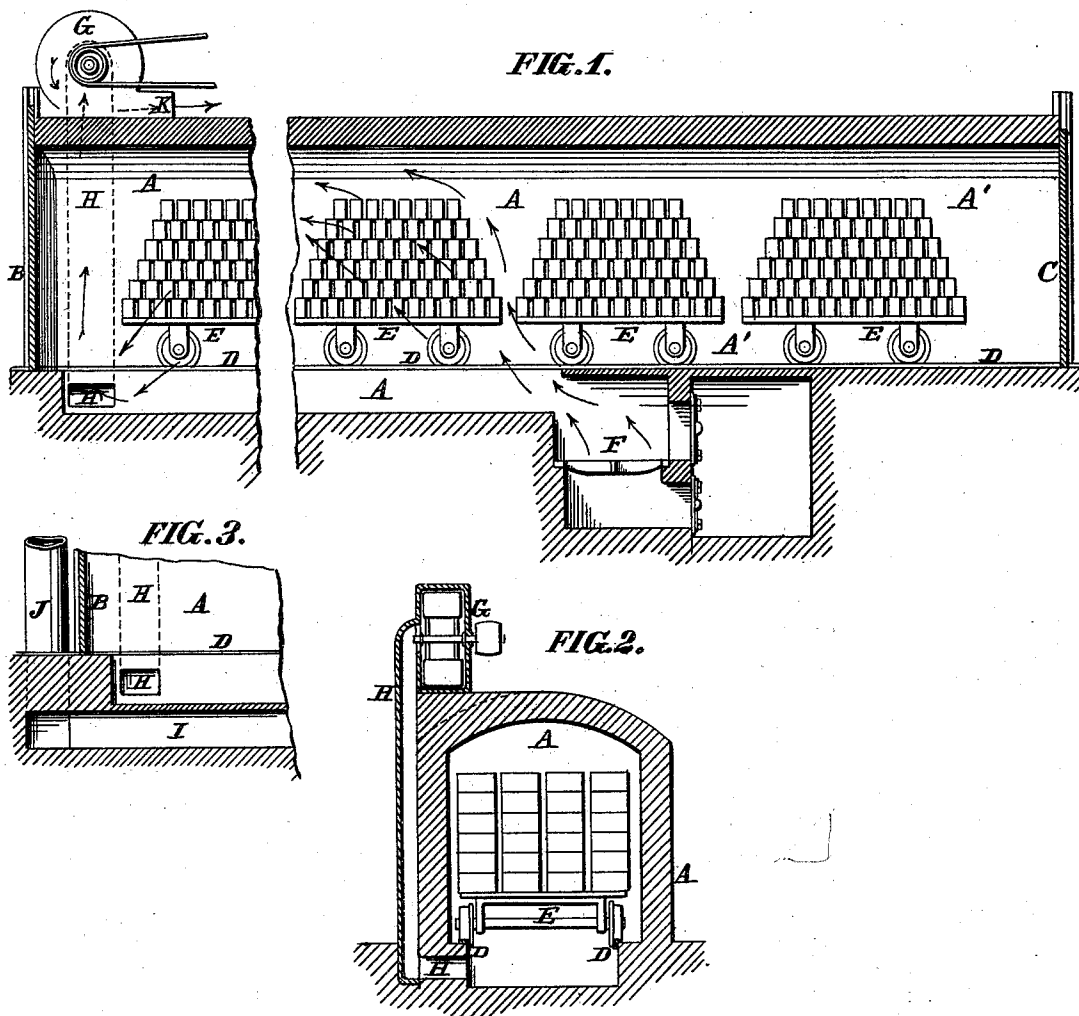


E. F. ANDREWS.

BRICK-DRIER.

No. 170,928.

Patented Dec. 7, 1875.



ATTEST:

Robert Burns.
Henry Tanners

INVENTOR:

Edwin F. Andrews
By Knight & Bro.
Atty.

UNITED STATES PATENT OFFICE.

EDWIN F. ANDREWS, OF ST. LOUIS, ASSIGNOR OF THREE-FOURTHS HIS RIGHT TO ALFRED W. ROPER, OF ST. LOUIS, JOSEPH D. KEEBAUGH, OF GLASGOW, AND SAMUEL J. CONLEY, OF COLUMBIA, MISSOURI.

IMPROVEMENT IN BRICK-DRIERS.

Specification forming part of Letters Patent No. **170,928**, dated December 7, 1875; application filed February 1, 1873.

To all whom it may concern:

Be it known that I, EDWIN F. ANDREWS, of St. Louis, in the county of St. Louis and State of Missouri, have invented a certain Brick-Drier, of which the following is a specification:

The invention consists in the arrangement of an exhaust-fan at the rear end of the drier, which exhausts the damp air from the rear end, and draws in the heated air at the front of the drier, and said fan is so arranged as to take its supply from the bottom of the drier, so that the heavy damp air that falls by gravity to the bottom of the drier is removed first. The air may be heated by drawing it through a coke-furnace at or near the front end of the drier, or by contact with a flue extending through the body of the drier, through which the products of combustion pass, in which latter case the discharge-trunk of the fan may discharge under the furnace-fire, so as to force the same.

In cases where a steam-boiler furnace is accessible the products of combustion may be forced through the flues of the drier after having passed through the flues of the boiler, and in this case no separate provision need be made of a furnace to heat the drier.

In the drawings, Figure 1 is a longitudinal section. Fig. 2 is a transverse section at line *x x*. Fig. 3 is a detail longitudinal section.

A is the body of the drier, provided at front and rear with doors B and C, and having at bottom a track, D, on which roll trucks E, car-

rying the bricks to be dried. F is a coke-furnace, discharging the products of combustion, as shown by arrows in Fig. 1, into the body of the drier. G is a fan, connecting, by trunk H, with the bottom of the drier, as shown in Fig. 2. Instead of the furnace F discharging the products of combustion directly into the body of the drier, they may be made to pass through the longitudinal flue I, in connection with the stack J, and heat the air in the drier by radiation, and where a steam-boiler furnace is used the flue I may connect with the breeching of the same, and, if desired, the fan-discharge through the trunk K may be used to force the draft of the furnaces. The furnace F is preferably arranged so as to discharge into the drier at some distance from the front, so as to leave the front part A' of the drier A as a cooling-chamber for the dried bricks, the heat given out by the same in cooling being carried back in the drier and utilized in drying the bricks in the rear of the drier.

I claim as my invention—

The combination, in a horizontal drier, of a furnace, F, arranged at one end of the drier, and which discharges its heat directly into the body of the drier, and flue H and exhaust-fan G, arranged at the other end of the drier, as and for the purpose set forth.

EDWIN F. ANDREWS.

Witnesses:

SAML. KNIGHT,
ROBERT BURNS.