

No. 612,733.

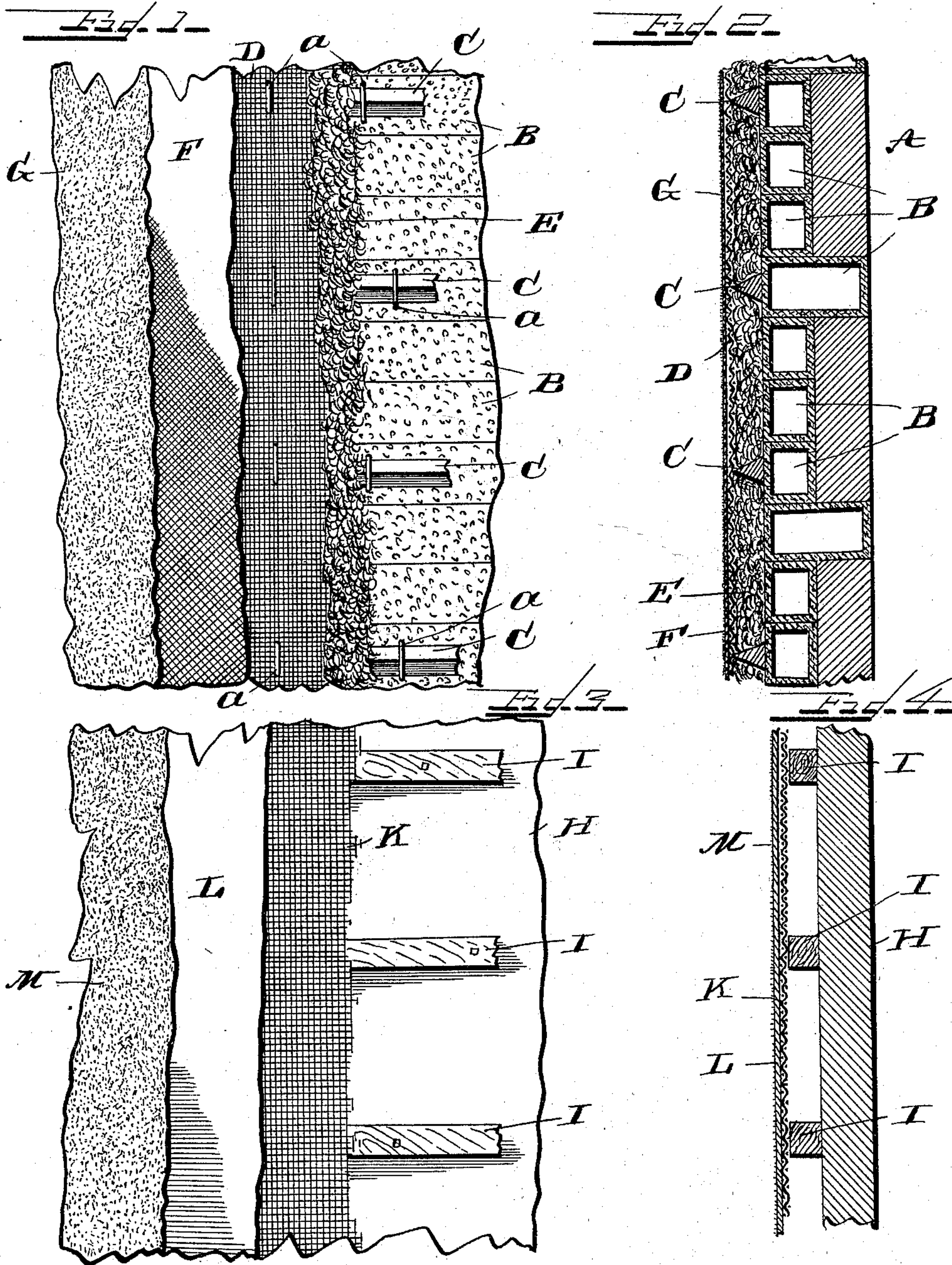
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E. H. KELLY.

SOUND DEADENING WALL FOR BUILDINGS.

(Application filed Apr. 9, 1898.)

(No Model.)



Witnesses—

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UNITED STATES PATENT OFFICE.

EUGENE HENRI KELLY, OF BUFFALO, NEW YORK.

SOUND-DEADENING WALL FOR BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 612,733, dated October 18, 1898.

Application filed April 9, 1898. Serial No. 677,016. (No model.)

To all whom it may concern:

Be it known that I, EUGENE HENRI KELLY, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Sound-Deadening Walls for Buildings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the science of acoustics, and has for its object the preparation of walls and ceilings of buildings to absorb the sound-waves; and it consists in certain improvements in construction which will be fully disclosed in the following specification and claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a front elevation, partly in section, of my invention; Fig. 2, a vertical transverse section; Fig. 3, a front elevation, partly in section, of a modified construction; and Fig. 4, a vertical transverse section of the same.

Reference being had to the drawings and the letters thereon, A indicates the permanent wall of a building; B, porous terra-cotta hollow tiles, which may be embedded in the wall in the course of construction, or they may be secured thereafter by any suitable means and form a foundation or base upon which the remaining parts of the dead wall are constructed, and also by virtue of its porosity forms a sound-absorbing body or stratum in the structure.

C are metallic laths, in this instance V-shaped in transverse section, but any other form may be used. The laths are spaced about twelve inches apart and secured to the foundation by staples *a* or by nails.

D indicates wire-cloth, preferably galvanized and of about three-eighths of an inch mesh and is secured to the laths.

E indicates a stratum of closely-packed mineral wool or asbestos fiber, in this instance placed between the foundation and the wire-cloth, filling the space.

F indicates a layer or stratum of heavy unbleached factory-cloth which is stretched taut across the wire and secured in any suitable manner, as by nails extending into the foundation.

G indicates the finished surface, which is formed by painting or coating the layer F and

applying short fiber, such as asbestos or clipped wool, thereto by an air-blast while the paint is fresh, and forms a surface from one-sixth to one-fourth of an inch thick which the sound-waves readily penetrate and are absorbed thereby. This construction is especially designed for fireproof structures and new buildings.

In Figs. 3 and 4 I have shown a modification of this construction. H indicates the wall, to which are secured strips I, of wood, about one inch square and set about twelve inches apart and secured by nails to form a foundation. K indicates the wire-cloth, which is secured to the strips I, and upon the wire-cloth is secured a stratum L of heavy building deadening-felt, and M indicates the finished surface directly upon the felt and is of the same material and made in the same manner as the surface G in Figs. 1 and 2.

The sound-deadening wall forms a lining to the wall of the building with a velvet or floss-like surface, which may be of any color or design desired and produces a pleasing effect to the eye.

Having thus fully described my invention, what I claim is—

1. A sound-deadening wall, consisting of a stratum of fibrous material secured to the permanent wall out of contact therewith and an outer sound-absorbing surface of floss-like fibrous material.

2. A sound-deadening wall, consisting of a stratum of fibrous material secured to the permanent wall out of contact therewith, a layer of wire-cloth and an outer sound-absorbing surface secured by an adhesive substance.

3. A sound-deadening wall, consisting of a stratum of fibrous material, a support therefor, an outer sound-absorbing fibrous surface and means for securing the same to a permanent wall.

4. A sound-deadening wall, consisting of a foundation of porous terra-cotta, a stratum of fibrous material, a layer of wire-cloth, an outer sound-absorbing surface and means for securing the same to a permanent wall.

In testimony whereof I affix my signature in presence of two witnesses.

EUGENE HENRI KELLY.

Witnesses:

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