

J. E. CRANE.  
Screen for Wool Driers.

No. 52,270.

Patented Jan'y 30, 1866.

Fig. 2

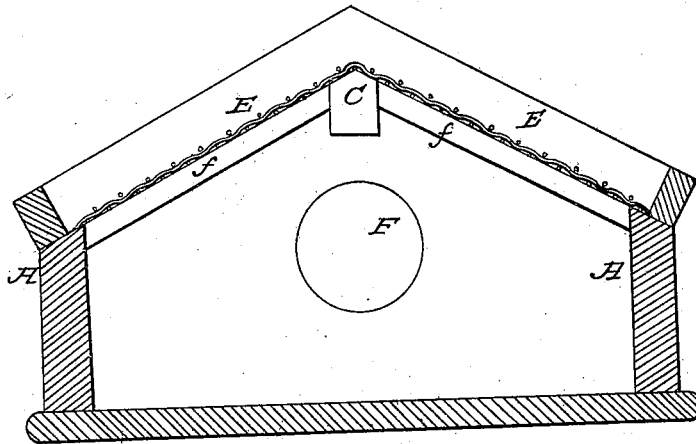
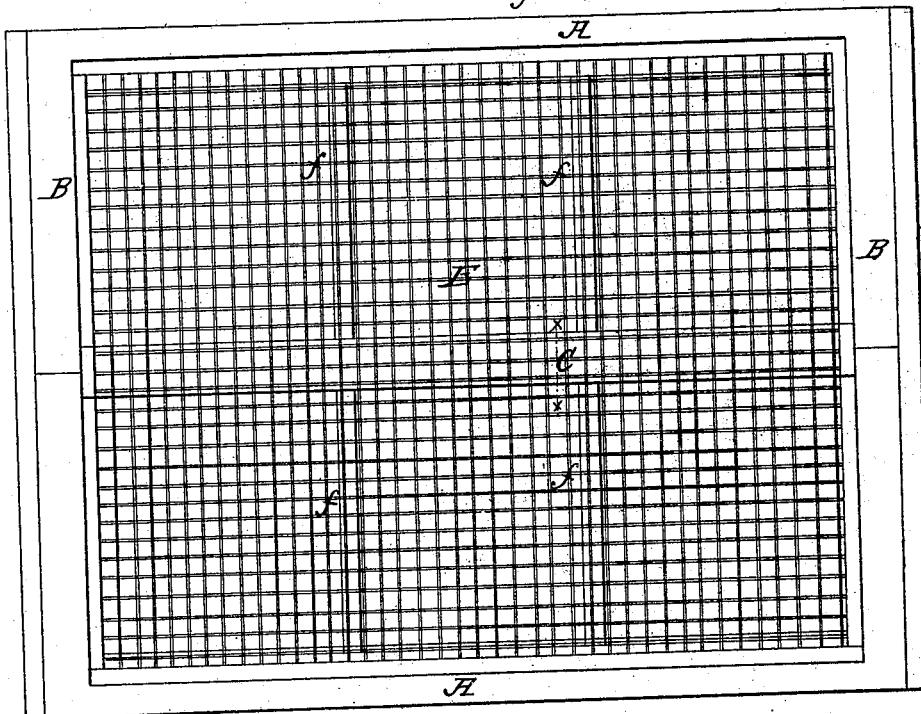


Fig. 1



WITNESSES

*J. W. Whitney*  
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# UNITED STATES PATENT OFFICE.

JOHN E. CRANE, OF LOWELL, MASSACHUSETTS.

## IMPROVEMENT IN SCREENS FOR WOOL-DRIERS.

Specification forming part of Letters Patent No. **52,270**, dated January 30, 1866; antedated November 27, 1865.

### *To all whom it may concern:*

Be it known that I, JOHN E. CRANE, of Lowell, in the county of Middlesex and State of Massachusetts, have invented a new and useful improvement in the apparatus or machines which are used in conjunction with a current or blast of air for the purpose of drying wool or other fibrous substance, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan or top view of my improved wool-drier, and Fig. 2 is a transverse section of the same.

Recent experiments have demonstrated that the best method of drying wool is by exposing the wool on an extended surface of wire-screen or other open-work sheets, and then by drawing or forcing atmospheric air through the screen and the wool to carry off the wet or dampness it contains. But to produce the best effect it is necessary that the screen employed in said wool-drier should be distinguished by the following peculiarities—viz., small meshes and fine wires well protected, so that the wet or dampness in the wool will not corrode the wires, and so high a degree of smoothness that the wool will not adhere to the screen.

I give the requisite degree of openness, fineness, and protection to the screen portion E of my improved wool-drier by first smoothing the wires of which it is composed, then by subjecting said wires to a solution of sulphate of copper, then by smoothing the copper so deposited upon the wires, then by passing said wires through melted tin or zinc or other

non-corrosive and protecting metal, thus perfectly covering the wires with the said protecting metal, then by polishing or smoothing the same to that degree that wool cannot adhere to the said wires, then by weaving the said wires into a fabric of the proper texture.

Without being subjected to the aforesaid method of treatment the said wire screen, if made of common wire, would present numerous cracks and rough places, or be covered with scales, and prevent the easy removal of the wool from the screen. Besides the wet or dampness in the wool would so corrode the wires as to destroy the screen in a very short time.

A series of inclined ribs, *f*, extend from the center girt, C, downward to the sides A A of the wool-drying apparatus, and the screen E is arranged over the tops of said ribs and the center girt, C, and is fastened to the same and to the sides A A and the ends B B about six inches below their top edges.

An opening, F, in either end B of the wool-drier provides for ingress or egress of atmospheric air, which may be forced or drawn through the screen and the wool in either direction.

I claim—

The use of a screen with a wool-drier, when the said screen has been manufactured, substantially as herein set forth, for the purpose of protecting it from the action of wet or dampness in the wool, and so as to prevent the wool from adhering to the screen.

JOHN E. CRANE.

In presence of—

J. L. WHITNEY,  
C. W. RUGG.