

G. H. MAETZEL.
Jail or Prison.

No. 229,540.

Patented July 6, 1880.

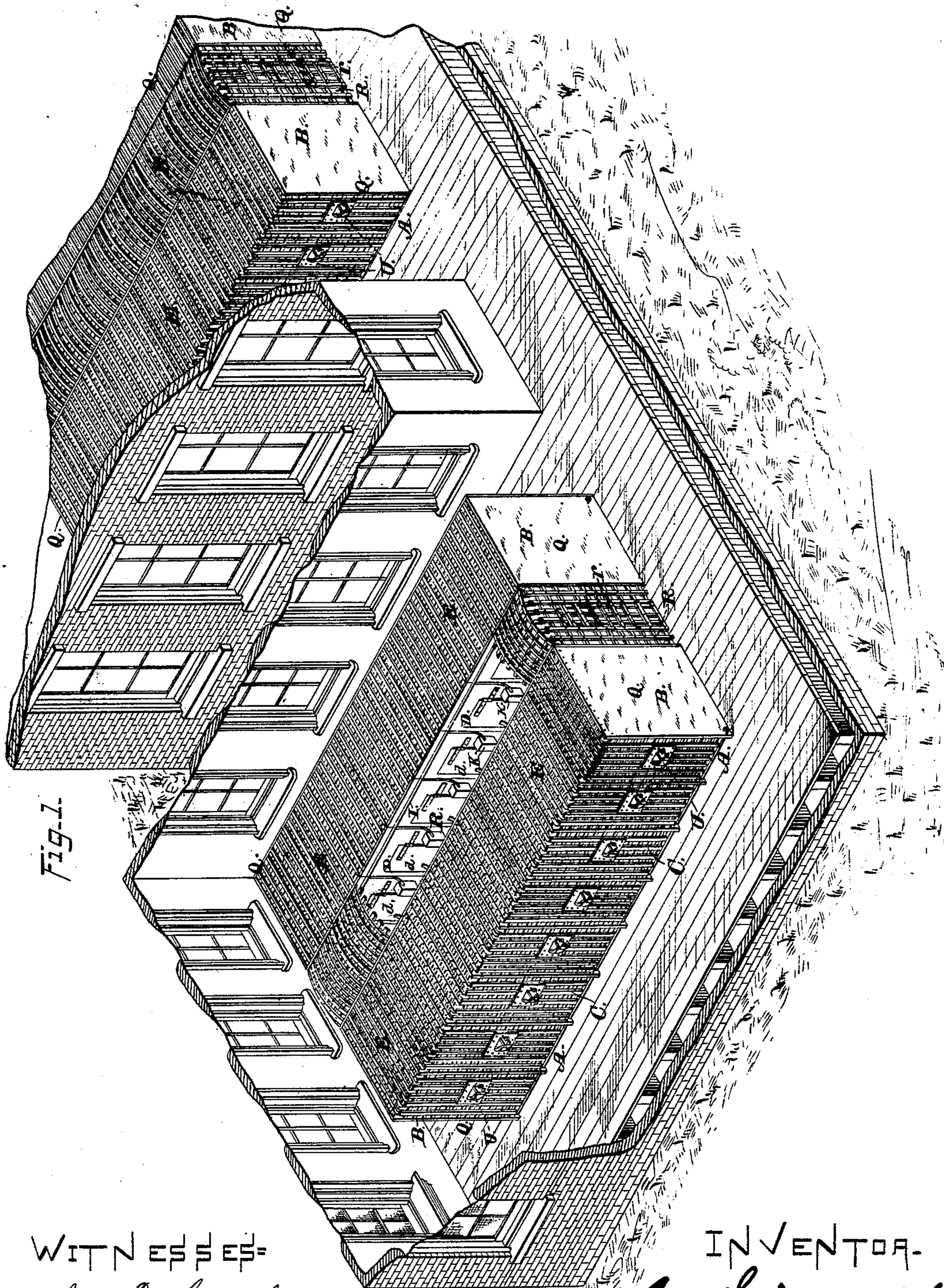


Fig. 1.

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 Henry C. Hazard.

INVENTOR.

Geo. H. Maetzel, by
 Geo. S. Quindle, his Atty.

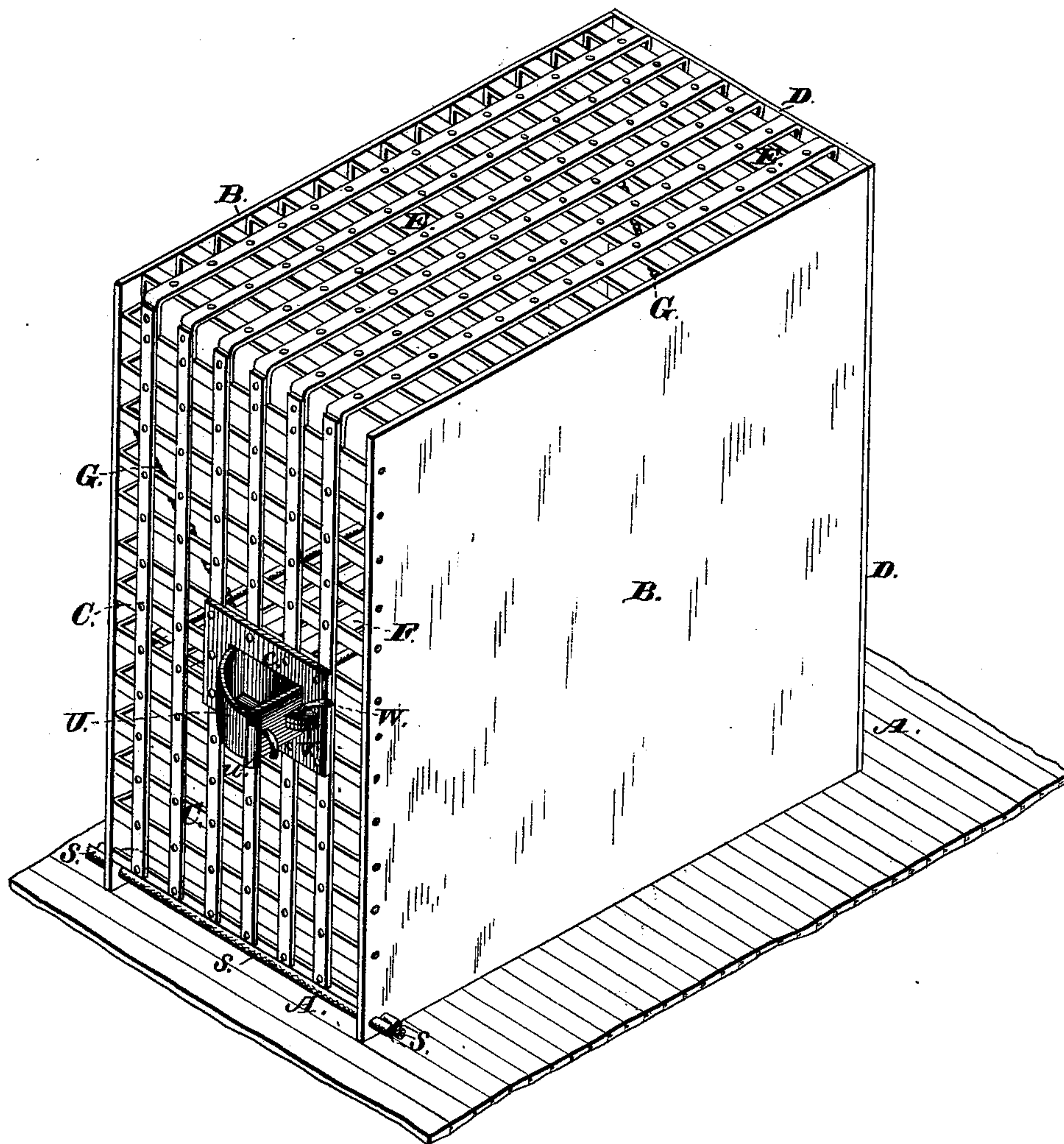
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Fig. 2.



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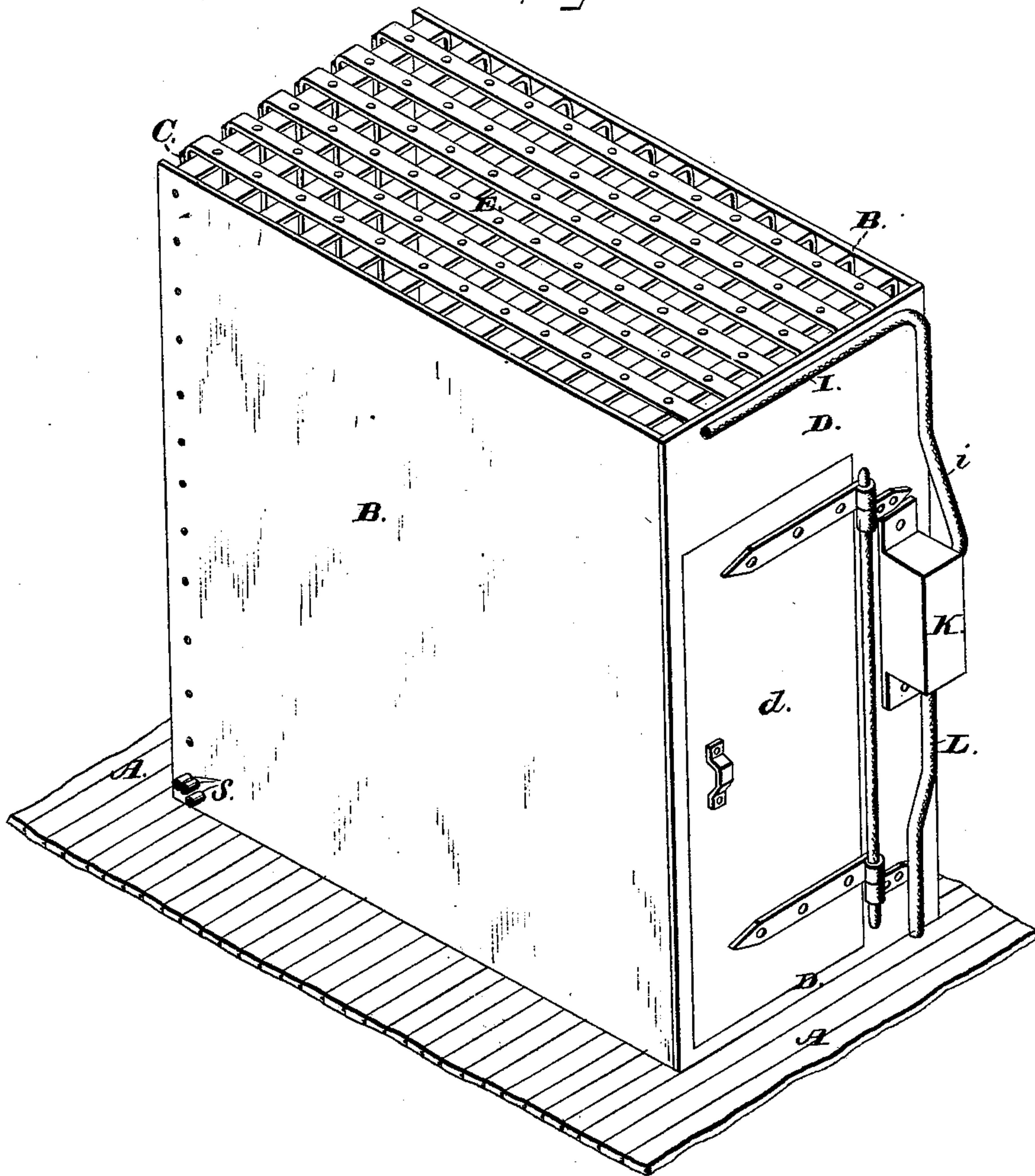
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Fig. 3.



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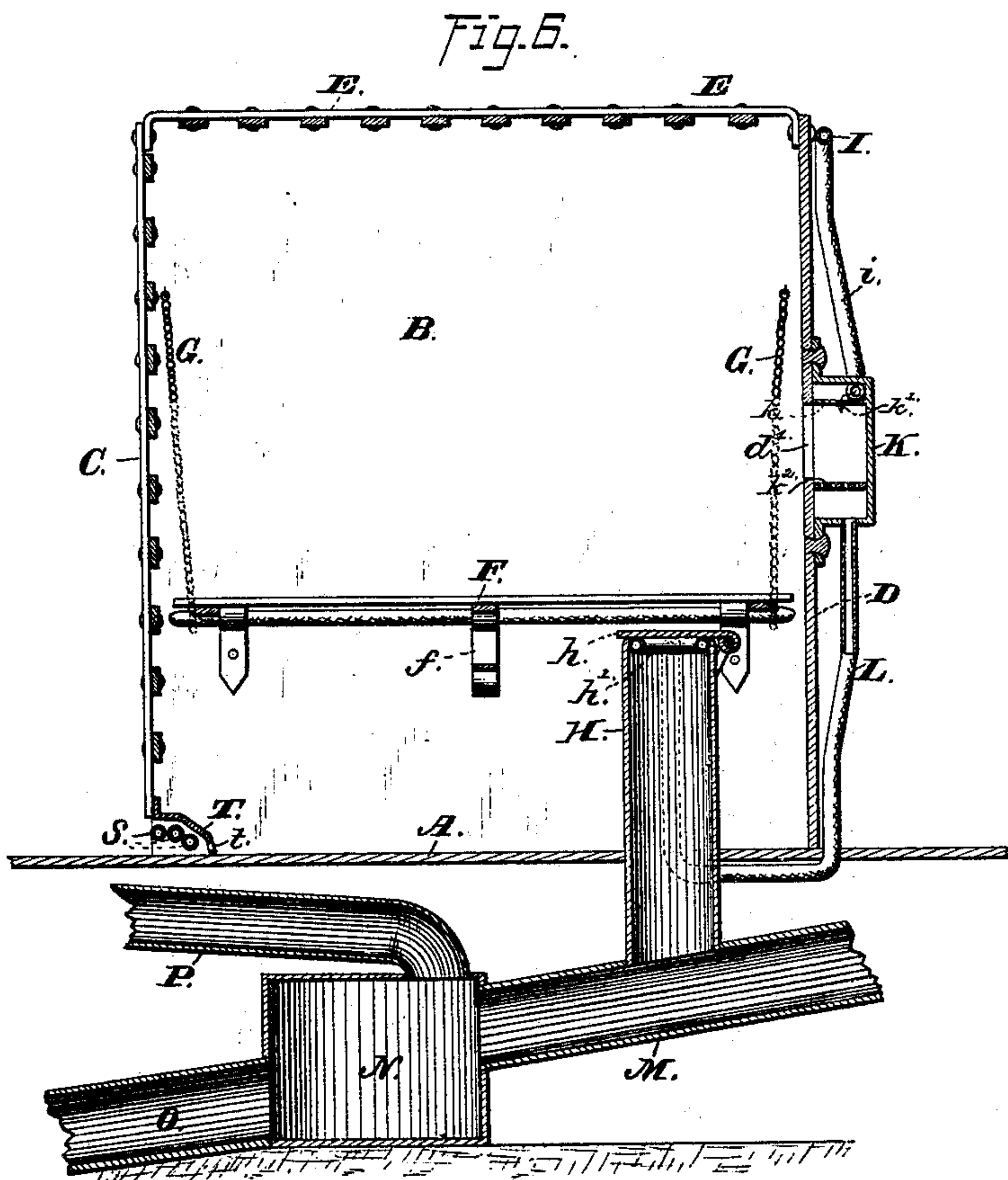
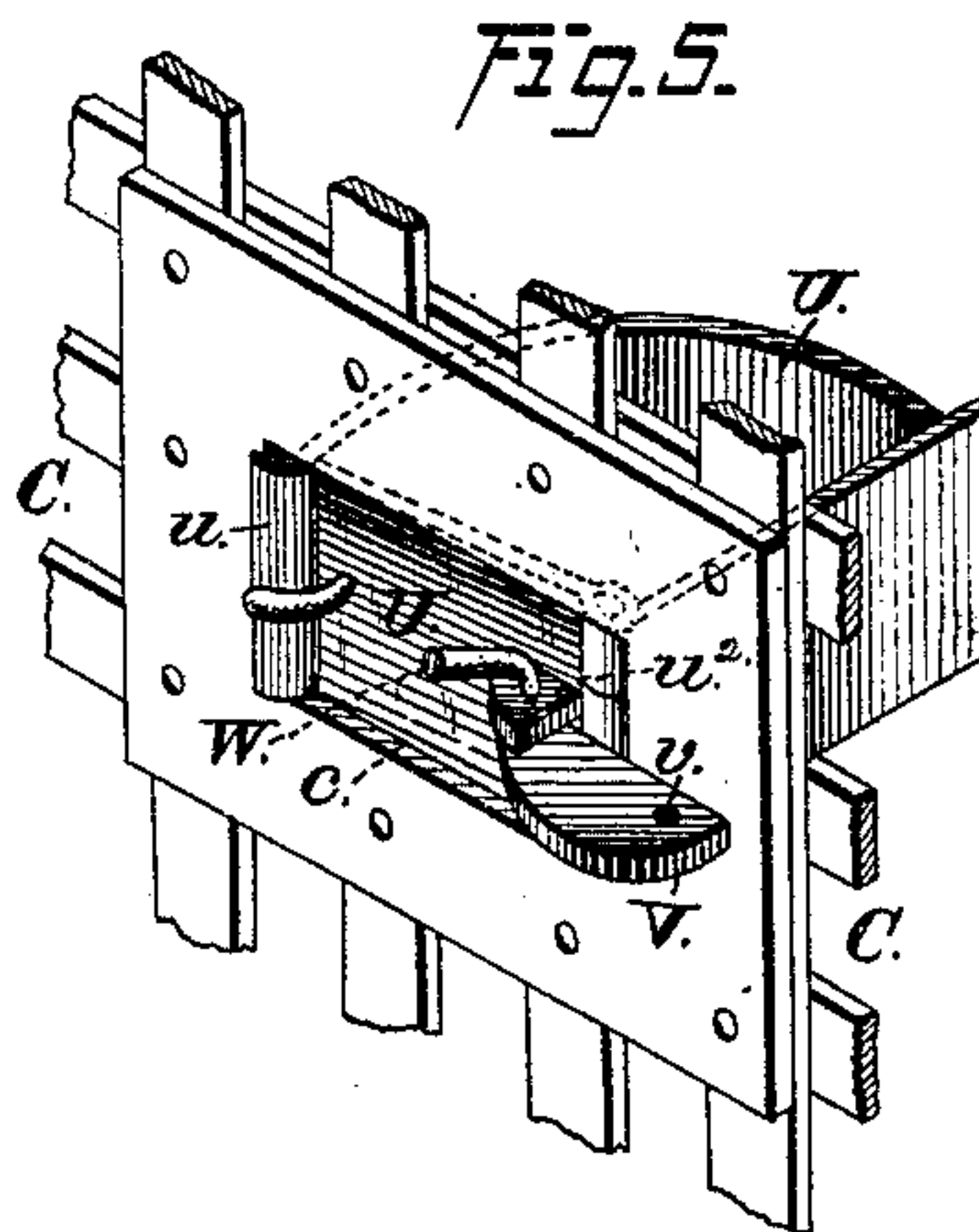
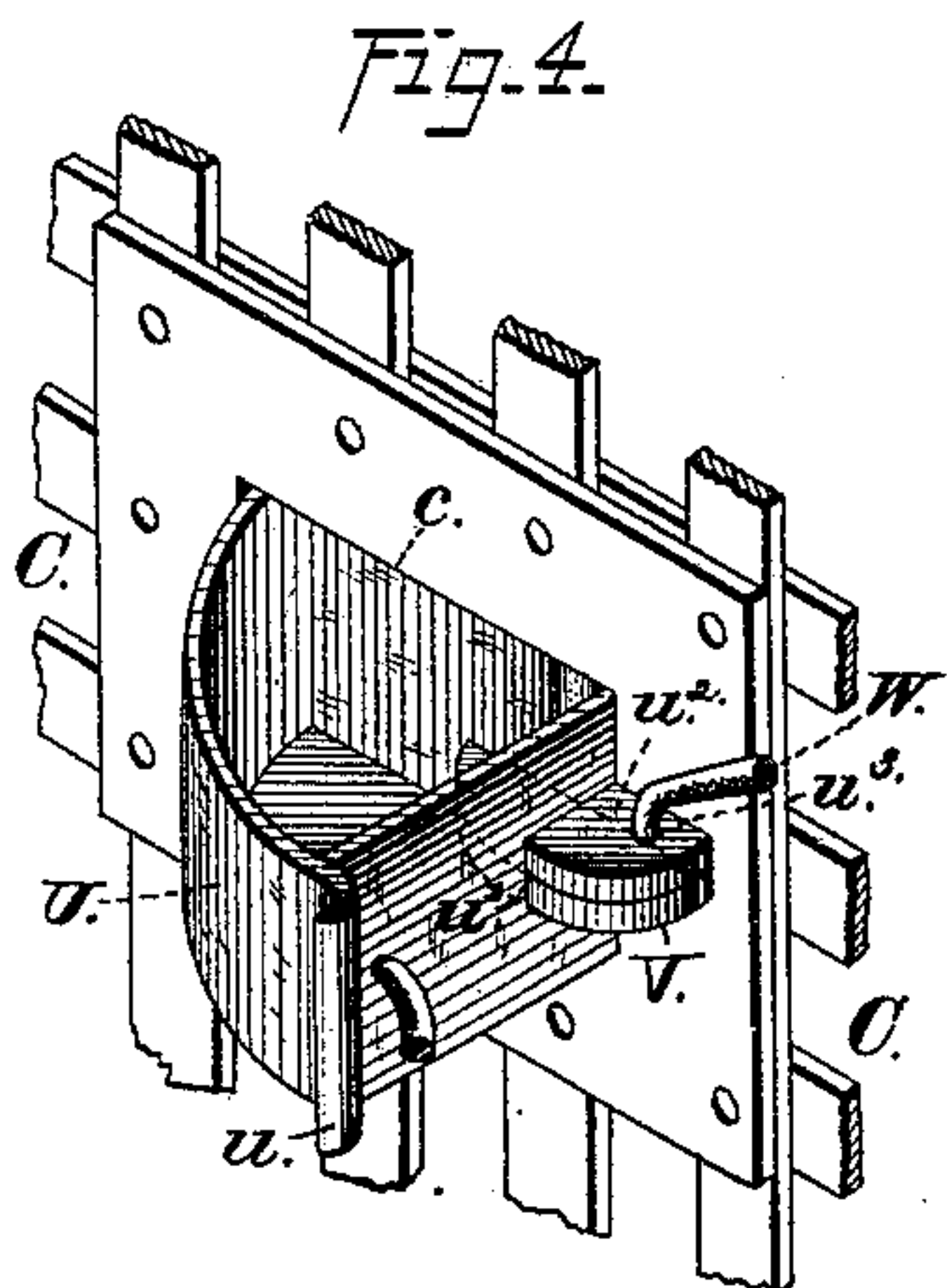
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UNITED STATES PATENT OFFICE.

GEORGE H. MAETZEL, OF COLUMBUS, OHIO.

JAIL OR PRISON.

SPECIFICATION forming part of Letters Patent No. 229,540, dated July 6, 1880.

Application filed February 27, 1880.

To all whom it may concern:

Be it known that I, GEO. H. MAETZEL, of Columbus, in the county of Franklin, and in the State of Ohio, have invented certain new and useful Improvements in Jails or Prisons; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—
10 Figure 1 is a perspective view of one floor of a prison with its cells arranged in accordance with my plan. Fig. 2 is a perspective view of one of my improved cells from its front end. Fig. 3 is a like view of the same from
15 its rear end. Figs. 4 and 5 are enlarged perspective views of the feed-pocket used for passing food into the cell, and show, respectively, said pocket withdrawn from and turned into said cell; and Fig. 6 is a longitudinal section of said cell, showing the means employed
20 for heating, supplying water, removing sewage, and ventilating the sewer.

Letters of like name and kind refer to like parts in each of the figures.

25 The design of my invention is to increase the strength, safety, comfort, and healthfulness of city prisons; to which end it consists, principally, in arranging cells in double rows, separated by a corridor, which is inclosed overhead and at its ends by grating, and upon
30 which the abutting ends of said cells are constructed with close ends, that are each provided with a door, substantially as and for the purpose hereinafter specified.

35 It consists, further, in combining with a cell a box opening into or through one of its walls, and connected at its upper end with a water-supply and at its lower end with a waste-pipe, substantially as and for the purpose hereinafter
40 shown.

It consists, further, in combining with a cell a water-closet, which is connected with the waste-pipe of a water-supply box, substantially as and for the purpose hereinafter set
45 forth.

It consists, further, in combining with a cell a water-closet arranged beneath a hinged bunk, and inclosed by means of a cover, which can only be opened when said bunk is raised, substantially as and for the purpose hereinafter
50 shown and described.

It consists, further, in the means employed for passing food into the cell, substantially as and for the purpose hereinafter specified.

It consists, further, as a means for warming 55 a cell, in steam-pipes arranged horizontally beneath a perforated guard-plate, beneath which air may pass around said pipes and enter said cell, substantially as and for the purpose hereinafter shown. 60

It consists, finally, in a bunk hinged to one side of a cell, and sustained in a horizontal position by means of chains attached to its ends and to said wall, and a brace or bracket attached to its lower side, at its center, and
65 impinging upon said wall, substantially as and for the purpose hereinafter set forth.

In the annexed drawings, A represents the floor, B and B the side walls, C the front end, D the rear end, and E the top, of my improved 70 cell.

The floor A and side walls, B, are formed of solid plates of metal. The rear end, D, is also formed of solid plates of metal, but is provided with a door, *d*, through which entrance to the 75 cell is effected, while the front end, C, and the top E are formed of two series of bars of metal arranged at right angles to each other, and riveted together at their points of intersection, so as to form open gratings. 80

Hinged at one edge to one of the side walls, B, within the interior of the cell, is a bunk, F, formed of longitudinal and cross bars of metal, which is capable of being turned upward against said wall when not in use, and of being 85 turned downward to a horizontal position for use, in which latter position said bunk is supported by two chains, G, one of which is attached to each outer corner, and from thence extends upward to and is attached to said 90 wall.

A further support for the bunk F, when arranged horizontally, is afforded by means of a triangular bracket, *f*, which is secured upon its lower side at its longitudinal center and 95 has its vertical side in contact with the wall B. Directly beneath one end of the bunk F is provided a water-closet, H, which communicates with a sewer beneath the floor A, and is inclosed at its upper end by means of a 100 hinged cover, *h*, that can only be raised when said bunk is turned upward against the wall

B, and which when raised prevents said bunk from being turned downward to a horizontal position.

Water for use in the cell is supplied from a pipe, I, which extends along the upper side at the rear end, D, and is provided with a branch, *i*, that extends downward to and enters an oblong box, K, at one side, near its upper end. The box K is open upon the side next to the cell end D, and is secured in place upon the same directly over an opening, *d'*, that is provided in said end.

Immediately below the point at which the pipe *i* enters the box K, is placed a horizontal plate, *k*, which at its center is provided with a funnel-shaped opening, *k'*, through which water discharged from said pipe may pass downward, while near the lower end of said box is secured a horizontal perforated plate, *k*², that serves as a grating to prevent anything but water from passing downward, and also furnishes a support for a drinking-cup.

From the lower end of the box K a pipe, L, passes downward beneath the floor A, and thence to the upper end of the closet H, where it connects with an annular pipe, *h'*, that is secured to the inner side of said closet, and is provided with perforations that permit water to escape downward and outward, so as to wash the sides of the hopper. As thus arranged the waste-water, which would not otherwise be utilized, serves to prevent the fouling of the water-closet, and renders the same pure and clean.

The water-closet H opens directly into a sewer-pipe, M, which passes beneath the cells and empties into a receiver, N, that has any desired shape or dimensions. From said receiver a discharge-pipe, O, extends to a suitable point, and has its outer end sealed against the passage of air or gas, while from the upper side of said receiver a pipe, P, passes to and connects with a heated ventilating-flue, the arrangement being such as to cause an inward current of air to be maintained through each water-closet and the sewer-pipes to be kept free from all gas.

The sewer-ventilation described is not claimed herein, as it forms the subject of another application for patent.

In order that perfect security may be obtained and the occupants of the cells may be permitted to have such exercise as is necessary for health, I arrange said cells in two rows, Q, with their rear ends inward, and between said ends form a corridor, R, that is inclosed at its upper side, and if desired at its ends, by means of metal grating. At one or both ends of said corridor is provided a door, *r*, that affords admittance thereto.

When a prisoner is to be taken to his cell he will pass into the corridor and along the rear closed ends of the cells, and will neither see the occupants of the latter or be seen by said occupants, and when once in his cell will be doubly secure, as he must not only force or

unlock the door of the same, but must pass in the same manner the corridor-door before he can be in position to attack the other fastenings of the building.

The fronts of each row of cells are separated by a passage from the outer wall of the building, which wall is provided with windows for the admission of light and air.

As thus arranged each cell is fully open to inspection by the janitor and is abundantly supplied with light and air; but none of its occupants can see any person confined in one of the other cells, and perfect seclusion is effected for those who do not wish to be known to their neighbors.

The cells are warmed by means of steam-pipes S, several of which pass horizontally near the floor A just within the line of the front wall, C, of each cell.

In order that actual contact with the pipes S may be prevented and the inmates of the cells may be prevented from fouling the air by spitting upon said pipes, a plate of metal, T, is secured at one edge to or upon the lower portion of the cell end C, and from thence extends rearward over said pipes, and thence downward to the floor A, to which it is also secured. Within the rear vertical portion of said plate T are provided a series of perforations, *t*, through which air may freely pass, the arrangement being such as to cause a constant circulation of air beneath said plate and around said pipes and the consequent warming of said air.

Food for the inmates of the cells is conveyed to them by means of a metal box or pocket, U, which has the form of a segment of a circle, is open at its upper side, and is hinged or pivoted at its inner corner to the front wall, C, of the cell, within an opening, *c*, that is substantially filled by said pocket.

The pocket U is free to turn upon its pivotal bearing, so as to be wholly within or without the cell, and is prevented from passing beyond the points necessary to bring its side walls into the opening *c* by means of a flange or lug, *u*, which extends forward from and upon a line with said walls.

In order that the pocket U may be locked in position when opened or closed, a lug, V, is secured upon the face of the cell-wall C at the hinged corner of said pocket, and extends for a short distance horizontally outward and laterally across the opening *c* and into a corresponding opening, *u'*, that is provided within the contiguous side of said pocket. A lug, *u*², is secured to and projects laterally over said lug V, and is provided with a vertical opening, *u*³, which, when said pocket is turned to either limit of its motion, coincides with a similar opening, *v*, that is provided in said lug V, and permits a pin, W, to be inserted therein, said pin operating as a lock and preventing movement in either direction.

The cell thus constructed furnishes perfect security against the escape of an occupant, is

convenient both for said occupant and his keeper, is easily warmed and thoroughly ventilated, and is not liable to become foul.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. As an improvement in jails or prisons, cells arranged in double rows and separated by a corridor which is inclosed overhead and at its end by a grating, and upon which the abutting ends of said cells are made close and provided each with a door, substantially as and for the purpose specified.

2. In combination with a cell, a box opening into or through one of its walls, and connected at its upper end with a water-supply and at its lower end with a waste-pipe, substantially as and for the purpose shown.

3. In combination with a cell, a water-closet which is connected with the waste-pipe of a water-supply box, substantially as and for the purpose set forth.

4. In combination with a cell, a water-closet arranged beneath a hinged bunk and inclosed by means of a cover which can only be opened when said bunk is raised, substantially as and for the purpose shown and described.

5. In combination with the wall C, provided with the opening *c*, the segmental pocket U,

having the lug or stop *u*, the opening *u'*, and the lug *u*² *u*³, the lug V, provided with the opening *v*, and the pin W, said parts being arranged substantially as and for the purpose specified.

6. As a means for warming the cell, and in combination therewith, the pipes S, arranged horizontally along the floor A, at or near the front wall, C, and the guard-plate T, placed above and in rear of said pipes and provided at its rear side with perforations *t*, for the rearward passage of heated air, substantially as shown.

7. In combination with a cell, a bunk hinged to one side of the same, and sustained in a horizontal position by means of chains attached to its ends and to said wall, and a brace or bracket secured to the lower side of said bunk, at its center, and impinging upon said wall, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 4th day of February, 1880.

G. H. MAETZEL.

Witnesses:

GEO. S. PRINDLE,
WILLIAM FITCH.