

No. 640,176.

A. BREMER.

Patented Jan. 2, 1900.

PROCESS OF PRODUCING HOLLOW WALLS AND ROOFS OF CAST MORTAR.

(No. Model.)

(Application filed Feb. 23, 1899.)

Fig. 1.

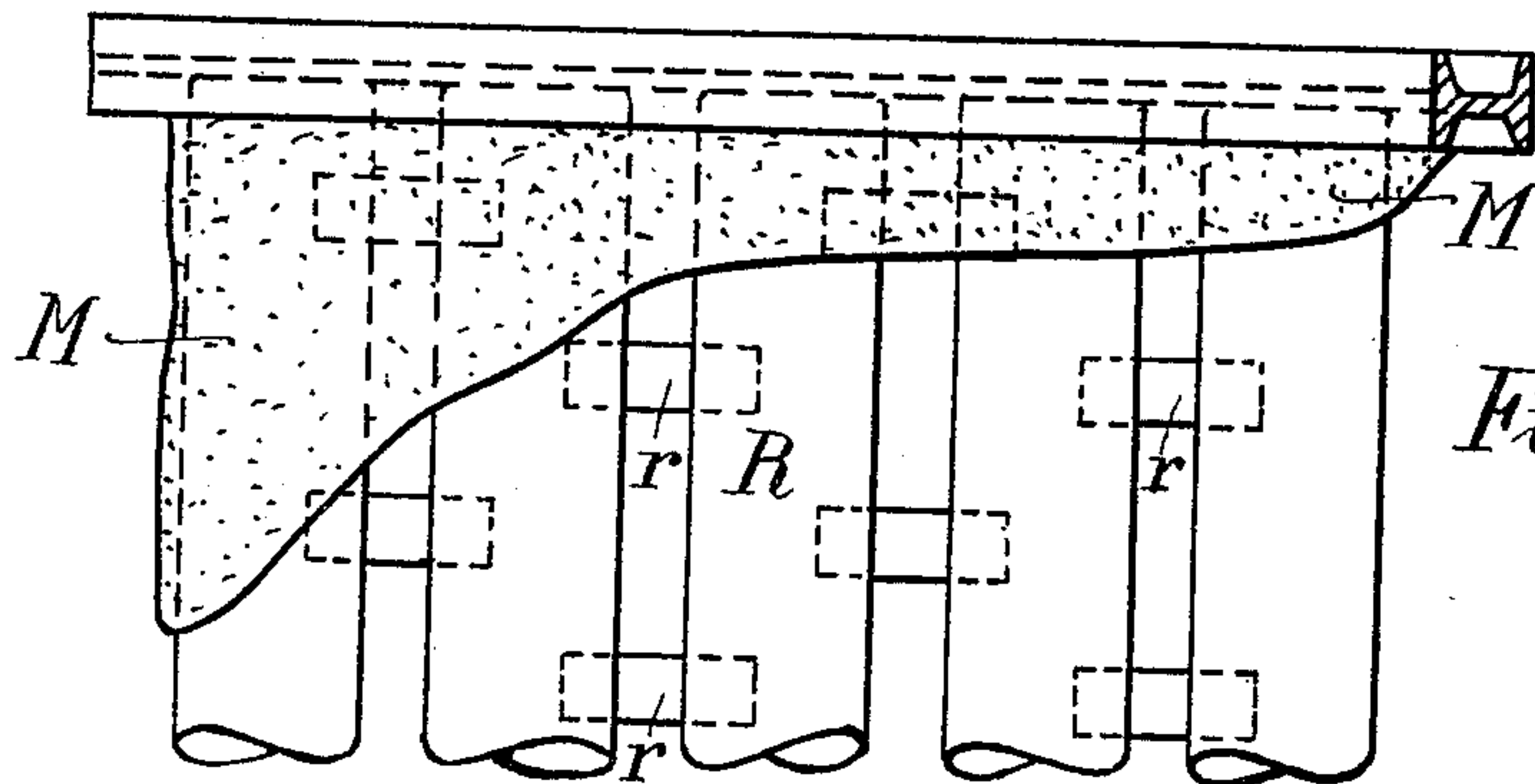
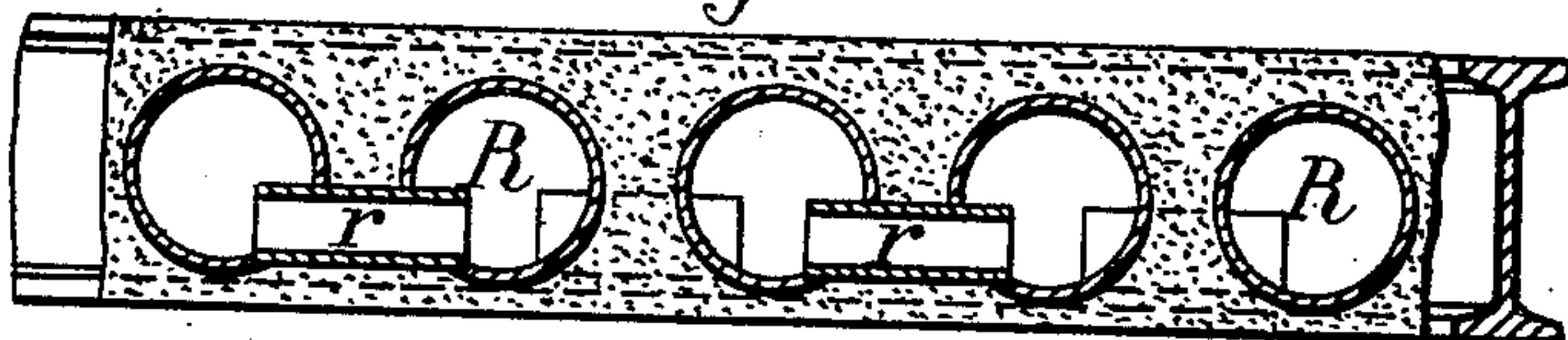


Fig. 2.

Witnesses:

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Att'y.

# UNITED STATES PATENT OFFICE.

AUGUST BREMER, OF HALLE-ON-THE-SAALE, GERMANY, ASSIGNOR TO  
HEINRICH LEHMANN, OF SAME PLACE.

PROCESS OF PRODUCING HOLLOW WALLS AND ROOFS OF CAST MORTAR.

SPECIFICATION forming part of Letters Patent No. 640,176, dated January 2, 1900.

Application filed February 23, 1899. Serial No. 706,623. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUST BREMER, a subject of the Emperor of Germany, residing at Halle-on-the-Saale, Empire of Germany, have  
5 invented certain new and useful Processes for Producing Hollow Walls and Roofs of Cast Mortar, of which the following is a full, clear, and exact description.

The present invention relates to hollow  
10 walls and roofs of cast mortar.

According to the invention pipes are cast into the walls, roofs, and blocks made on the present system in the manner hereinafter set forth.

15 In order to render the present specification more easily intelligible, reference is had to the accompanying drawings, in which similar letters of reference denote similar parts throughout both views.

20 Figure 1 is a cross-section through a part of a roof constructed according to the present invention. Fig. 2 is a plan of the same.

In making a roof according to the present process the pipes R R are first laid in position  
25 between the girders at a suitable distance apart and retained in such position by filling out the spaces around the ends, as also at about the center of the same, with mortar, which also prevents the pipes from being filled  
30 by the mortar mass subsequently cast around them. Suitable boarding or other means may be provided beneath the girders to prevent the mortar from falling through when cast. After the tubes have thus been fixed in po-

sition the mass of cement, plaster-of-paris, or 35 other good binding-mortar is cast around the whole of the tubes, as at M, and the surfaces of the roof subsequently visible may be dressed.

The main pipes R R, passing through the 40 mass, are connected up by means of short intermediate pipes r, which serve to establish communication between the interior of the said pipes. These pipe systems may be employed for ventilating purposes or for heat- 45 ing systems, in which latter case the interior of the pipes may be connected up to any suitable central heating apparatus. (Not shown.)

In order to prevent insects from getting in the wall or roof, the pipes R r are advanta- 50 geously impregnated with suitable disinfectants before they are cast in.

I claim as my invention—

In a cast-mortar wall the combination of a series of pipes running substantially parallel 55 to each other and a series of short substantially transverse pipes, to establish communication between the interiors of two neighboring pipes, all said pipes being mounted within the mortar in the manner and for the purpose 60 substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

AUGUST BREMER.

Witnesses:

HERM. SACK,  
RUDOLPH FRICKE.