

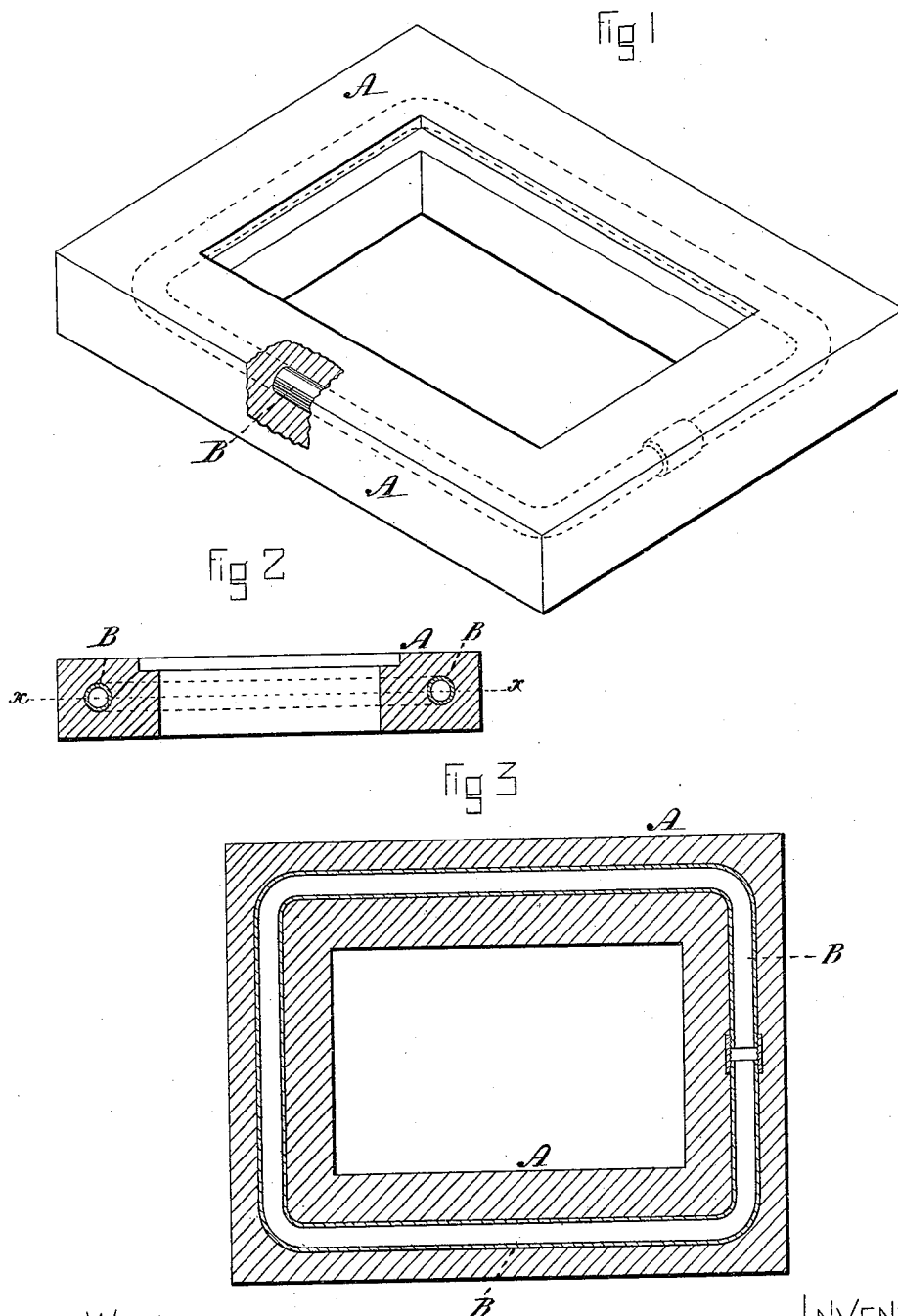
(No Model.)

R. TREFETHEN & J. M. WILLEY.

HOT AIR REGISTER BORDER.

No. 263,443.

Patented Aug. 29, 1882.



WITNESSES
W. J. Cambridge
Albert A. Kelly

INVENTORS
Romano Trefethen
Jacob M. Willey
Per S. Schuchmacher
Atty

UNITED STATES PATENT OFFICE.

ROMANZO TREFETHEN AND JACOB M. WILLEY, OF DOVER, N. H.

HOT-AIR-REGISTER BORDER.

SPECIFICATION forming part of Letters Patent No. 263,443, dated August 29, 1882.

Application filed June 10, 1882. (No model.)

To all whom it may concern:

Be it known that we, ROMANZO TREFETHEN and JACOB M. WILLEY, citizens of the United States, residing at Dover, in the county of Strafford and State of New Hampshire, have invented an Improvement in Hot-Air-Register Borders, 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 perspective view of our register-border, a portion of one side being broken away to show the interior construction. Fig. 2 is a transverse vertical section through the same. Fig. 3 is a horizontal section through the same on the line *xx* of Fig. 2.

Hot-air-register borders have heretofore been usually made of soapstone or marble. These materials are, however, liable to fracture if subjected to a sudden shock or blow, or if a heavy weight is placed thereon, and are, moreover, quite expensive, marble being the more costly of the two materials on account of its hardness and the consequent labor of cutting and smoothing it. Furthermore, in setting these borders it is customary to apply wooden cross-braces between the floor-timbers to form rests for supporting the ends of the border, and thus reduce the liability of breakage.

Our invention consists in a register-border composed of artificial-stone compound or other suitable plastic substance, and having embedded within it a metallic strengthening-frame extending entirely around it, whereby a very much stronger and more durable border is produced at a greatly-reduced cost, and the necessity of using braces to support the ends of the border, as heretofore, is entirely avoided.

In the said drawings, A represents a hot-air-register border or frame, which is of the usual form, and is preferably composed of artificial-stone compound molded to the required shape; but it may be made of other suitable plastic substance which, when molded and dried, will possess the requisite degree of hardness and stability.

In making our border we employ a suitable

iron mold, which is first partially filled with the plastic substance of which the border is to be composed, after which a strong metal frame, B, adapted to extend entirely around the border, is embedded therein and the mold then filled up with the plastic substance, which is then subjected to a heavy pressure, after which the article is withdrawn from the mold and allowed to dry and harden, when it is ready for use.

We prefer to make the metallic strengthening-frame B of gas-pipe on account of its lightness and strength; but it may be composed of one or more bars or pieces of iron, steel, or other suitable metal, of square, flat, half-round, or other convenient form in cross-section.

A register-border made as above described can be furnished at a very much less cost than one formed of soapstone or marble, is very neat and smooth, and can be made of any color desired, while the embedded metallic frame B renders it entirely free from liability of being broken by a sudden shock or strain, and enables us to dispense with the wooden braces heretofore placed between the floor-timbers to support the ends of the border.

We are aware that heretofore an iron register with flanges has been secured to an iron register-border having lapping flanges by means of a heavy inserted packing of plaster-of-paris.

What we claim as our invention, and desire to secure by Letters Patent, is—

As a new article of manufacture, a register-border composed of artificial-stone compound or other suitable plastic substance, and having embedded within it a metallic strengthening-frame, B, extending around it, substantially in the manner and for the purpose set forth.

Witness our hands this 6th day of June, A. D. 1882.

ROMANZO TREFETHEN.
JACOB M. WILLEY.

In presence of—
J. M. CROSBY,
V. H. McDANIEL.