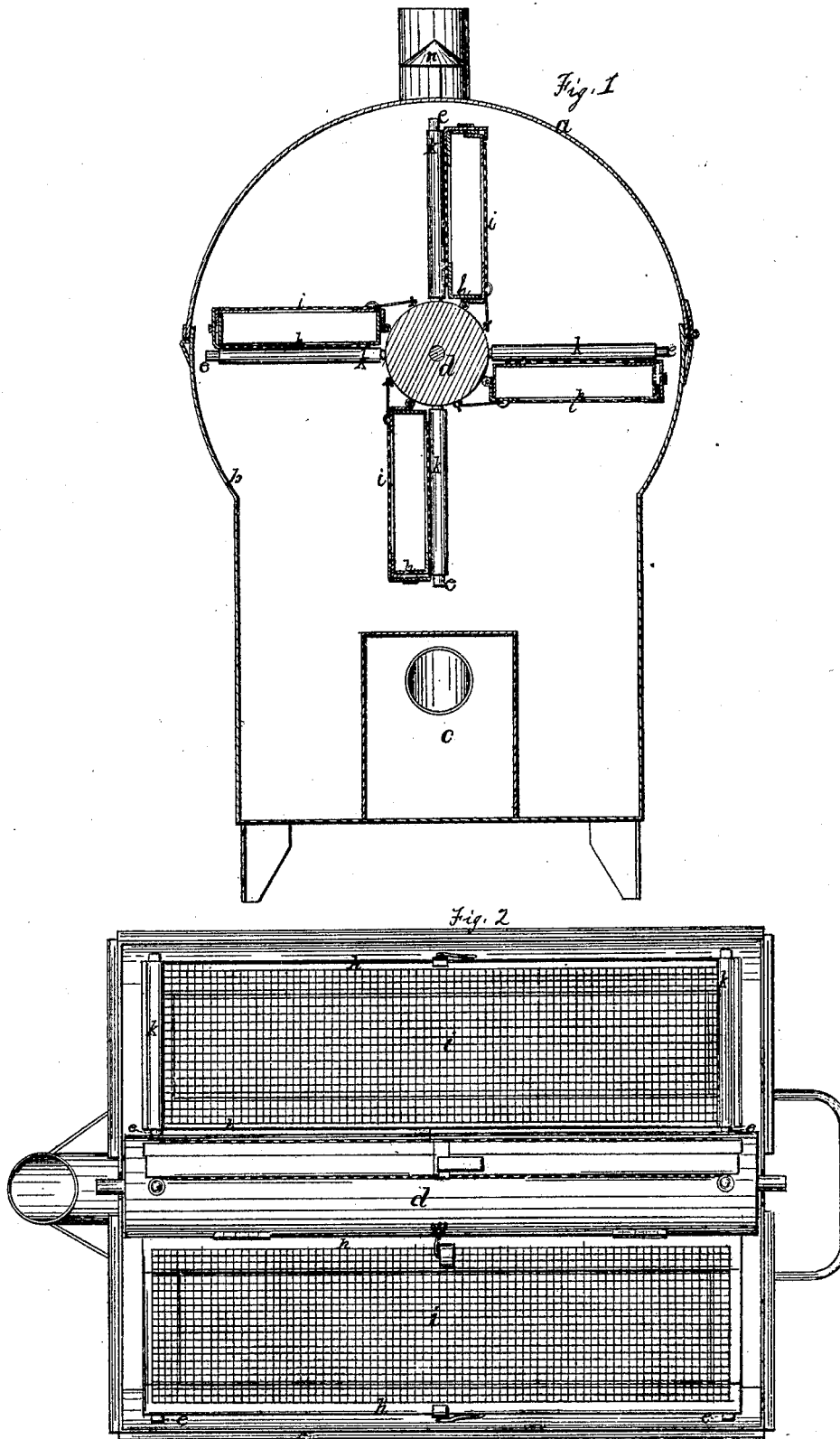


B. F. ELLS.
FRUIT DRIER.

No. 112,022.

Patented Feb. 21, 1871.



Witnesses
M. E. Orton.
C. O. Brown

B. F. Ells
Inventor, by
Geo. E. Brown,
Att'y.

UNITED STATES PATENT OFFICE.

BENJAMIN F. ELLS, OF DAYTON, OHIO.

IMPROVEMENT IN FRUIT-DRIERS.

Specification forming part of Letters Patent No. 112,022, dated February 21, 1871.

I, BENJAMIN F. ELLS, of Dayton, in the county of Montgomery, in the State of Ohio, have invented certain Improvements in Fruit-Driers, of which the following is a specification:

This invention relates to a fruit-drying apparatus consisting of a shaft provided with a weight or spring to make it revolve, furnished with sets of radial arms, which sustain the cases in which the fruit is packed, and placed within an inclosing-shell, which is supplied with air heated by radiation from the outside of a furnace located within the inclosing-shell beneath the drier.

Figure 1 is a transverse vertical section, and Fig. 2 a plan view.

In the drawing, *a* is the upper, and *b* the lower, section of the inclosing-shell, the two sections being hinged together, so that the upper may be thrown back. *c* is the furnace in the lower part of the shell. *d* is the shaft, mounted at the top of the lower section, *b*. *e* are the radial arms, *h* the oblong frames, and *i* the wire screens, which together compose the fruit-cases.

The frames *h* are to be made of galvanized iron, and the wire nettings are to be coated with tin, so as to prevent the fruit from staining by contact with the metal. The shell is to be made of sheet-iron.

The two frames *h* of each case may be swung apart on the hinges to admit fruit, and are to be provided with a device for fastening them together when shut.

A tube, *k*, is attached to the end of each case, which, when slipped on over the radial arms *e* and secured thereon by springs, connects the cases with the shaft *d*.

The top of the shell is pierced with ventilating-orifices, which are provided with slides to regulate the draft, and furnished with the usual hoods *n*.

This drier need not weigh over seventy-five pounds. Its dimensions may conveniently be two feet in length, four and one-fourth feet in height, and two and one-half feet in width. It dries fruit perfectly in from one and one-half to two hours without burning, smoking, or sweating it.

The cases may be removed and an oven substituted resting on ledges or springs, and provided with a perforated bottom.

The outside of the furnace may also be used as a place for heating flat-irons.

What I claim as new, and desire to secure by Letters Patent, is—

1. A fruit-case, *h i*, combined with tubes *k*, in the manner and for the purpose specified.

2. The combination of the shaft *d*, radial arms *e*, and fruit-cases *h i*, in the manner and for the object specified.

BENJAMIN F. ELLS.

Witnesses:

THOS. D. MITCHELL,
JAMES LINDEN.