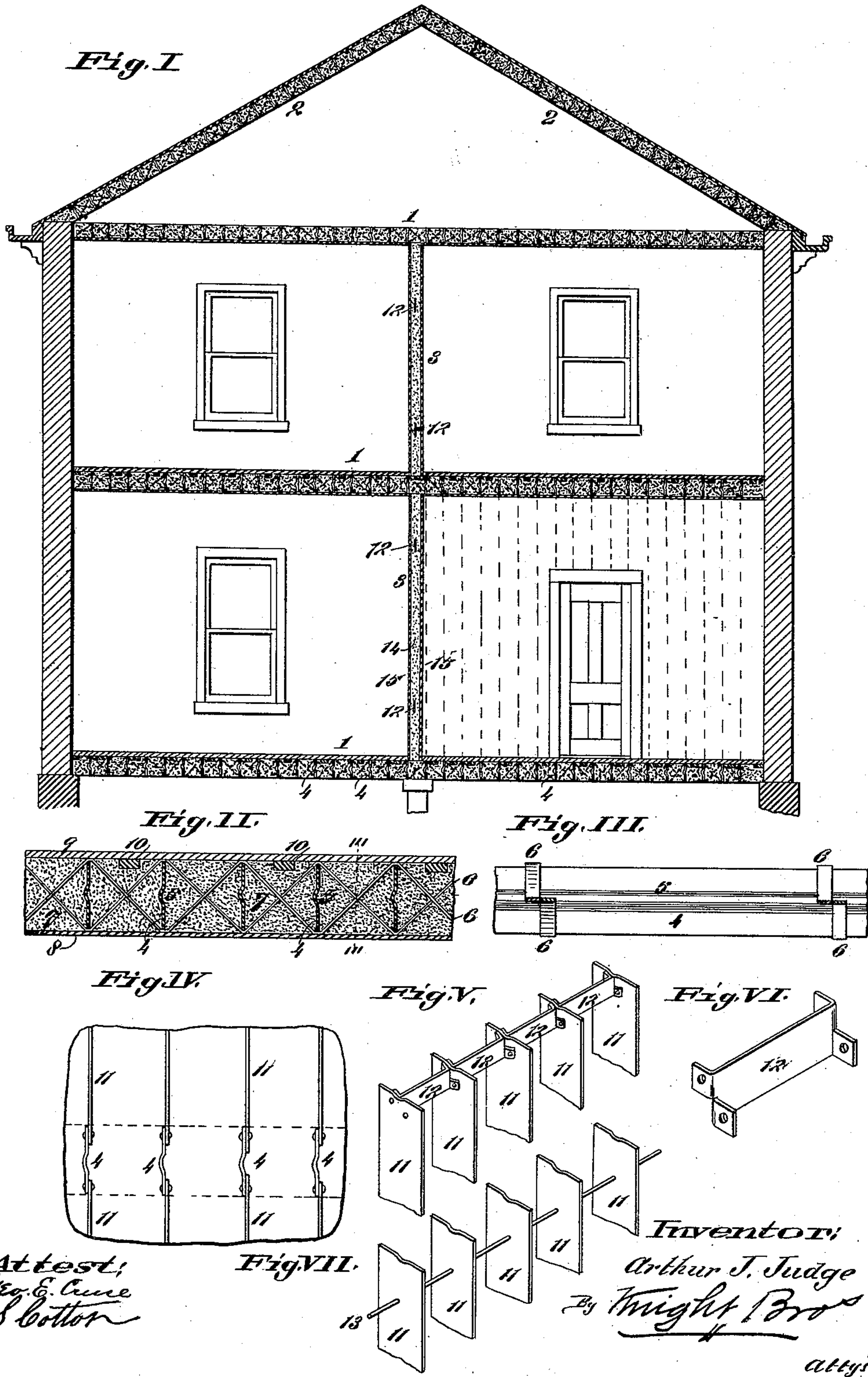


(No Model.)

A. J. JUDGE.
WALL, FLOOR, OR ROOF OF BUILDINGS.

No. 483,927.

Patented Oct. 4, 1892.



UNITED STATES PATENT OFFICE.

ARTHUR J. JUDGE, OF ST. LOUIS, MISSOURI.

WALL, FLOOR, OR ROOF OF BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 483,927, dated October 4, 1892.

Application filed October 16, 1891. Serial No. 408,953. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR J. JUDGE, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Walls, Floors, Roofs, &c., of Buildings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a cheap and effective fireproof structure for the partition-walls, floors, partitions, roofs, &c., of a building; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a vertical section of a building illustrative of my invention. Fig. II is an enlarged detail vertical section of one of the floors. Fig. III is a detail section taken on line III III, Fig. II. Fig. IV is a detail view showing a manner of securing the metallic strips of the partition-walls to the metallic strips of the floor. Fig. V is a detail perspective view showing a manner of securing the strips of the partition-walls together, and Fig. VI illustrates in an enlarged perspective view one of the connecting-bars shown in Fig. V. Fig. VII is a detail perspective view illustrating a modification of the manner of connecting the strips.

Referring to the drawings, 1 represents the floors, 2 the roof, and 3 the partition or walls, of a building. To the manner of making these my invention relates.

The floors are composed of a number of horizontal metal strips 4, which are preferably corrugated or indented, as shown at 5. They are placed any suitable distance apart, as illustrated in Figs. I and II, and are braced or held in position by means of bars or wires 6, (see Figs. II and III,) which are woven back and forth beneath and above the strips, as shown. These bars 6 are preferably arranged in pairs, as shown in Fig. III, the pairs being any suitable distance apart. After the plates have been put in place and the bars 6 applied

a filling 7, of any suitable form of grouting or concrete, is filled in between them, which, when it becomes hardened, forms a permanent and thoroughly fireproof floor, the under surface of which may be plastered to form a ceiling 8, and the upper surface of which may be covered with a facing 9 of boards, forming the surface of the floor. The facing 9 may be held in place by attaching it to strips 10, embedded in the grouting or concrete 7, as shown in Fig. II. By corrugating the strips 4 a more perfect union between them and the grouting is obtained.

The partition or walls 3 are composed of a number of vertical metal strips 11, (see Figs. V and VII,) which are connected by short bars 12, riveted thereto, or by rods 13, passed through perforations therein. These strips are also preferably corrugated, as shown, and when arranged in place a grouting or concrete 14 is filled in between them, as shown in Fig. I, upon which a coat of plaster 15 may be placed. The strips 11 are placed with their edges toward the rooms of the building which they divide, as indicated by dotted lines in the lower left-hand corner of Fig. I, and these strips may be attached to the strips 4 of the floor by a rivet connection, as shown clearly in Fig. IV.

The roof 2 of the building is made in the same manner as the partition or walls 3, and I thus construct in a cheap and durable manner a thoroughly fireproof structure.

I claim as my invention—

1. A building floor, partition, wall, or roof composed of independent corrugated strips placed a distance apart and a grouting, substantially as set forth.

2. A building floor, partition, wall, or roof composed of corrugated strips, retaining-bars, and a grouting, substantially as set forth.

ARTHUR J. JUDGE.

In presence of—

E. S. KNIGHT,
A. M. EBERSOLE.