end is placed a wire brush, *n*, for the purpose of clearing the netting of any material that may adhere to the same.

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

The hot-air chamber D, provided with pivoted slats *d d* and valves *e e*, and having the endless netting H passing through it, in combination with the furnace A having air-chamber *f*, the flue B, and chimney C, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of May, 1873.

ISAAC B. COTTRELL.

In presence of—

THEORON BALL,

T. W. WILLIN.