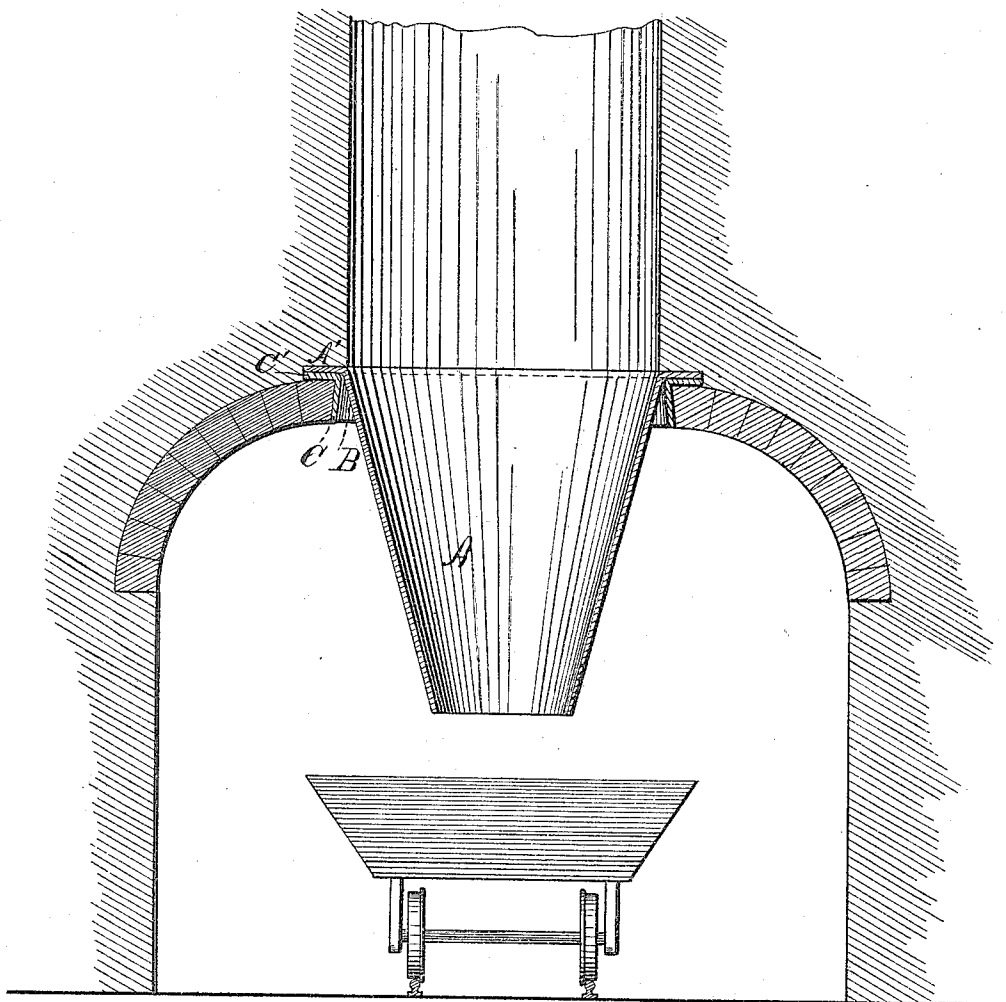


D. KEEPORTS.

Lime-Kiln.

No. 134,292.

Patented Dec. 24, 1872.



Witnesses

*W. Bradford*  
*Chas. J. Hills*

*D. Keeperts*

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*Attys*

# UNITED STATES PATENT OFFICE.

DAVID KEEPORTS, OF LOGANSPORT, INDIANA.

## IMPROVEMENT IN LIME-KILNS.

Specification forming part of Letters Patent No. 134,292, dated December 24, 1872.

*To all whom it may concern:*

Be it known that I, DAVID KEEPORTS, residing at Logansport, in the county of Cass and State of Indiana, have invented certain Improvements in Lime-Kilns, of which the following is a specification:

This invention is intended as an improvement upon the lime-kiln patented by R. Donaldson, February 19, 1861, and reissued May 19, 1863, and relates to the funnel-shaped cooler therein shown and described, in which the lime is properly cooled before its discharge into the car for removal. This cooler, projecting below the arch so that the cold air may freely circulate around it, is, with its upper end, bricked in the masonry of the shaft of the kiln, and this part is exposed to such intense heat that in the practical application of the device it soon burns out where it lies in the wall, requiring its replacement by a new one, which is a very difficult operation. My improvement consists in surrounding that part of the cooler lying in the wall with an open air-chamber, through which the air may freely circulate, and thus reducing the temperature of this part to such a point that the metal may not be more injuriously affected here than at other parts of the cooler.

The drawing hereto annexed illustrates one mode of carrying my invention into practice.

The cooler A protrudes from the lower end

of the shaft of the kiln into the archway beneath, and is suspended by a circumferential flange, A', which lies on top of the arch-brick, as shown. The upper portion of the cooler extending into the masonry is surrounded by an air-chamber, B, open at the lower end for the free admission of air, and running up to the flange A', as clearly illustrated. This air-chamber may be formed by cutting away a portion of the brick-work; but I prefer to provide the cooler with a sleeve, C, for that purpose, the sleeve being bolted with its flange C' to the flange A' of the cooler, and being made of sufficient height to reach to the surface of the arch, as indicated. The lower end of the cooler will be provided with suitable means to close it when desired.

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

In combination with the discharge end of a lime-kiln, a cooler, A, surrounded, where it extends into the masonry, by an open air-chamber, B, substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID KEEPORTS.

Witnesses:

PETER RICE,  
BENJAMIN B. KEEPORTS.