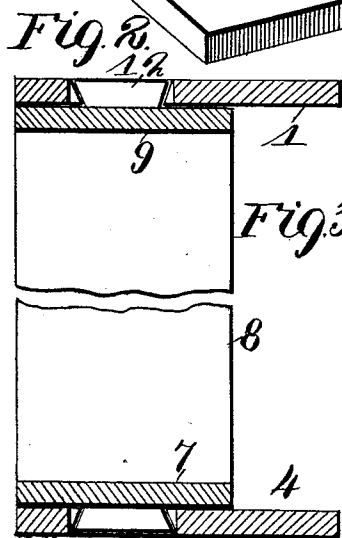
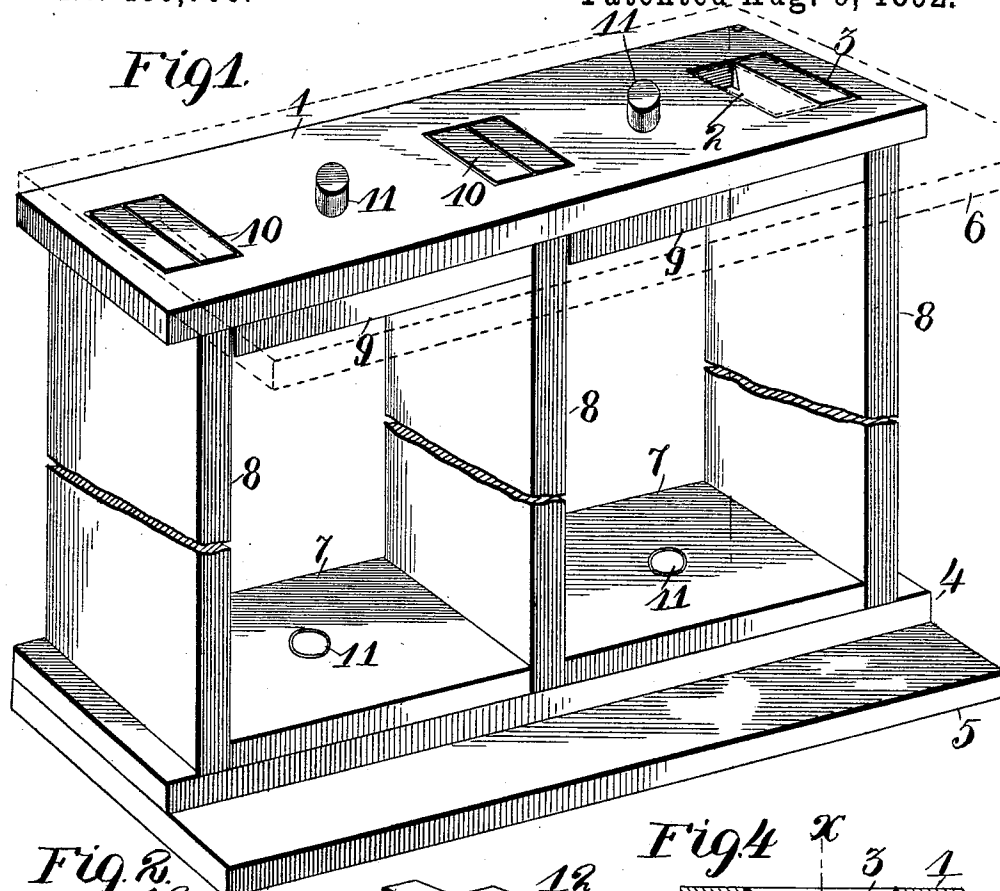


(No Model.)

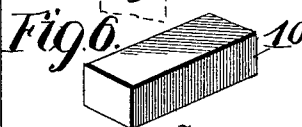
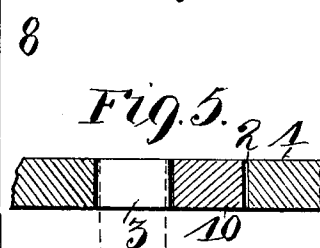
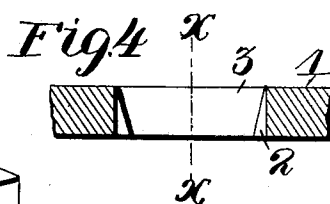
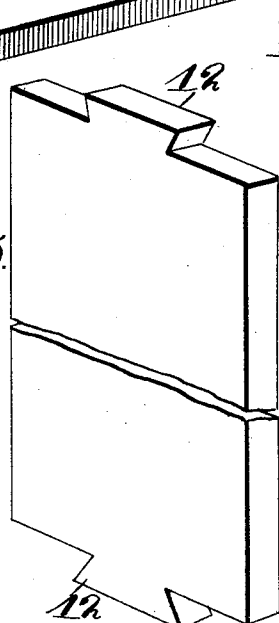
P. J. PAULY, Sr.
JAIL GRATING.

No. 480,700.

Patented Aug. 9, 1892.



Witnesses
D. St. John
A. A. Eicks



Inventor
Peter J. Pauly, Sr.
By his Attorneys
Higley, Higley & Horgan

UNITED STATES PATENT OFFICE.

PETER J. PAULY, SR., OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE PAULY JAIL BUILDING AND MANUFACTURING COMPANY, OF SAME PLACE.

JAIL-GRATING.

SPECIFICATION forming part of Letters Patent No. 480,700, dated August 9, 1892.

Application filed March 15, 1892. Serial No. 425,059. (No model.)

To all whom it may concern:

Be it known that I, PETER J. PAULY, Sr., of the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Jail or Other Gratings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to improvements in jail or other gratings; and it consists in the novel arrangements and combination of parts as will be more fully hereinafter described, and designated in the claims.

In the drawings, Figure 1 is a perspective view of my invention. Fig. 2 is a vertical transverse section. Fig. 3 is a perspective view of one of the vertical grate-bars. Fig. 4 is an enlarged transverse section taken through one of the holes formed in the top or upper horizontal grate-bar, as seen in Fig. 1. Fig. 5 is a sectional view taken on the line X X of Fig. 4, with the locking-key which I employ in its appropriate position. Fig. 6 is a detail perspective view of the locking-key which I employ in carrying out my invention.

Referring to the drawings, 1 indicates the upper horizontal grate-bar, which is of the construction as shown in Figs. 1 and 2. Said horizontal grate-bar 1 is provided with a series of holes corresponding with the number of grate-bars to be used, which are of the following shape: Said holes have a rectangular portion 2 and also a dovetail portion 3, for the purposes more fully hereinafter described.

4 indicates the lower horizontal grate-bar, the same being provided with a suitable number of holes corresponding to the number formed in the horizontal bar 1, and the holes formed in said lower horizontal grate-bar 4 are of the following form: Said holes having a rectangular portion and a dovetail portion similar in construction to those formed in the horizontal grate-bar 1.

5 indicates the floor-plate of the cell, and 6 the ceiling-plate, and 7 indicates rectangular plates, which are interposed between the vertical grate-bars 8, and superposed on the horizontal lower grate-bar 4, as seen in Fig. 1, and 9 indicates similar rectangular plates, which are located beneath the upper horizontal grate-bar 1, as also seen in Fig. 1.

10 indicates key-bars, which are used in the construction of my improved grating in a manner as will be more fully hereinafter described.

11 indicates bolts or rivets, which I employ in the construction of my improved grating.

The vertical grate-bars 8 have the construction as illustrated in Fig. 3, wherein the same is shown provided with dovetailed tenons 12, the same being adapted to snugly fit in the dovetailed portions 3 of the holes formed in the upper horizontal grate-bar 1 and the lower horizontal grate-bar 4. It may be noted in this connection that the keys 10 are adapted to snugly fit and fill up the rectangular portion 2 of the holes of the upper horizontal grate-bar 1 and the lower horizontal grate-bar 4, and said keys when in their normal and appropriate position lie interposed between the ceiling-plate 6 and the plate 9, and also the floor-plate 5 and the plates 7, as will be more fully hereinafter described.

Having described the different parts of the grating, I will now proceed to describe one way of putting the parts together.

The dovetailed tenons 12 of the vertical grate-bars 8 are first inserted in the rectangular portions 2 of the holes formed in the upper horizontal grate-bars 1 and the lower horizontal grate-bar 4, and then said vertical grate-bars 8 are moved laterally until said dovetailed tenons 12 fit and rest in the dovetailed portions 3 of the holes formed in the upper horizontal grate-bar 1 and the lower horizontal grate-bar 4. After this has been performed the rectangular blocks 10 are located in the rectangular portions 2 of said holes. The function of the wedges 10 is to prevent the vertical grate-bars 8 from moving out of the aforesaid location. The blocks or wedges 10, located in the upper horizontal grate-bar 1, are held in their appropriate position by means of the plate 9. Said plates 9 are located in an interposed position between the vertical grate-bars 8 and beneath the upper horizontal grate-bars 1, as illustrated in Fig. 1. Said plates 9 are secured to the ceiling-plate 6 of the cell by means of bolts or rivets 11, having their heads countersunk in the plates 7 and 9, as illustrated in Fig. 1. The keys or wedges 10, located in the horizontal grate-bar 4, are interposed between the plates 7

and the floor-plate 5, said plates being secured together in any suitable or mechanical manner, preferably by countersunk bolts or rivets 11, as illustrated in the drawings.

5 By the construction as aforesaid all the parts of the grating are held and secured together in a substantial manner and are not susceptible to the actions of the prisoners.

10 A grating constructed as described possesses all the elements of a cheap, simple, and durable one, and the parts are easily constructed and put together.

15 Although I have shown the different bars rectangular in cross-section, yet I may make them of various irregular shapes in cross section—for instance, circular, semicircular, or square.

Having fully described my invention, what I claim is—

20 1. As an improvement in jail or other gratings, the combination, with the horizontal grate-bars provided with holes divided into rectangular and dovetailed portions, said rectangular portions being of a length equal to
25 the greatest length of said dovetailed portions, of vertical grate-bars provided at their ends with dovetailed tenons corresponding to the dovetailed portions of the holes, and rectangular blocks corresponding to and adapted
30 to be disposed in said rectangular portion of the holes, substantially as and for the purpose set forth.

2. The combination of horizontal grate-bars 1 and 4, holes formed therein composed of rectangular portions 2 and dovetailed portions 3, vertical grate-bars 8, provided with dovetailed tenons 12, adapted to fit in said dovetailed portions, blocks 10, adapted to fit in said rectangular portions, a ceiling-plate 6, a floor-plate 5, plates 7 and 9, adapted to be interposed between said vertical grate-bars, and means for securing said plates 7 and 9 to the floor-plate 5 and ceiling-plate 6, respectively, substantially as set forth.

3. The combination of horizontal grate-bars 1 and 4, holes formed therein composed of rectangular portions 2 and dovetailed portions 3, vertical grate-bars 8, provided with dovetailed tenons 12, adapted to fit in said dovetailed portions, blocks 10, adapted to fit in said rectangular portions, a ceiling-plate 6, a floor-plate 5, plates 7 and 9, adapted to be interposed between said vertical grate-bars and countersunk bolts or rivets 11, for securing said plates 7 and 9 to the floor-plate 5 and ceiling-plate 6, respectively, substantially as set forth.

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

PETER J. PAULY, SR.

Witnesses:

C. F. KELLER,
ED. E. LONGAN.