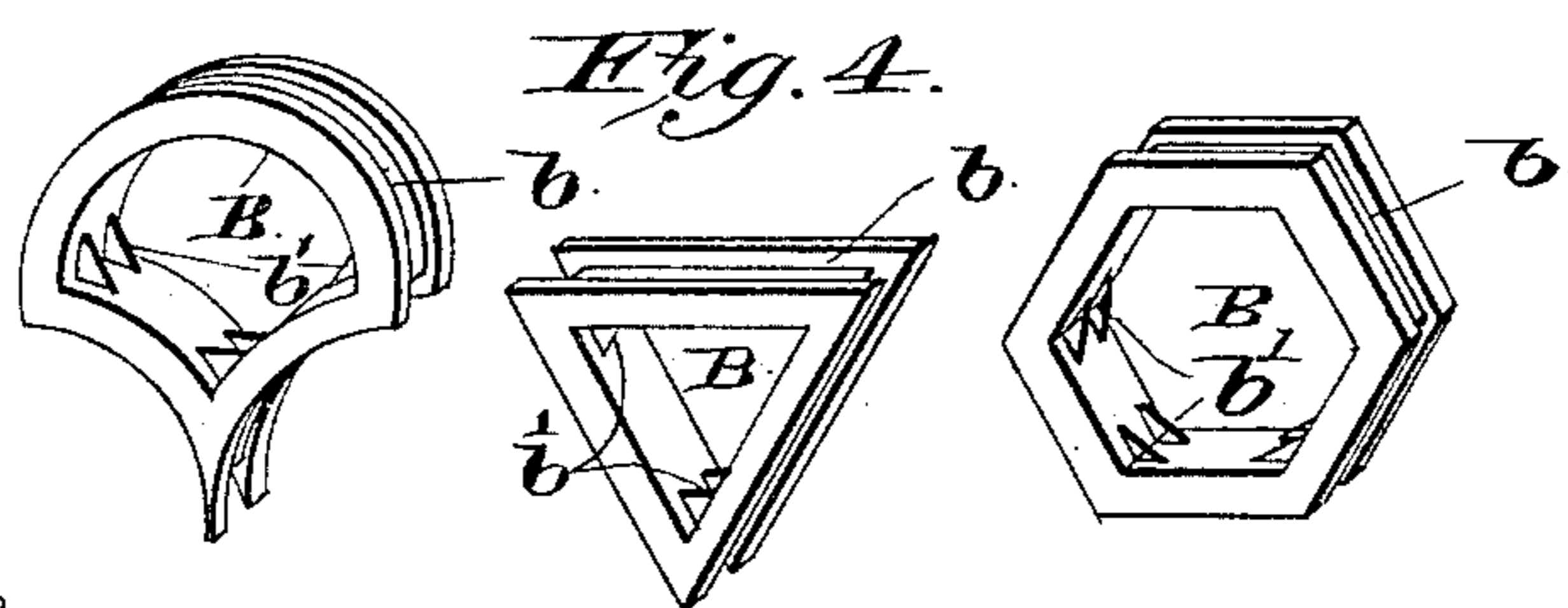
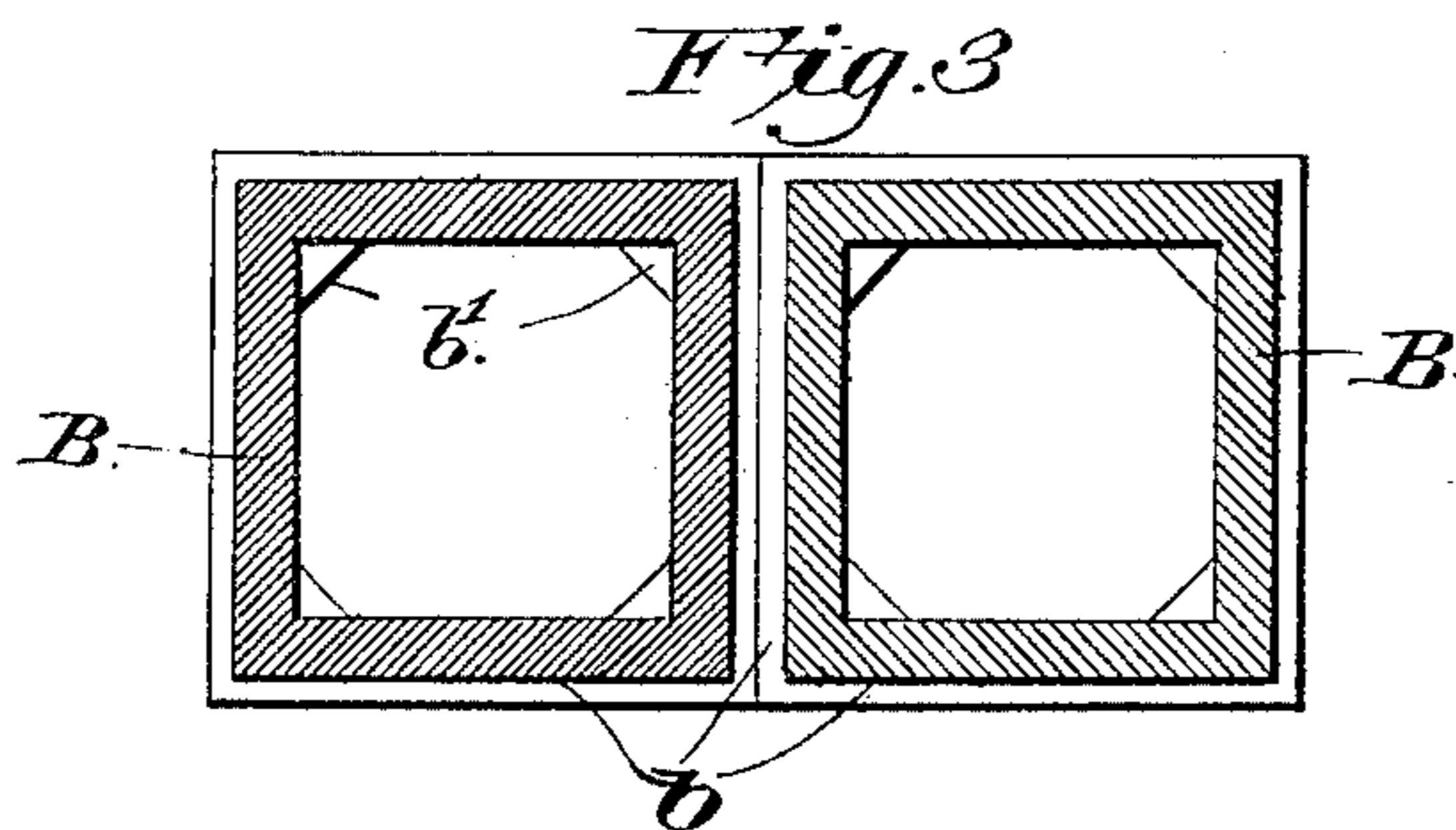
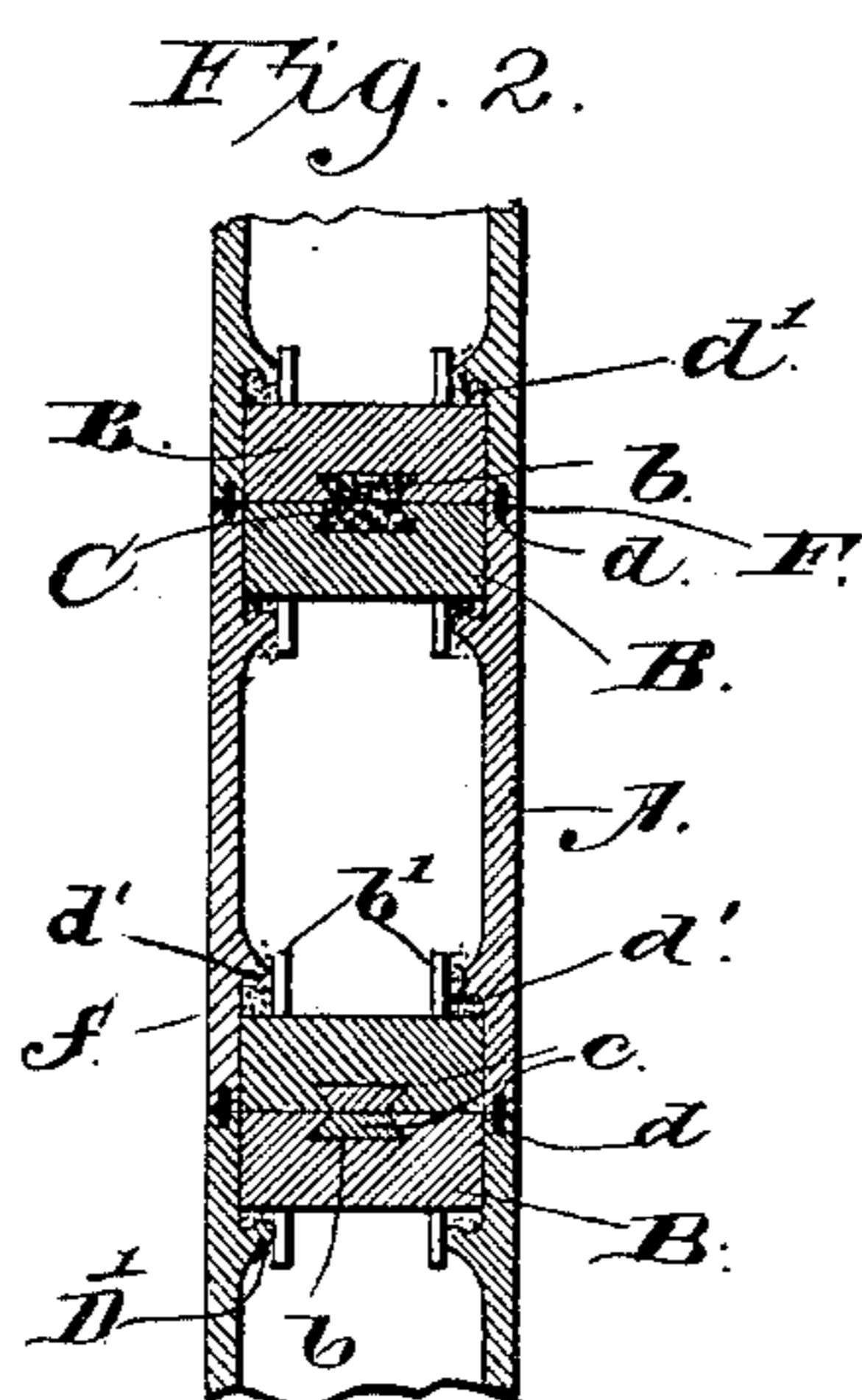
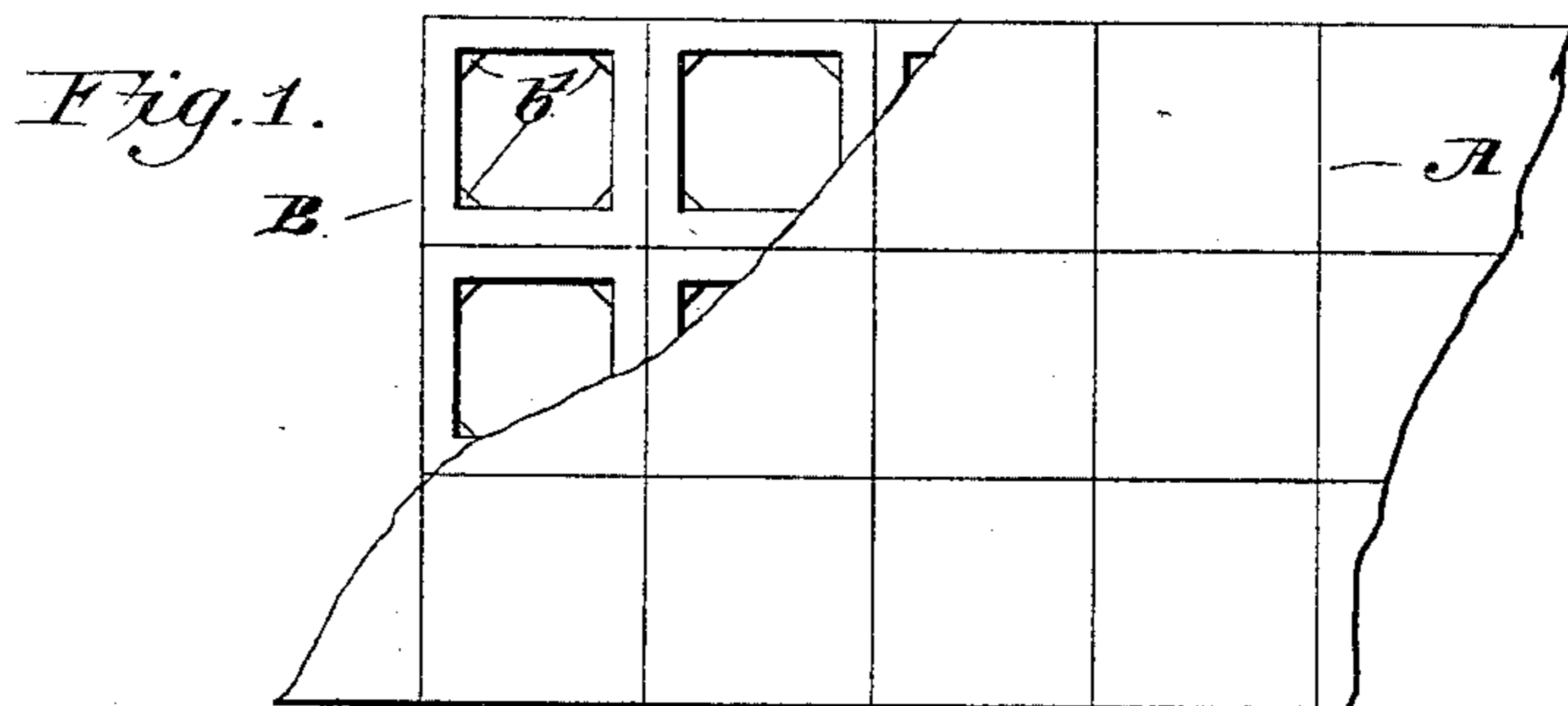


(No Model.)

W. R. RAY.
WALL FOR HOUSES.

No. 399,284.

Patented Mar. 12, 1889.



Witnesses,

M. C. Fowler.
E. J. Siggers.

Inventor,

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By his Attorneys

C. A. Snowdon

UNITED STATES PATENT OFFICE.

WILLIAM REDMORE RAY, OF LOS ANGELES, CALIFORNIA.

WALL FOR HOUSES.

SPECIFICATION forming part of Letters Patent No. 399,284, dated March 12, 1889.

Application filed October 3, 1888. Serial No. 287,036. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM REDMORE RAY, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in the Walls of Houses, of which the following is a specification.

The invention relates to improvements in the walls of houses and other structures and in certain parts thereof; and it consists in the construction and novel combination of parts hereinafter described, illustrated in the accompanying drawings, and pointed out in the appended claims.

Figure 1 of the drawings represents a face view of a part of a wall embodying the invention with part of the incasing-slabs removed to show the interior supporting-frames. Fig. 2 represents a transverse section of the same. Fig. 3 represents a vertical longitudinal section of a part of said wall to show the construction of the joints between the courses. Fig. 4 represents several of said supporting-frames shown in perspective and differing in shape.

Referring to the drawings by letter, A designates a wall the inner portion of which is composed of the supporting-frames B, laid in courses. The said frames are made of any suitable material—such as concrete or tile—and are molded into any proper shape to be fitted together in courses. Each frame B has in its periphery a surrounding groove, *b*, preferably acute-angled in cross-section, and is provided within its interior angles with the re-enforcing and supporting webs *b'*, there being two of said webs at each angle, equally distant from the sides of the frame. The supporting-frames are laid in regular courses with the grooves, which register in adjoining frames, filled in with cement or mortar C, and hoop or strap iron *c* is laid at intervals in said grooves to bind the courses, as shown.

The preferred means of connecting the slabs to the frames is as follows: The slabs are provided with surrounding peripheral grooves *d*, which register in adjoining slabs and on their inner surfaces with flanges *d'* parallel to and near the inner surfaces of the corresponding frames and inclining slightly thereto. The grooves *d* and spaces between the

flanges *d'* and supporting-frames are filled with cement, as shown at *E f*. When of such material as marble, the slabs are rabbeted instead of being grooved around their edges. When the slabs are in place, the flanges *d'* rest against the adjacent webs *b'* of the supporting-frames. The wall thus formed may be dressed or ornamented in any desired manner and the joints and screws thus hidden.

The advantages of the above construction are that the walls are light and durable, are fire, damp, and vermin proof, lathing and plastering are rendered unnecessary, much material is saved, and there is much saving of labor in building the walls. The method of walling is intended to take the place of studding in frame houses, and is preferable thereto because of its fire-proof qualities.

The cement or mortar in the acute-angled grooves *b* forms a double dovetailed binding between the courses.

Additional strength is given to the wall by introducing the hoop-iron band at intervals, placing the hoop-iron in the grooves continuously along the wall, the cross-walls being tied thereto in a similar manner.

Having described my invention, I claim—

1. A supporting-frame for the interior of a wall, molded of any suitable material—such as concrete—into any proper shape to be laid in regular courses, with similar frames and provided with a surrounding peripheral groove to register with the similar grooves in adjoining frames, and receive a suitable binding material—such as cement or mortar—substantially as specified.

2. In the wall of a house or other structure, the interior framing, composed of similar supporting-frames laid in regular courses and provided with registering peripheral acute-angled grooves, a suitable cement within said grooves, and lengths of strap or hoop iron laid at suitable intervals in said registering grooves to bind the courses together, substantially as specified.

3. In a wall, the combination of the hollow supporting-frames, molded of suitable material and in proper shape, provided with surrounding peripheral grooves and laid in regular courses with their grooves registering and filled in with a suitable cement, and incasing-

slabs corresponding in area and contour to the supporting-frames and secured thereto with their edges meeting and registering with the joints between said frames, substantially as specified.

4. In a wall, the combination, with the hollow supporting-frames B, provided with the peripheral grooves *b* and the webs *b'* in their interior angles, of the incasing-slabs D, provided with the grooves *d* and the flanges *d'*, the grooves and spaces between the flanges *d'* and supporting-frame being filled with cement or mortar, substantially as specified.

5. The hollow supporting-frames *b*, adapted to be laid in regular courses, with similar

frames, and the incasing-slabs A, to close both sides of the frames, as set forth.

6. In a wall, the hollow supporting-frames B, provided with the webs *b'* on their interior angles, combined with the incasing-slabs A, having the flanges *d'* to bear against the webs *b'*, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM REDMORE RAY.

Witnesses:

O. MORGAN,
JOHN A. WALLS.