

(No Model.)

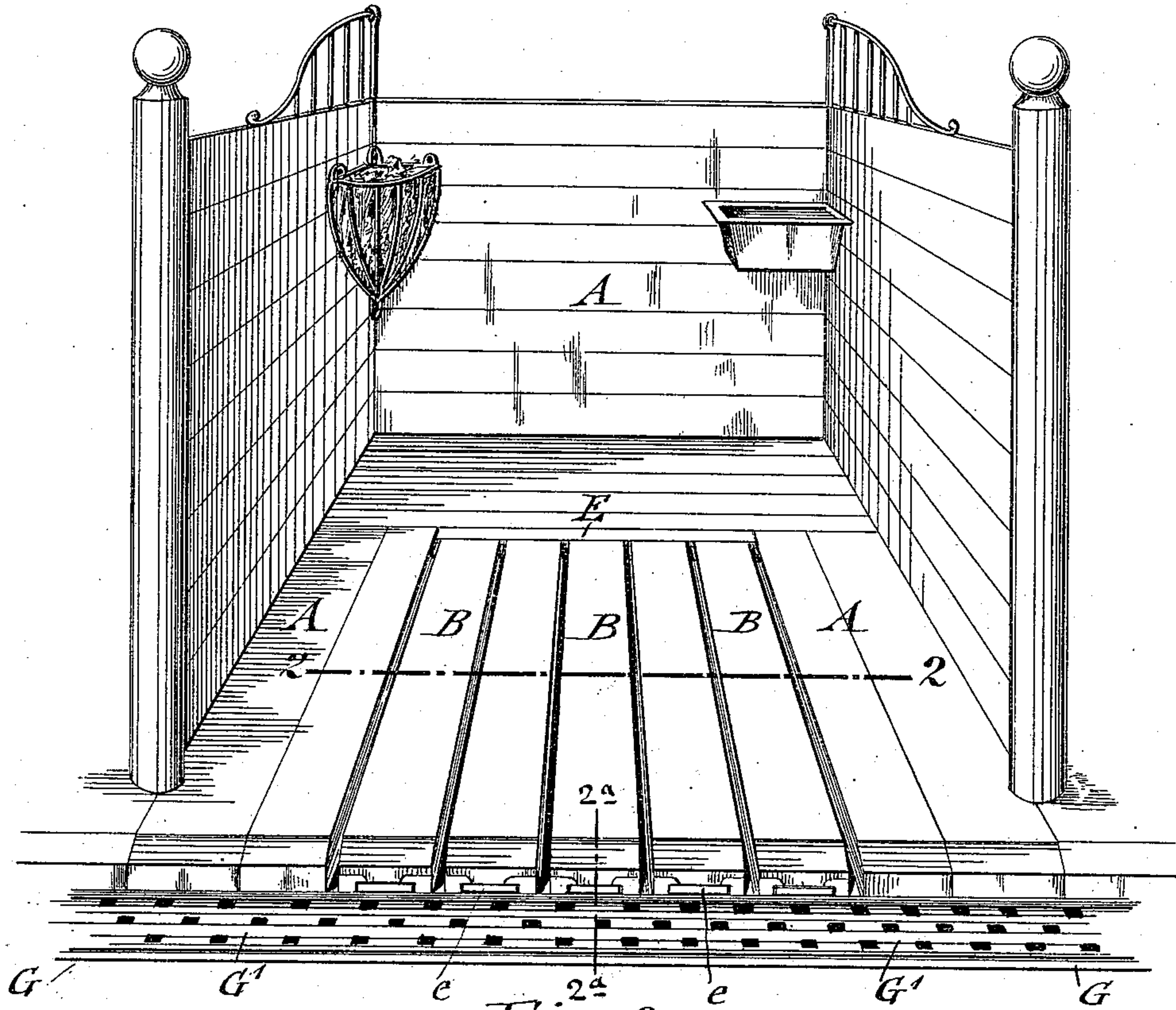
2 Sheets—Sheet 1.

F. STEINLE.  
DRAIN FOR STALLS.

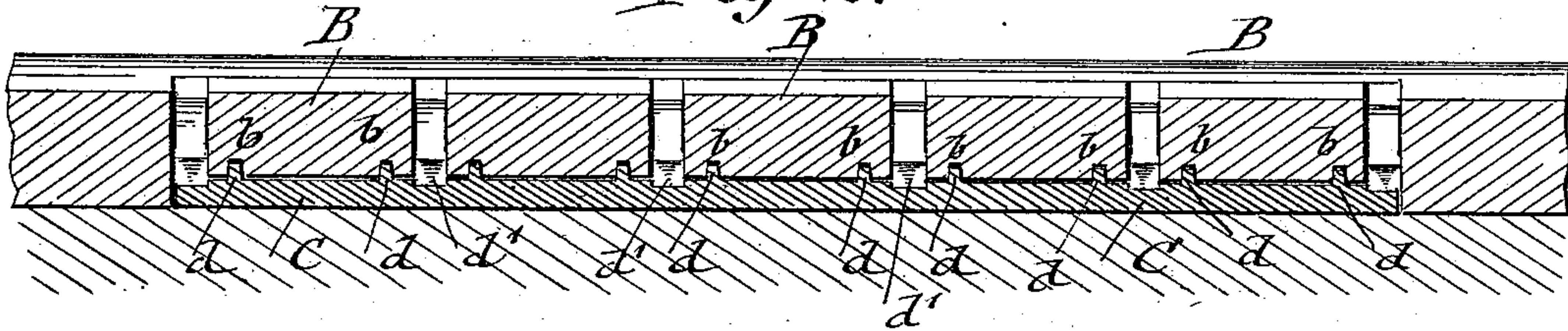
No. 546,478.

Patented Sept. 17, 1895.

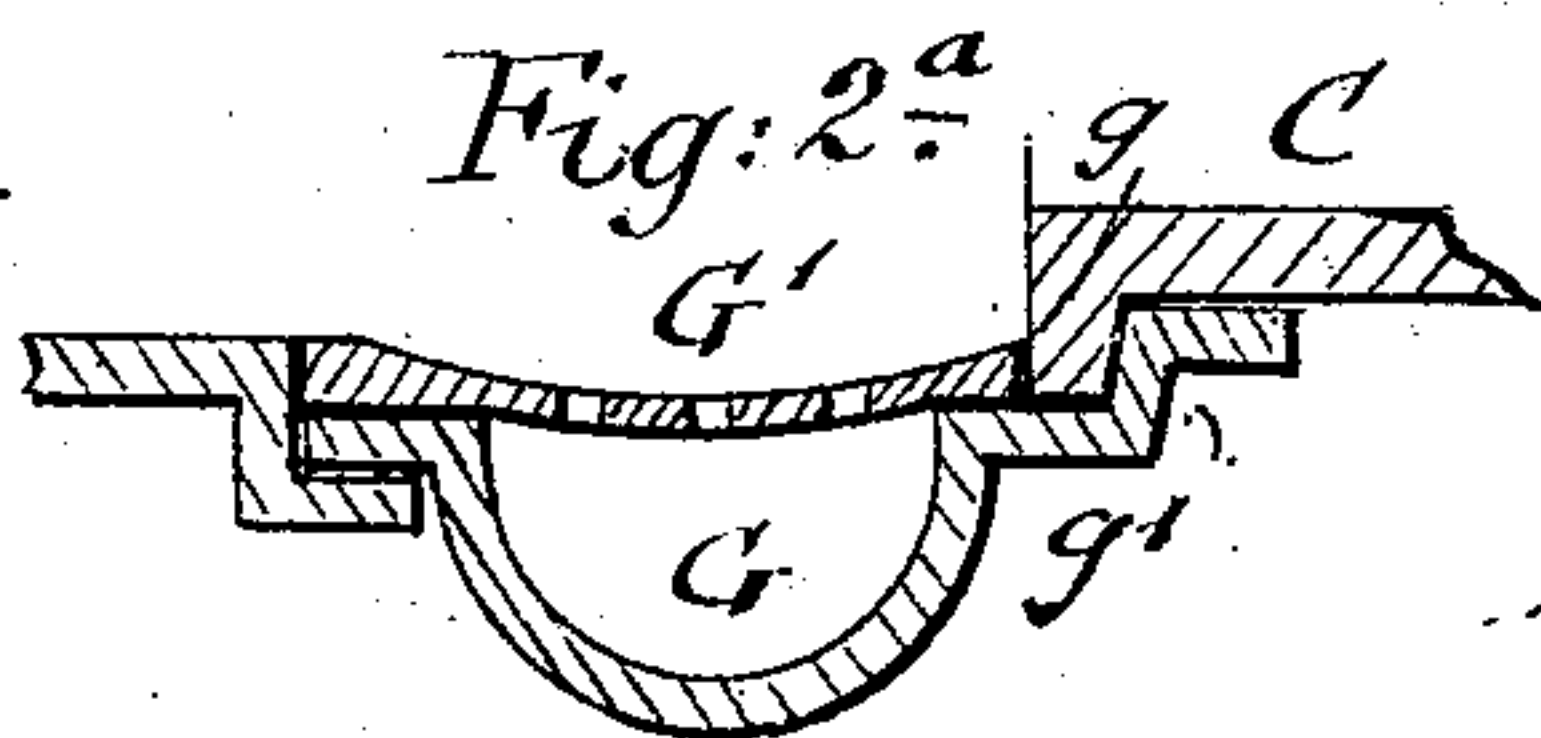
*Fig: 1.*



*Fig: 2.*



WITNESSES:  
*George W. Quercel*  
*C. Gast*



INVENTOR  
*Ferdinand Steinle*  
BY *George W. Quercel*  
ATTORNEYS.

(No Model.)

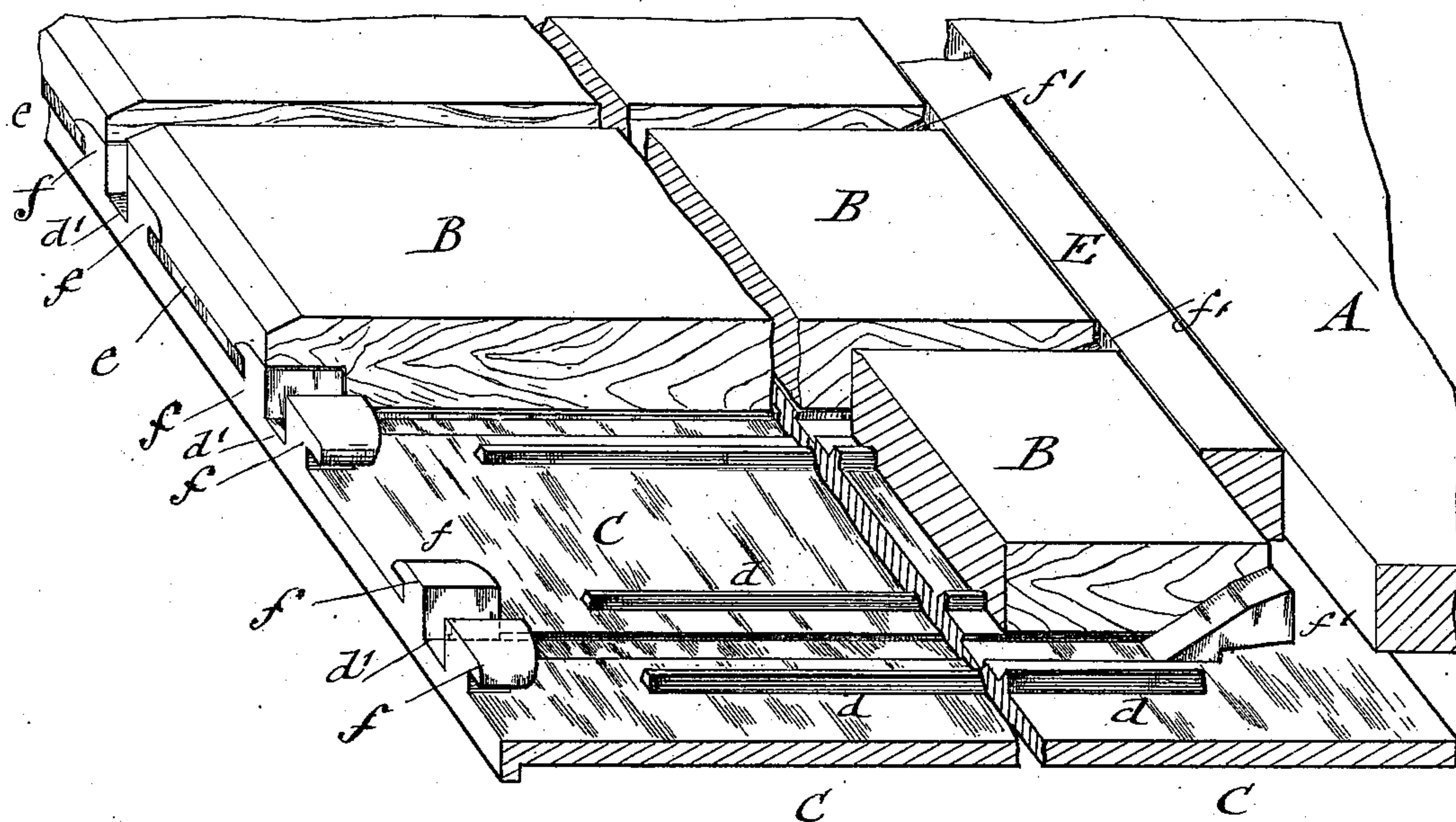
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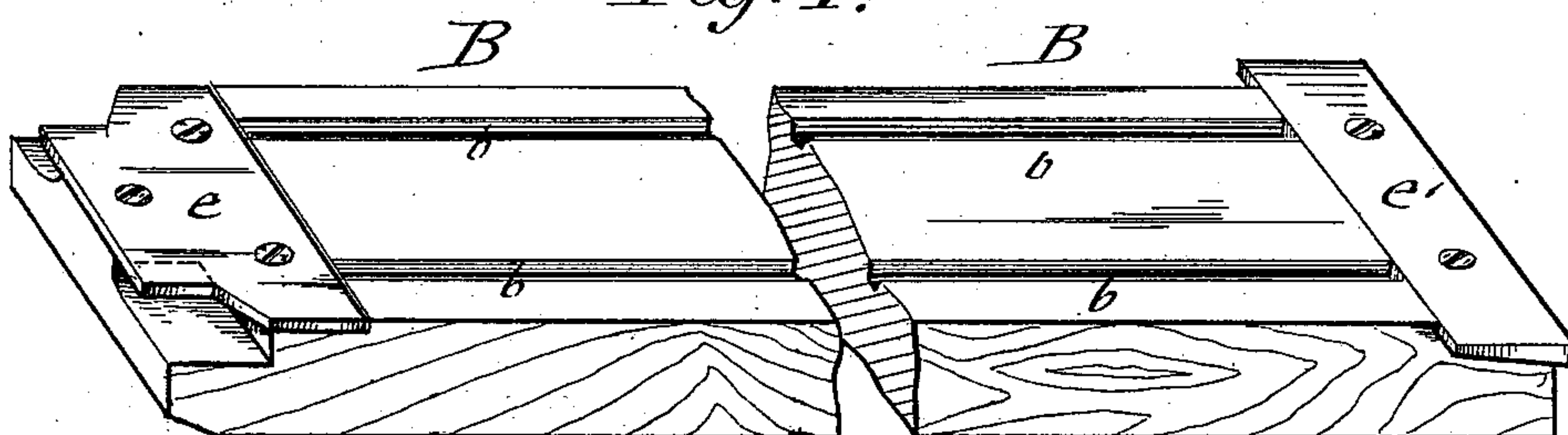
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*Fig: 3.*



*Fig: 4.*



WITNESSES: B  
George W. Farrell.  
Ch. Gast.

*B* INVENTOR  
*Ferdinand Heimle*  
BY *Loquax & Paezauer*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

FERDINAND STEINLE, OF NEW YORK, N. Y.

## DRAIN FOR STALLS.

SPECIFICATION forming part of Letters Patent No. 546,478, dated September 17, 1895.

Application filed April 3, 1895. Serial No. 544,239. (No model.)

*To all whom it may concern:*

Be it known that I, FERDINAND STEINLE, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Drains for Stalls, of which the following is a specification.

This invention has reference to an improved drain for the stalls of stables by which the moisture is drained off in a very effective manner, and a stall obtained in which the supporting blocks or slats can be readily exchanged when they have become worn out by use; and the invention consists of a drain for stalls comprising a cast-metal bed-plate provided with longitudinal ribs, grooves parallel with said ribs, wedge-shaped lugs at the rear ends of the grooves and laterally-projecting lugs at the front ends of the grooves, and blocks having bottom grooves, said lugs engaging with the interlocking-plates attached to the under side of the blocks at the rear and front ends of the blocks, respectively, so that the blocks, when dropped on the ribs of the bed-plate and shifted in forward direction, are firmly retained in position by the lugs.

In the accompanying drawings, Figure 1 represents a perspective view of my improved drain for stalls. Fig. 2 is a vertical transverse section of the same on line 2 2, Fig. 1, drawn on a larger scale. Fig. 2<sup>a</sup> is a vertical transverse section through the gutter on line b<sup>a</sup> b<sup>a</sup>, Fig. 1. Fig. 3 is a perspective view of the bed-plate and blocks supported thereon, drawn on a larger scale and with parts broken away; and Fig. 4 is a bottom perspective view of one of the blocks of my improved drain for stalls, showing the locking-plates and bottom grooves of the same.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a stall for horse or other stables, and B a number of parallel blocks which are separated by suitable interstices and supported on a cast-metal bed-plate C, placed on a foundation of cement, wood, or other suitable material. The bed-plate C is provided with longitudinal ribs *d*, which are arranged in pairs, and which stop short at some distance from the front and

rear of the bed-plate C. The bed-plate C is provided intermediately between the pairs of ribs *d d* with longitudinal grooves or depressions *d'*, the bottoms of which are closed or imperforate. The front end of the grooves *d'* communicates with a gutter G, which is covered by a perforated drain-plate G' in the usual manner. A bottom flange *g* at the front end of the bed-plate projects over a shoulder *g'* of the gutter G, and forms thereby the connection with the same, as shown in Fig. 2<sup>a</sup>. The blocks B B are provided at their under side with longitudinal grooves *b b*, which register with the ribs *d d* when the blocks are dropped on the same, said ribs serving to prevent the lateral shifting of the blocks B. The front and rear ends of the blocks B are recessed at their under sides and provided with front plates *e e* and wedge-shaped rear plates *e' e'*, which are attached to the blocks by screws, as shown in Fig. 4. The front plates *e* of the blocks are engaged by laterally-projecting lugs *f f*, one at each side of the grooves *d'*, and the rear plates *e' e'* by lugs *f' f'*, arranged in line with the grooves *d'*, respectively, at the front and rear of the bed-plate C. The blocks B are connected with the bed-plate C by being first dropped onto the longitudinal ribs *d*, so that their bottom grooves *b* are over the ribs *d*, while the rear wedge-plates *e'* are back of the rear lugs *f'*. The block B is then shifted in forward direction on the guide-ribs *d d*, so that the wedge-shaped rear plate *e'* is engaged by the rear lugs *f'* and the front plate *e* by the front lugs *f f*, as shown in Figs. 1 and 3. When all the blocks are thus placed in position, a transverse locking-block E is dropped in between the rear ends of the blocks B and the adjacent plank at the rear part of the stall, as shown in Figs. 1 and 3, said blocks being placed loosely on the base-plate or secured to the same by suitable screws, as desired.

When it is desired to remove any one of the blocks B for cleaning the drain or for replacing it when repairing the stall, the transverse block E is first taken up, after which any one of the blocks can be readily detached from the base-plate by shifting it in backward direction until its interlocking-plates *e e'* clear the



front and rear lugs *f f'* of the bed-plate. The moisture is conducted in the longitudinal grooves of the inclined bed-plate to the gutter G, so that the stall is always kept dry and clean by the drain.

Another advantage of my improved drain is that it can be thoroughly cleaned from time to time by removing the blocks from the bed-plate, then washing the latter as well as the individual blocks, and then replacing the cleaned blocks into their former position.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A drain for stalls, consisting of a bed-plate provided with front and rear-lugs, and blocks or slats provided at their under side with front and rear-plates adapted to interlock with the front and rear-lugs of the bed-plate, substantially as set forth.

2. A drain for stalls, consisting of a bed-plate provided with longitudinal ribs, longitudinal grooves intermediately between said ribs, and with front and rear-lugs, and of blocks provided at their under side with grooves registering with said ribs, and with front and rear-plates interlocking respect-

ively with the front and rear-lugs of the bed-plate, substantially as set forth.

3. In a drain for stalls, the combination of a bed-plate provided with longitudinal ribs, longitudinal grooves between said ribs, and with front and rear-lugs, blocks provided with grooves fitting over the ribs of the bed-plate, and with front and rear-plates interlocking with the front and rear-lugs of the bed-plate, a gutter extending along the front-end of the bed-plate, and a transverse retaining block extending along the rear-ends of the blocks, substantially as set forth.

4. A bed-plate for stall-drains, provided with parallel guide-ribs of less length than the plate, longitudinal grooves or depressions between said ribs, and with front and rear-lugs for locking the blocks or slats to the bed-plate, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

FERDINAND STEINLE.

Witnesses:

CHARLES STEINLE,  
PAUL GOEPEL.