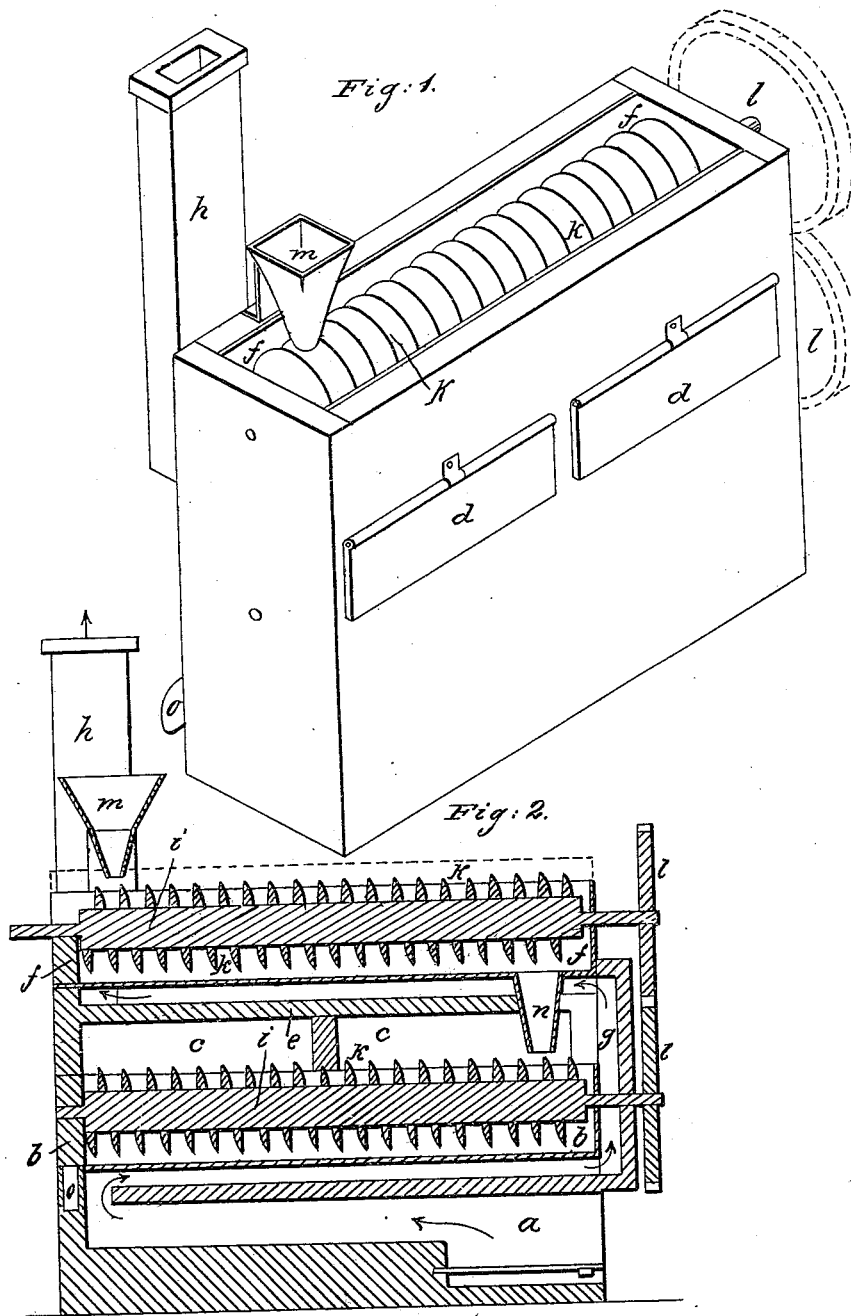


A. BIGELOW.

Grain Drier.

No. 5,574.

Patented May 16, 1848.



UNITED STATES PATENT OFFICE.

AMOS BIGELOW, OF ADRIAN, MICHIGAN.

GRAIN-DRIER.

Specification of Letters Patent No. 5,574, dated May 16, 1848.

To all whom it may concern:

Be it known that I, AMOS BIGELOW, of
Adrian, in the county of Lenawee and State
of Michigan, have invented new and useful
5 Improvements in Machinery for Drying
Grain, and that the following is a full, clear,
and exact description of the principle or
character which distinguishes them from all
other things before known, and of the man-
10 ner of making, constructing, and using the
same, reference being had to the accompany-
ing drawings, making part of this speci-
fication, in which—

Figure 1 is an isometrical projection of
15 the apparatus, and Fig. 2, a vertical lon-
gitudinal section.

The same letters indicate like parts in all
the figures.

The improvements for drying grain in-
20 vented by me are constructed in the follow-
ing manner: A furnace is formed as at (*a*)
Fig. 2, above which a long semi-cylindrical
metal trough (*b*) is set resting on the brick
work at the sides. Just above this there are
25 spaces (*c*) left in the brick work which have
doors (*d*) that can be made to cover them.
Above these apertures there is a cover or
floor (*e*) and again over that there is a sec-
ond long trough (*f*) like that first named.
30 A flue or flues (*g*) connect the furnace space
(*a*) with the space above the floor (*e*) and
upper trough (*f*) at one end, and at the op-
posite end there is a chimney (*h*). The
arrows show the direction of the smoke. A
35 cover shuts over the upper trough which
forms it into a cylinder and incloses it while
it can be readily removed if desired. In
each of the troughs above named there is a
shaft or axle (*i*) around which a spiral

thread (*k*) is wound, this construction be- 40
ing similar to a carrier in a flour mill. The
two shafts are geared together outside the
kiln by spur wheels (*l*) which are also con-
nected with the driving power and caused to
turn in opposite directions. The corn enters 45
the upper trough through a spout (*m*) at
one end whence it is carried to the other
end by the spiral on the shaft above named.
From thence it descends down through a
spout (*n*) into the lower trough and is re- 50
conducted back to the opposite end of the
kiln by the lower screw that is turning in
a contrary direction to the upper one. It is
then discharged out of a spout (*o*), having
been dried perfectly during its passage 55
through the kiln, a matter of great impor-
tance in managing the process properly.
This mode of construction gives a ready
means of getting at the grain during its de-
scent through the machine, while it has the 60
advantage of being easily inclosed like the
ordinary kilns for similar purposes.

What I claim as my invention, and de-
sire to secure by Letters Patent is—

Constructing a kiln, substantially as de- 65
scribed, having troughs through which the
grain passes, placed one above the other and
accessible at all points where the grain passes
in its course through the drying kiln, as
above specified, the course of the grain be- 70
ing in one direction and that of the smoke
and heat in another, but in separate com-
partments.

AMOS BIGELOW.

Witnesses:

D. B. DENNIS,
L. B. BOWEN.