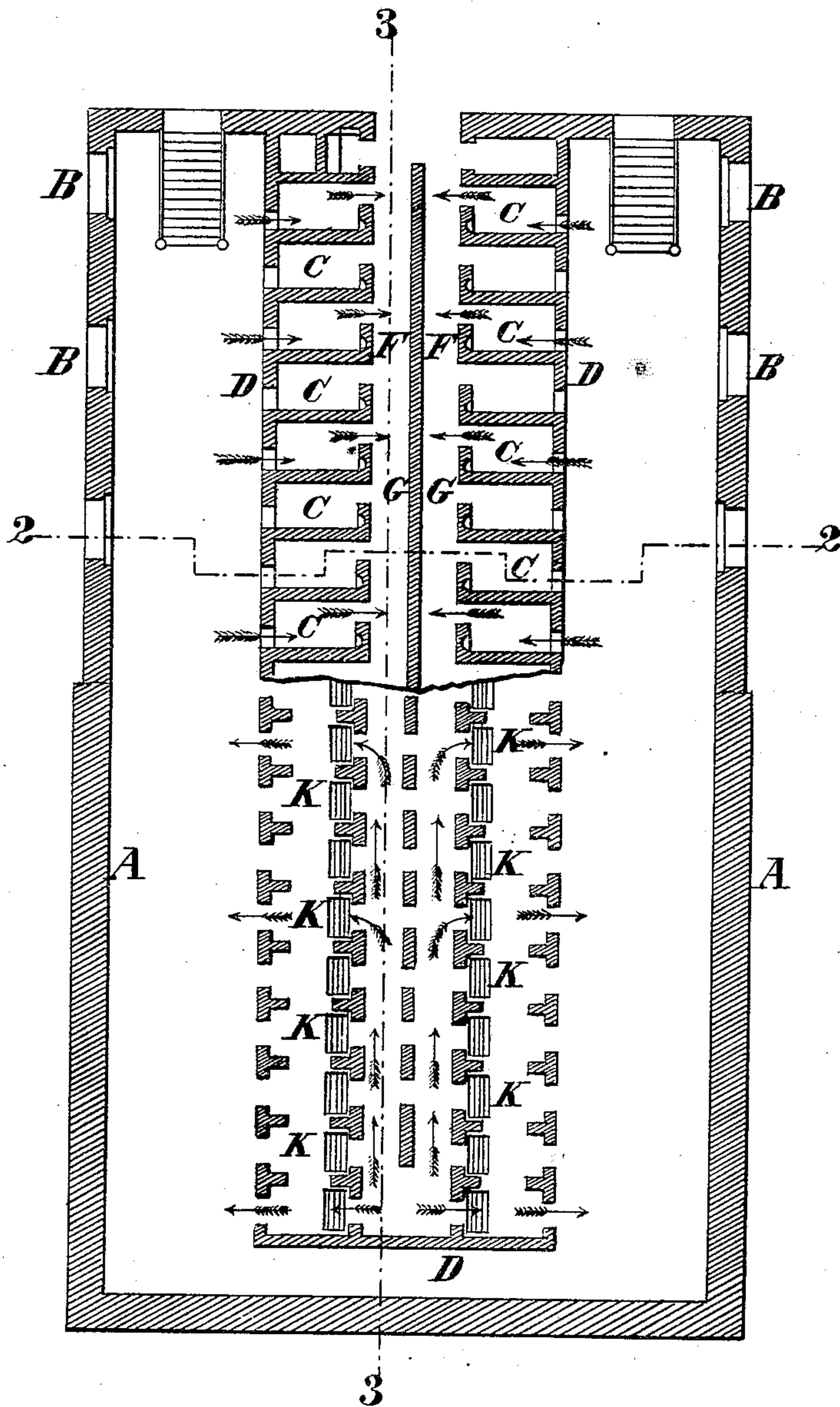


A. B. MULLETT.  
Construction of Prisons.

No. 158,966.

Patented Jan. 19, 1875.

FIG. 1.



WITNESSES

*Jas. L. Swin  
 Henry Tanner*

INVENTOR

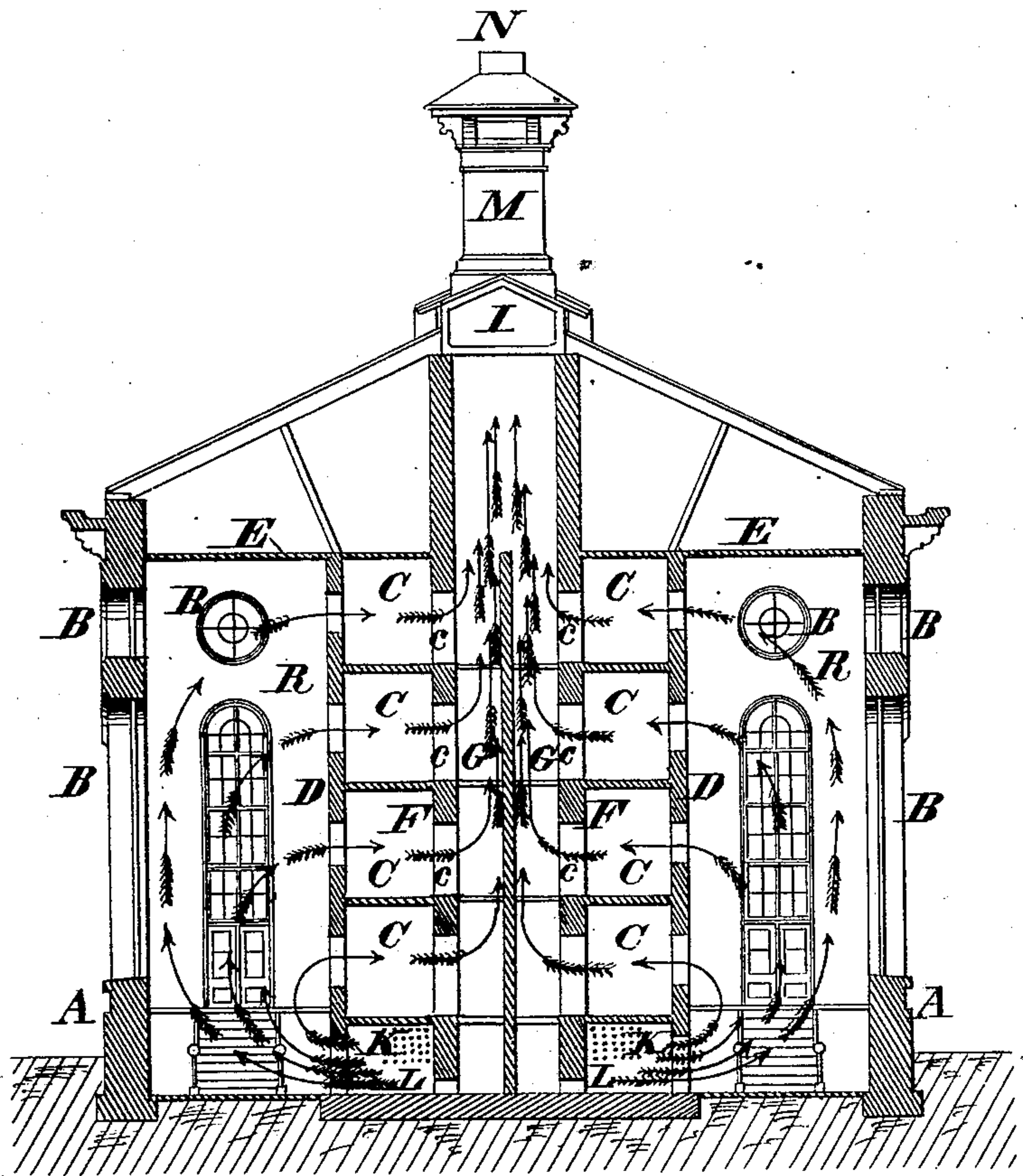
*Alfred B. Mullett  
 By Knights Attorneys.*

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**Construction of Prisons.**

No. 158,966.

Patented Jan. 19, 1875.

**FIG. 2.**



WITNESSES

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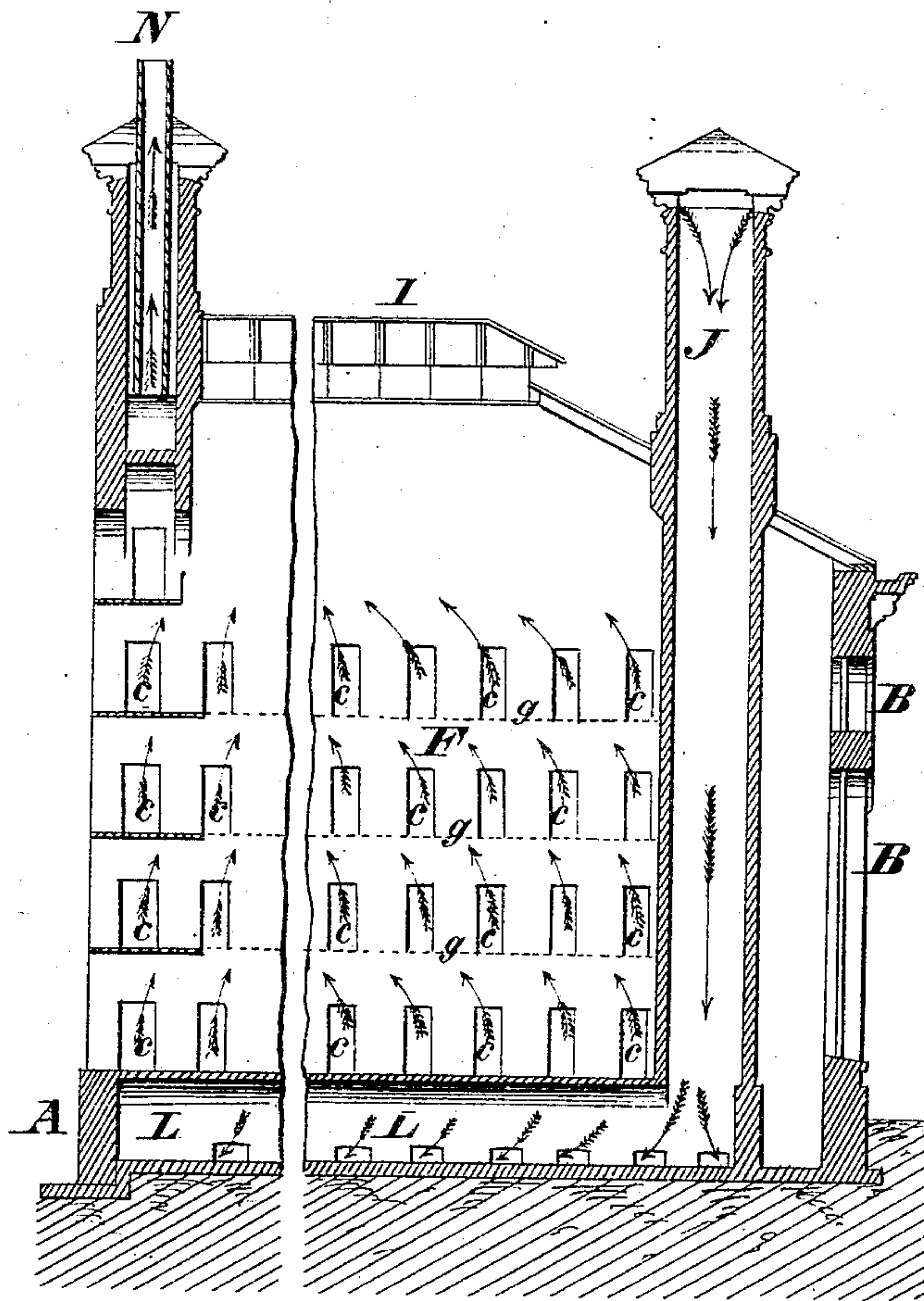


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Patented Jan. 19, 1875.

*FIG. 3.*



WITNESSES

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# UNITED STATES PATENT OFFICE.

ALFRED B. MULLETT, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN THE CONSTRUCTION OF PRISONS.

Specification forming part of Letters Patent No. **158,966**, dated January 19, 1875; application filed December 16, 1874.

*To all whom it may concern:*

Be it known that I, ALFRED B. MULLETT, of Washington, in the District of Columbia, have invented certain new and useful Improvements in the Construction of Prisons, and in Warming, Ventilating, and Lighting the same, of which the following is a specification:

In my improved construction of prisons the cells are raised upon arches, piers, or other suitable supports, and constitute an inner structure or building flanked on each side by a single guard-room extending throughout the length of the building, and from the base thereof to the top of the upper story of cells. The cells face toward the center, opening upon corridors constructed with grated floors, and divided by a central partition-wall, so that grated doors may be employed without permitting any communication between the occupants of the opposite cells. Light is admitted to the corridors through a ventilating skylight above, and passes downward through the grated-corridor floors. The first tiers of cells are raised above the floor on arches or other supports, in order to provide, first, for the reception of the radiators, which may be of any preferred construction, and supplied from any kind of heating apparatus; and, secondly, to provide an additional security by rendering it impossible for prisoners to escape by tunneling under the main walls. The entire structure is so arranged that the heated air will pass from these radiators into the guard-rooms; thence through the windows into the cells, and through the grated doors of the cells into the corridors, and up through the grated floors of the corridors, and out through the ventilating sky-light at top, thus insuring thorough ventilation. The air for ventilation and heating is preferably introduced, for additional security against escape, from a high altitude through a downcast shaft connecting with the chambers which contain the heating-coils or radiating apparatus. A special stack is employed to ventilate the sinks and closets, the ventilation of which is forced by the heat radiated from the smoke-flue of the furnaces, which is carried through this stack, and a strong upward current obtained thereby.

In the accompanying drawings, Figure 1 is a horizontal section of a structure illustrating

my invention, the plane of section in one part being through the basement to exhibit the heating apparatus, in the other through one of the upper stories. Fig. 2 is a longitudinal section of the same on the line 2 2, Fig. 1. Fig. 3 is a transverse section on the line 3 3, Fig. 1.

A A represent the external walls of the building, which are provided with windows B B of sufficient number and capacity to afford ample light. C C represent the cells, the outer walls D of which are at some distance from the external walls A of the structure, leaving between the said walls A and D a continuous open space, R, from the lower floor to the level of the ceiling E of the upper story of cells. Said spaces R constitute the guard-rooms of the prison. In the present illustration four stories of cells are represented. Between the inner walls F F of the cells are corridors G, separated by the longitudinal central wall H. I represents a ventilating sky-light, for the admission of light and the discharge of vitiated air. J represents a downcast shaft for the introduction of pure air to be heated, or admitted without heating, as the season may require. The heating apparatus consists of coils K or radiators of any preferred form, located in the basement under arches L, on which the lower tiers of cells are raised in suitable position to cause the air entering through the shaft J to pass in contact with the said coils. A separate shaft, M, is provided for the discharge of foul air from the sinks and closets. In this shaft M the flues N of the heating apparatus are carried upward, so as to make a strong draft.

The operation and advantages are as follows: From the foregoing description it will appear that while ample light and air, as well as comfortable warmth, are afforded to the cells, it is impossible for their occupants to communicate with one another through either doors or windows. It will also appear that it is impossible for any prisoner to escape either through the walls or floor of his cell without coming into the guard-rooms, instead of into the outer air, as in prisons of ordinary construction. The arches L, on which the lower tiers of cells are raised, effectually prevent any tunneling operations, even by the occupants of the lower cells.



It will also appear that the air for ventilation and heating passing from the arches L to the guard-rooms R can reach the corridors G, and can escape only by passing through the cells C. This arrangement insures an effective ventilation and heating of all the cells. The low openings *l*, through which air is admitted at the back of the arches L, are of insufficient capacity to permit the passage of any escaping prisoner into the basement-corridor in the event of his penetrating the floor of one of the lower cells. The sky-light I, the grated floors *g* of the corridors, and the grated doors *c* of the cells afford ample light in addition to that which enters the cells through their windows, which open upon the external guard-rooms R.

The following is claimed as new in this invention, namely:

1. The combination of the two ranges of cells

with a double corridor occupying the space between the said ranges of cells, and divided by a partition-wall, serving to prevent communication, while permitting the use of grated doors to the cells.

2. The arches or vaults arranged beneath the cells to contain heating apparatus and prevent tunneling.

3. The combination of the air ducts and passages J / L with the guard-rooms R, cells C, corridors G, and ventilating sky-light I, arranged, substantially as herein set forth, to compel the air to traverse the cells in its passage from the ventilating and heating vaults below to the ventilating sky-light above.

A. B. MULLETT.

Witnesses:

OCTAVIUS KNIGHT,  
WALTER ALLEN.