(No Model.)

I. FISHER & W. TOWLE.

STALL.

No. 250,631. Patented Dec. 6, 1881.

Fig. 1.

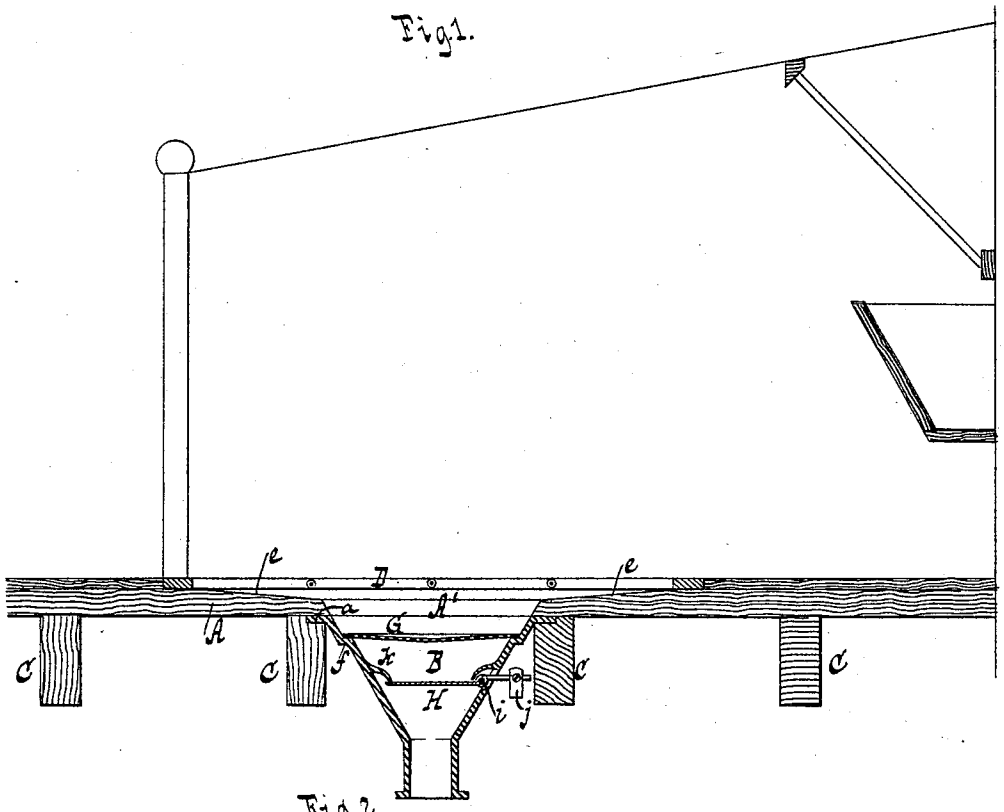
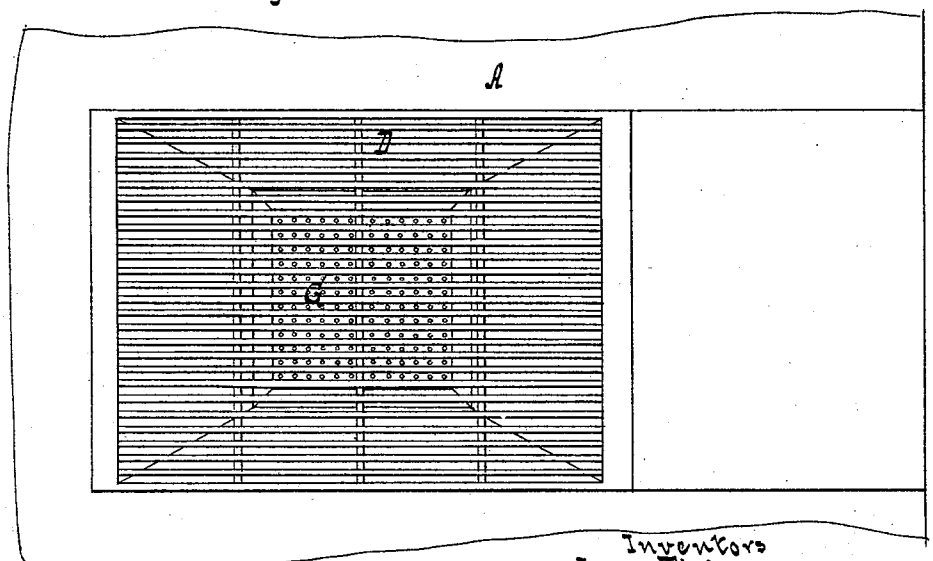


Fig. 2.



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N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

ISAAC FISHER AND WILLIAM TOWLE, OF NEW YORK, N. Y.

STALL.

SPECIFICATION forming part of Letters Patent No. 250,631, dated December 6, 1881.

Application filed September 29, 1881. (No model.)

To all whom it may concern:

Be it known that we, ISAAC FISHER and WILLIAM TOWLE, citizens of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Stalls, of which the following is a specification.

This invention relates to stalls for horses and other animals, and especially that class of stalls having a drain sunken into the floor thereof for catching urine and other liquid matter.

Prior to our invention it has been difficult to prevent leakage in the vicinity of the drain, owing to its faulty construction or arrangement, and hence, in the event of the location of a cellar or floor below the stall—as, for instance, in fire-engine houses—it is liable to become soiled with urine; and to overcome the objection thus occasioned to the use of the drain is the primary object of our invention.

This invention is illustrated in the accompanying drawings, in which Figure 1 represents a vertical longitudinal section. Fig. 2 is a plan or top view.

Similar letters indicate corresponding parts.

The letter A designates the stall-floor, and B the drain sunken therein, the floor being provided with an opening, A′, for this purpose. C are the floor-beams.

The drain B is adapted to be connected with a drain-pipe at the bottom, and on the upper edge thereof is formed an outwardly-projecting flange, *a*, while two of the floor-beams C, having the drain placed between them, are rabbeted in their adjacent edges, as clearly shown, to receive such flange, which is thus supported flush with the upper edges of the floor-beams, so that when the floor is laid down the drain is firmly held in place, and a tight joint is produced, effectually preventing any leakage from the floor at the edges of its drain-opening.

The stall-floor A, around its opening A′, is provided with the inclined portions *e e*, which extend over the flange *a* on the drain B, as clearly shown in Fig. 1, which construction and arrangement of parts compels the drainage to flow directly into the drain, and provides a tight joint between the drain and stall-floor, thereby entirely avoiding the possibility of leakage between said parts; and at the same time the inclined portions of the stall-floor, overlapping the flange on the drain, serve to retain the latter in proper position, as before stated.

Upon the stall-floor is arranged the grating D, which is level or horizontal, so that while the passage of the liquid is left unimpeded the animal is thereby protected against stepping into the drain, and also prevented from injuring or breaking the latter by that means. This grating D is fitted to the sloping portion of the floor, thus extending across the drain, and a false floor is preferably laid around it, in the stall, on a level therewith, as indicated.

Near the top, and internally of the drain B, is formed a shoulder, *f*, upon which is fitted a foraminous screen, G, the latter being left detached, so that it is removable. The function of this screen G is to arrest any solid matter that may find its way into the drain, and also to act as a safeguard against the horse's stepping into the drain, in case the grating should become broken, the shoulder affording a firm support thereto.

We are aware that a stall-floor has heretofore been provided with inclines and an opening in which is secured a trapped drain-pipe; but, as heretofore constructed and arranged, the drainage will leak between the sloping floor and the drain-pipe. By the construction and arrangement present in our invention we effectually avoid the possibility of leakage between the stall-floor and the drain; and, further, the floor-beams sustain the drain, while the inclined portions of the stall-floor overlap the flange on the drain and subserve the functions of retaining the drain in proper position, providing a tight joint between the floor and the drain, and causing the drainage to be discharged directly into the latter.

What we claim as new, and desire to secure by Letters Patent, is—

In a stall for horses, the combination of the floor-beams C C, having rabbets in their adjacent edges, the drain B, having a laterally-projecting flange, *a*, suspended on the rabbets of said beams, flush with the latter, the stall-

floor A, having the inclined portions *e e*, extending over the flange of the drain, in the manner described, for directing the drainage into the latter, and providing a tight joint between the floor and said drain, and the grating D, extending over the stall-floor, substantially as set forth.

In testimony whereof we have hereunto set our hands and seals in the presence of two subscribing witnesses.

ISAAC FISHER. [L. S.]
WILLIAM TOWLE. [L. S.]

Witnesses:
J. HERMANN WAHLERS,
CHAS. WAHLERS.