

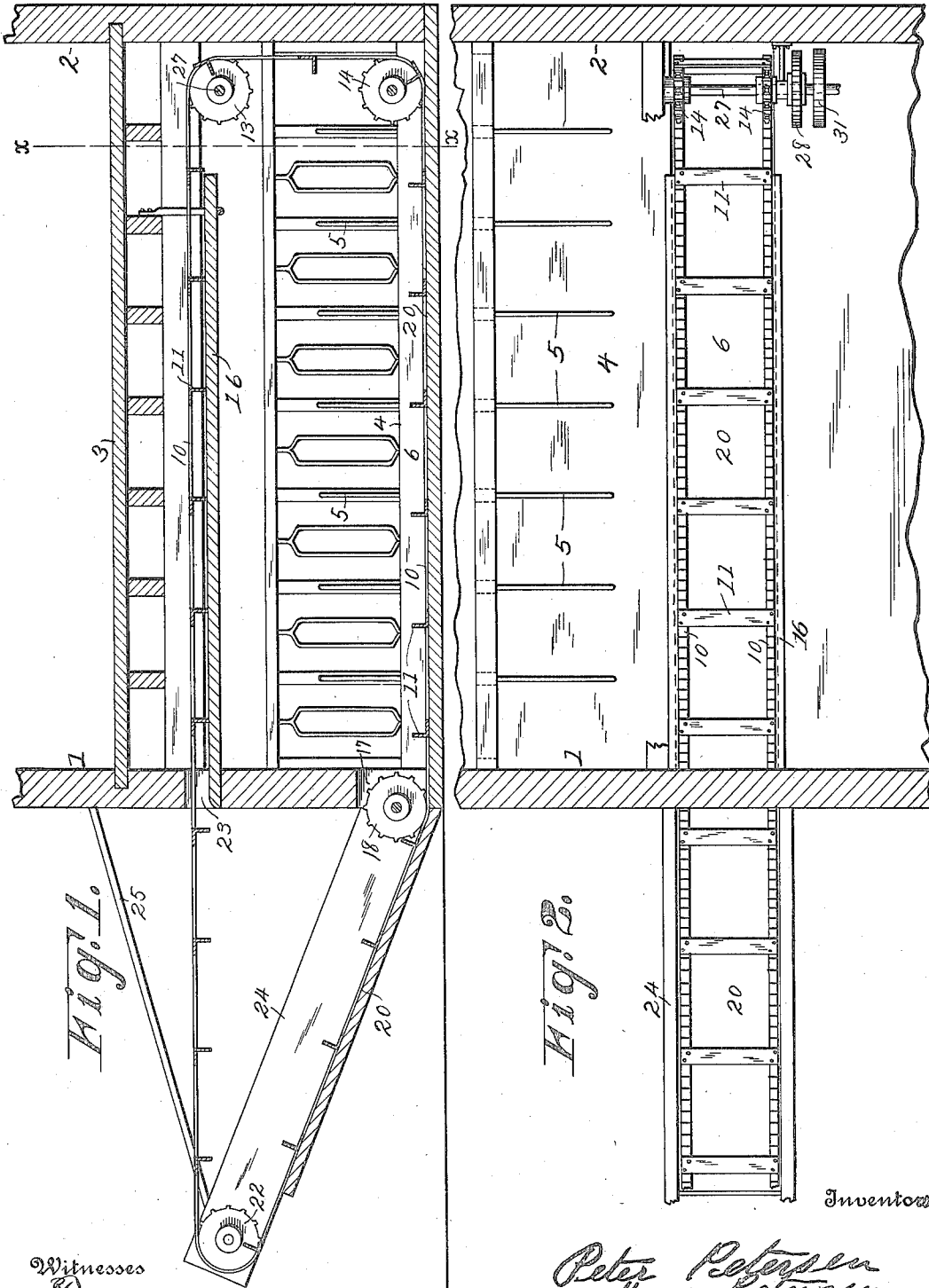
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STABLE.

APPLICATION FILED APR. 6, 1914.

1,197,060.

Patented Sept. 5, 1916.

2 SHEETS—SHEET 1.



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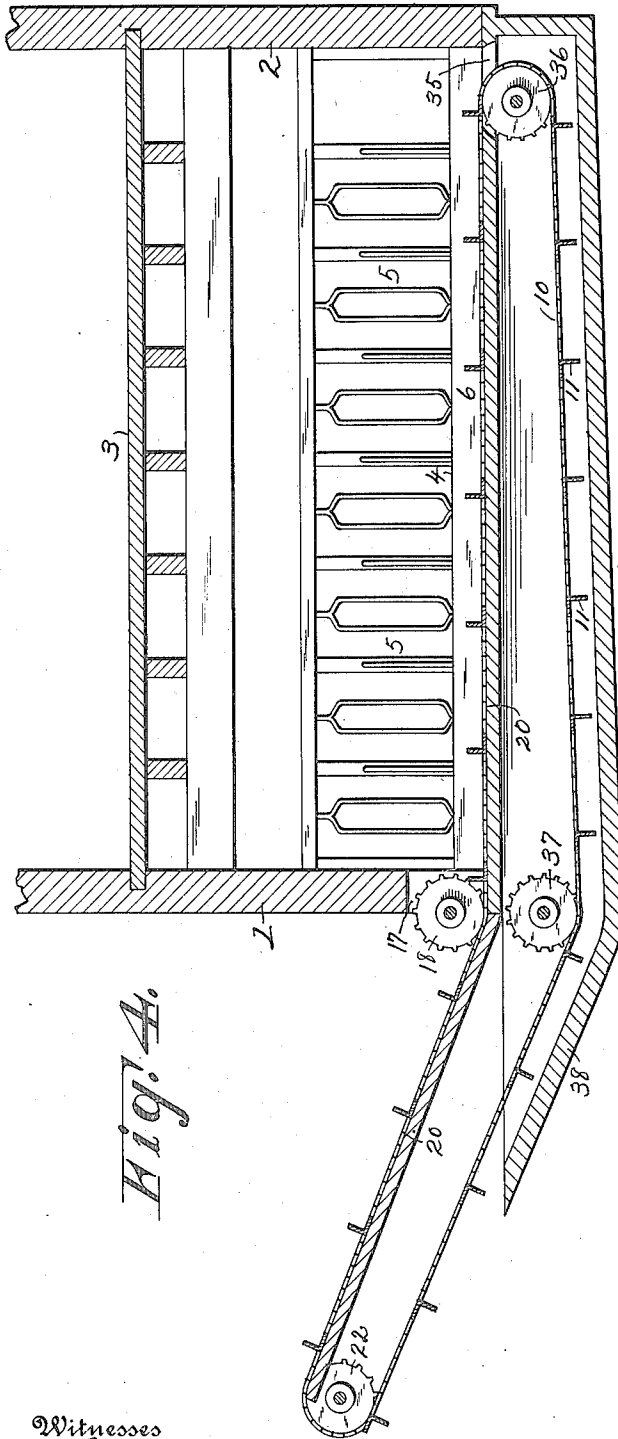


Fig. 4.

Fig. 5.

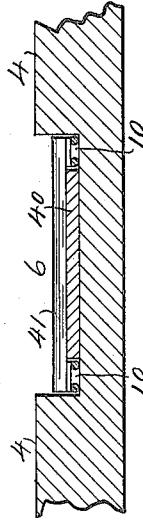


Fig. 6.

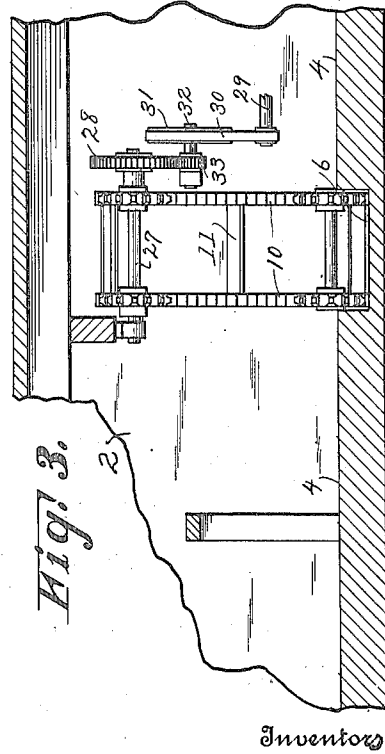


Fig. 3.

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UNITED STATES PATENT OFFICE.

PETER PETERSEN AND HENRY PETERSEN, OF OCONOMOWOC, WISCONSIN.

STABLE.

1,197,060.

Specification of Letters Patent.

Patented Sept. 5, 1916.

Application filed April 6, 1914. Serial No. 829,746.

To all whom it may concern:

Be it known that we, PETER PETERSEN and HENRY PETERSEN, citizens of the United States, residing at Oconomowoc, county of Waukesha, and State of Wisconsin, have invented new and useful Improvements in Stables, of which the following is a specification.

Our invention relates to improvements in stables.

The object of our invention is to provide means whereby a stable may be quickly and easily cleaned by power applied at any convenient point within the stable or exterior thereto.

In the drawings—Figure 1 is a longitudinal sectional view of a stable embodying our invention, drawn to a vertical plane which includes the gutter. Fig. 2 is a plan view showing the end walls of the stable in horizontal section. Fig. 3 is a sectional view, drawn on line $x-x$ of Fig. 1. Fig. 4 is a sectional view, drawn to the same plane as Fig. 1 and showing a modified arrangement of the conveyer. Fig. 5 is a fragmentary sectional view, showing the gutter and cleaning conveyer, drawn to a plane cutting the gutter transversely and showing a slightly modified form of construction. Fig. 6 is a cross sectional view of one of the scraping bars 41.

Like parts are identified by the same reference characters throughout the several views.

1 and 2 are the end walls of a stable, 3 the ceiling wall, 4 the platform or floor wall upon which the stall partitions 5 are located, and 6 is the gutter commonly located back of the platform 4. All of these parts may be of any ordinary construction, except as hereinafter set forth.

A set of chains 10 extends along the floor of the gutter near the respective sides thereof, and these chains are connected by cross bars 11, which may be conveniently formed of angle iron bars. The chains 10 and the connecting cross bars 11 constitute a conveyer which is adapted to travel longitudinally along the floor of the gutter to clean the same. The conveyer may extend to any suitable delivery point from which it returns, preferably either underneath the ceiling, floor, or underneath the platform as may be found most convenient.

In Fig. 1 we have illustrated a stable

which is provided near one end wall 2 with sprocket wheels 13 and 14, over which the chains 10 run. The sprocket wheel 14 extends into the gutter near this end of the stable, and the sprocket wheel 13 is located in a raised position and at a sufficient height to support the chain on the return side out of the reach of animals in the stable. The chain may be additionally supported by a platform 16 along which the cross bars 11 may travel. At the other end of the stable, as illustrated in Fig. 1, the end wall 1 is provided with an opening 17 through which the conveyer may pass, and sprocket wheels 18 are journaled in this wall opening or in suitable bearings connected with the wall. The floor 20 of the gutter 6 is also extended through the opening 17 and inclined outwardly and upwardly, whereby the chain may serve to carry refuse to a raised point of delivery. The outer end of the conveyer is supported by sprocket wheels 22, over which the conveyer chains are passed, the conveyer extending on the return side through an opening 23 in wall 1. Sprocket wheel 22 may be supported from the wall 1 by frame bars 24 forming a continuation of the sides of the gutter, but these sprocket wheels may also be supported by suitable standards 25 (Fig. 1).

Any one of the sets of sprocket wheels may serve as driving sprockets for the conveyer. In Fig. 1, the sprocket wheels 13 are the driving sprockets, their supporting shaft 27 being extended and provided with a driving gear wheel 28, which may be actuated from any suitable source of power. In Fig. 3 we have illustrated this gear wheel 28 as driven from a power shaft 29, through belt 30, pulley 31, shaft 32, and pinion 33.

In Fig. 4 we have illustrated a form of construction adapted to be used in cases where there is a basement underneath the stable or sufficient space underneath the floor for the operation of the conveyer chain on the return side. In this construction, the stable walls, gutter and extended gutter floor 20 may all be identical in form with that shown in Fig. 1, except that the gutter floor is provided with an opening 35 adjacent to the end wall 2 of the stable and a sprocket wheel 36 is journaled to extend into this opening and downwardly therefrom, the conveyer chains being passed underneath the floor on the return side and around

this end sprocket wheel 36, guide sprocket wheels 37 being located underneath the gutter floor 20 in an opening formed in the wall 1 below the opening 17. A platform 5 38 may also be employed as an auxiliary support for the return side of the conveyer and to prevent refuse which has clung to the conveyer from dropping into the basement or other room below the stable.

10 It will be understood that the object of providing the exterior inclined extension 20 and the exterior extension of the conveyer is for the purpose of elevating the refuse delivered from the stable so that it can be dis- 15 charged into a pile or into a wagon or other conveying means. Where the stable floor is sufficiently elevated above the ground adjacent to the discharge opening 17, it may not be necessary to use the exterior extension of 20 the conveyer and gutter, and these may be dispensed with.

In Fig. 5, the gutter floor 20 is provided with a raised central portion 40 with narrow channels near each side of the gutter in 25 which the chains 10 may run. The cross bars 41 in this construction have rounded upper surfaces with but slight elevation. They extend substantially the full width of the gutter with their ends covering the

chains and their central portions bearing 30 upon the raised gutter member 40.

We claim—

1. The combination with a stable and stable gutter, of an inclined extension of said gutter outside of the stable, an endless 35 conveyer operating throughout said gutter and extension, and an overhead platform supporting the returning section of the conveyer.

2. The combination with a stable, of a 40 stable gutter having chain receiving channels in its bottom portion, and a conveyer operating in said gutter and provided with conveyer chains running in said channels and spaced scraping cross bars each flat on 45 one side and rounded on the other from margin to margin of the flat surface, said bars connecting said chains and having their flat surfaces traveling on the bottom of the gutter between said channels. 50

In testimony whereof we affix our signatures in the presence of two witnesses.

PETER PETERSEN.
HENRY PETERSEN.

Witnesses:

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