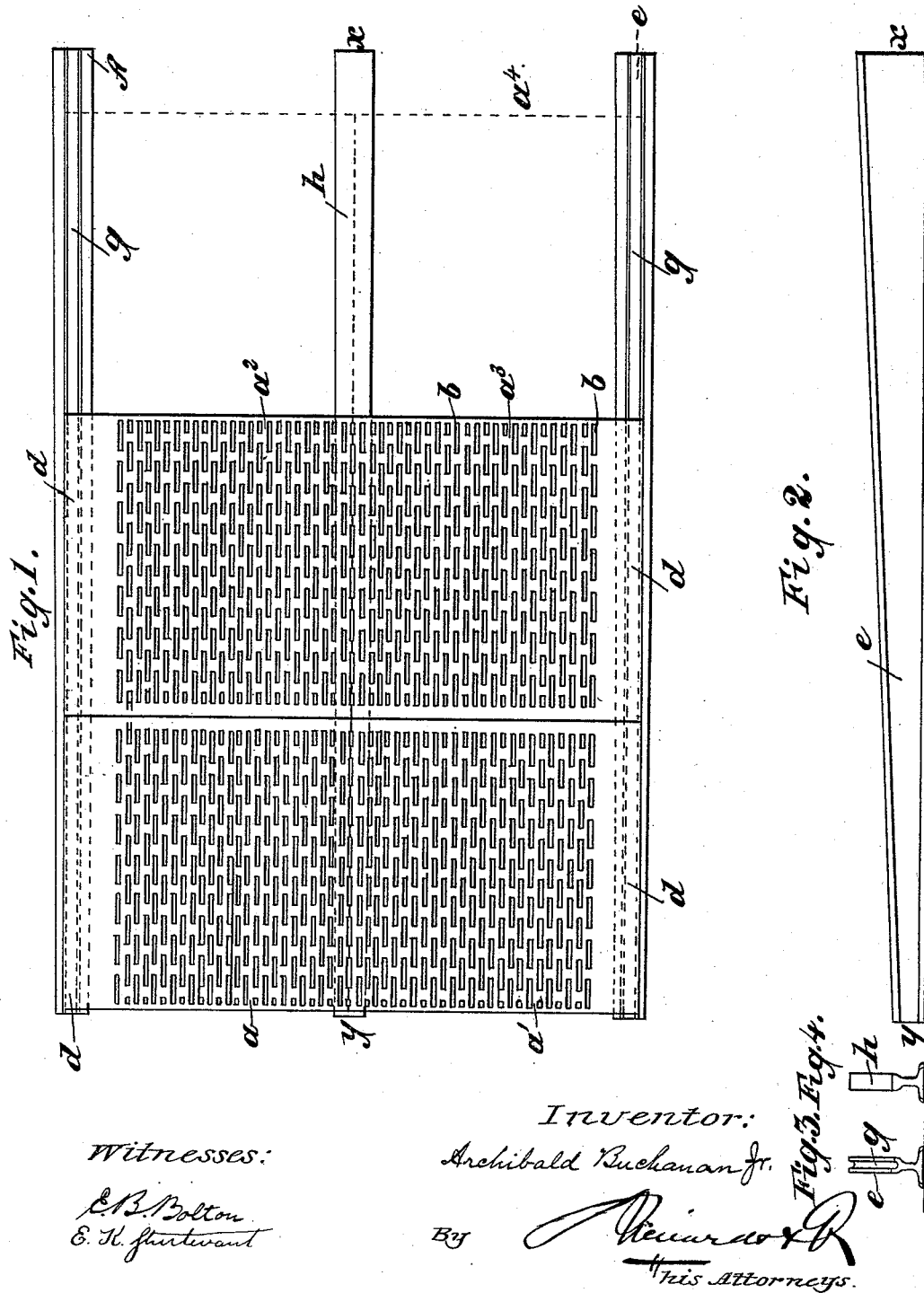


A. BUCHANAN, Jr.
FLOOR FOR STABLES, &c.

No. 492,777.

Patented Mar. 7, 1893.



Witnesses:

C. B. Bolton
E. H. Furtervant

Inventor:

Archibald Buchanan Jr.

By

Richard R.
His Attorneys.

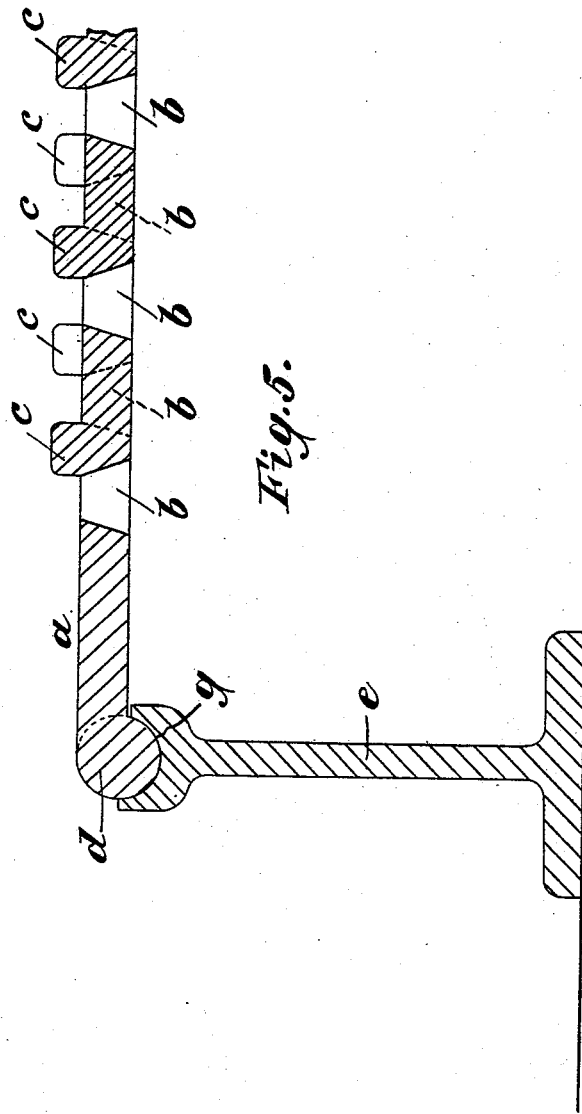
(No Model.)

2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

ARCHIBALD BUCHANAN, JR., OF AYR, SCOTLAND.

FLOOR FOR STABLES, &c.

SPECIFICATION forming part of Letters Patent No. 492,777, dated March 7, 1893.

Application filed May 19, 1892. Serial No. 433,544. (No model.)

To all whom it may concern:

Be it known that I, ARCHIBALD BUCHANAN, Jr., a subject of the Queen of Great Britain, and a resident of the town of Ayr, Ayrshire, Scotland, have invented certain new and useful Improvements in Floors for Stables, Cattle-Sheds, and the Like, of which the following is a specification.

This invention relates to improvements in the floors of stables, cattle sheds and the like, and it has for its object to improve their construction.

In order that my said invention may be properly understood, I have hereunto appended two explanatory sheets of drawings, whereon:—

Figure 1 is a plan view of my improved flooring. Fig. 2 is a side elevation of one of the side girders or supports for the flooring. Fig. 3 is an end view of the girder, Fig. 2. Fig. 4 is an end view of the central girder or support. Fig. 5 is a section to an enlarged scale, of a girder and grating.

In carrying out my invention, I make the flooring of the stalls of a number of metal gratings *a*. The gratings may be galvanized or tarred to prevent them rusting. The gratings are made with a number of openings *b* and alternate raised projections *c*. The openings *b* are wider at their under sides than at their upper sides, as shown at Fig. 5, so as to allow dirt to pass readily through them. Each grating has a hinged or rounded part *d* at one side. The hinged part *d* fits into a groove made in the side supporting girders *e*. The groove is marked *g* in Figs. 1 and 3. The central supporting girder *h* is flat on its upper side, as shown in Figs. 1 and 4.

In Fig. 1, the top of the stall is at *x*, and the bottom or entrance of the stall at *y*. As will be seen, the girders *e*, *h*, are inclined or tapered toward the entrance end of the stall, so that the horses, or cattle, as the case may be, stand on an inclined flooring. The girders may be embedded in cement, or brick-work, &c.

In Fig. 1, four gratings are shown, *a*, *a'*, *a''*, *a'''*, and a dotted line at *a''''* represents the position of the top pair of gratings of the stall. The gratings *a* and *a''* have their hinged parts

d resting in the groove *g* of the girder *e* on one side, while the hinged parts *d* of the gratings *a'* and *a'''*, rest in the groove *g* of the other girder *e*. With this arrangement of flooring, any liquid matter passes through the gratings onto the cement foundation, and runs off. As a consequence, the litter and bedding are always kept clean and dry. Any particles of dirt or matter can be brushed through the holes of the grating.

When it is desired to clean out the stall, the gratings *a'* and *a'''* are lifted up and laid back against one of the side walls or partitions of the stall, the part *d*, working in the groove *g*, serving as a hinge to enable the gratings to be easily turned over or laid back. The gratings *a* and *a''*, are likewise turned over or laid back against the other side wall or partition of the stall. When all the gratings have been laid back, the stall can be easily washed and swept out. The hinge arrangement *d*, *g*, enables heavy gratings to be easily turned over or laid back.

Having now fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In combination in a stable flooring of the two side girders, the central girder *h* and the gratings hinged to the side girders and having their free ends resting on the central girder, substantially as described.

2. In combination in a stable flooring of a series of gratings, each having the rounded portion *d* along one edge, and the supporting girder having a groove extending along its upper edge to receive the said rounded portions, substantially as described.

3. In combination in a stable flooring, the series of gratings, the girder for supporting the same, the pivoted connection between the gratings and the girders, said girders being grooved to receive the edge of the gratings and tapered vertically from front to rear, substantially as described.

In witness whereof I have hereunto set my hand at Glasgow, Scotland.

ARCHD. BUCHANAN, JR.

Witnesses:

DUNCAN DEWAR, Junr.,

WILLIAM GALL.