3 Sheets--Sheet 1.

I. R. MARSH & I. BELL.

Cattle Stalls.

No. 167,551. Patented Sept. 7, 1875.

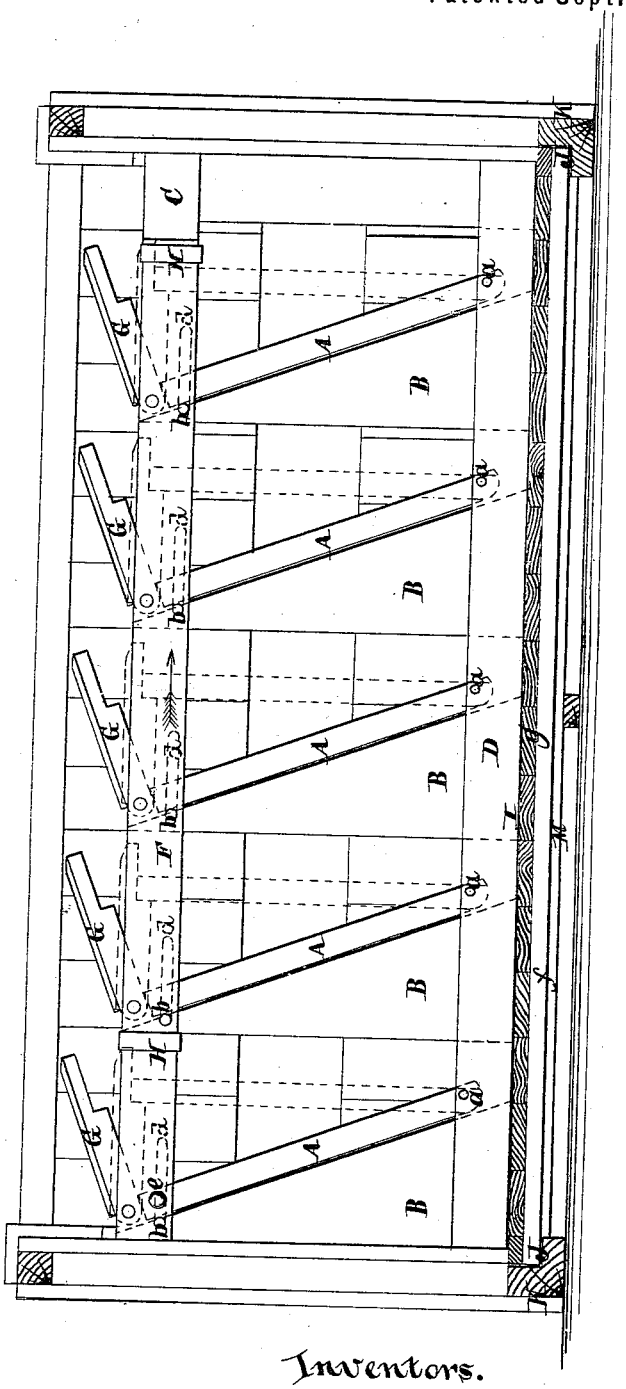

Fig. 1.

Witnesses.
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Chas. Wahlers.

Inventors.
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by
Van Santvoord & Hauff
Attys

3 Sheets--Sheet 2.

I. R. MARSH & I. BELL.

Cattle Stalls.

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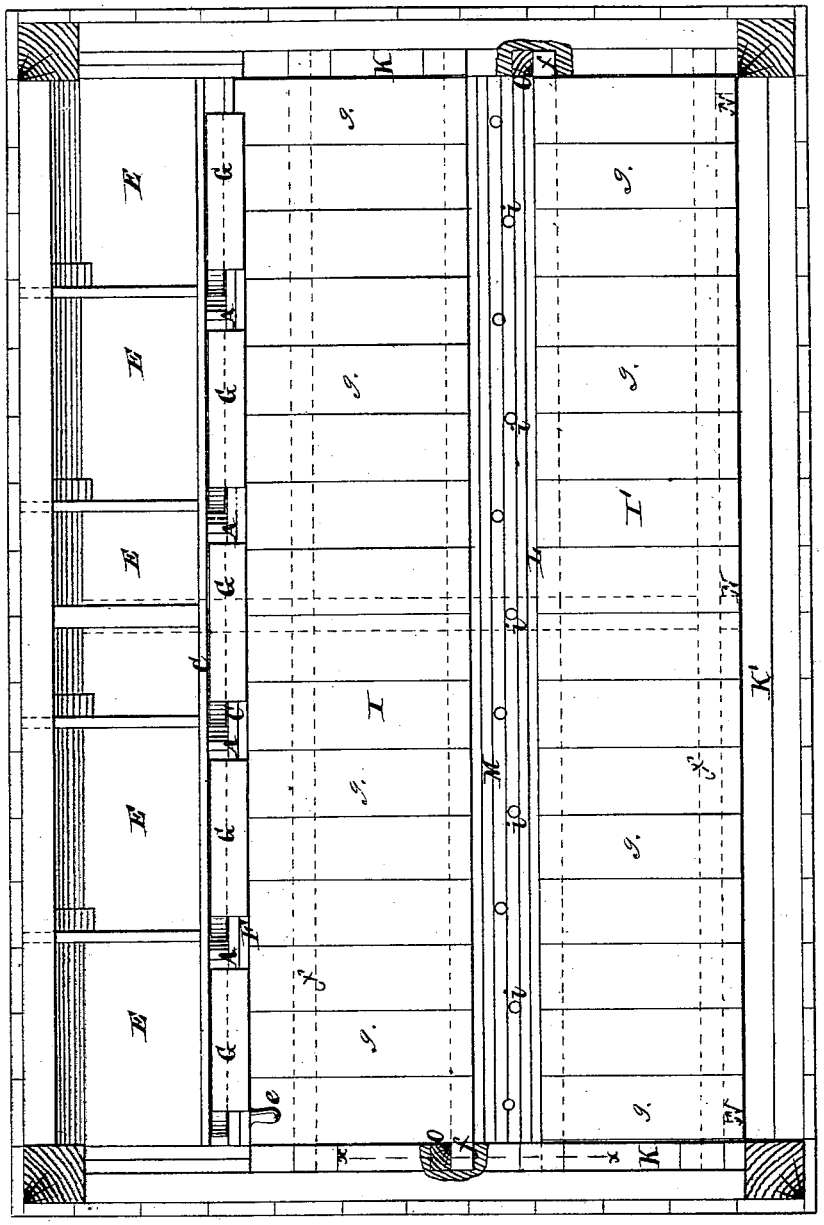

Fig. 2.

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Fig. 3.

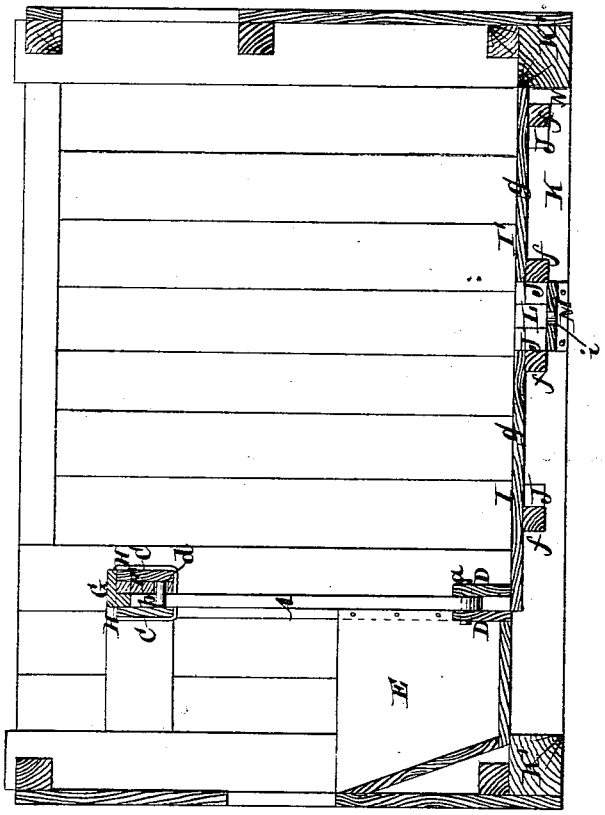
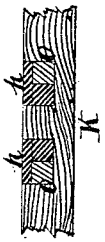


Fig. 4.



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Inventors.
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UNITED STATES PATENT OFFICE.

ISAAC R. MARSH AND IRA BELL, OF BRASHER FALLS, NEW YORK.

IMPROVEMENT IN CATTLE-STALLS.

Specification forming part of Letters Patent No. **167,551**, dated September 7, 1875; application filed July 21, 1875.

To all whom it may concern:

Be it known that we, ISAAC R. MARSH and IRA BELL, both of Brasher Falls, in the county of St. Lawrence and State of New York, have invented a new and useful Improvement in Cattle-Stalls, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a vertical section of our stall. Fig. 2 is a horizontal section. Fig. 3 is a vertical cross-section. Fig. 4 is a section taken in the plane of the line *x x*, Fig. 2, and showing the means for securing the floor.

Similar letters indicate corresponding parts.

Our invention relates to stalls for cows and other cattle; and one of its features consists in combining, with a series of stationary and movable stanchions adapted to confine an animal's head, a closing slide, which is arranged in such a manner, with respect to the movable stanchions, that, by moving the slide in the proper direction, a number of animals may be fastened simultaneously, whilst the slide permits of loosening the stanchions independently of each other.

Another feature of our invention consists in constructing the stall with a sectional floor, the sections of which are so arranged relatively to a gutter formed between them that, by moving the sections toward or from the gutter, or toward or from each other, the area of the floor on either side of the gutter may be increased or diminished. The sections of the floor are rendered movable by having projecting joists, which are placed in recesses formed in the outer beams of the floor in such a manner that the joists, together with the sections, are capable of being moved back and forth, while, when the sections have been brought to the desired position, the recesses may be filled by suitable plugs, and thus the sections are firmly held in place.

In the drawing, the letters A B designate the fixed and the movable stanchions of our stall, which are placed at such distances apart as to admit the neck of a cow or other animal between them when closed. The stanchions are arranged immediately in the rear of the mangers E, and between rails C C D D, which are situated near the top and bottom parts of the stanchions, the stationary stanchions A being secured to the rails in any suitable manner, whilst the movable stanchions B are hinged to the rails D D by pivots *a*. F designates the slide that serves to close the stanchions, and fasten the cattle in the stall. This slide F is arranged alongside one of the rails C C, and is provided with inwardly-projecting pins *b*, (best seen in Fig. 3,) which pass through guide-slots *d* (seen in dotted outline in Fig. 1) formed in the approximate rail C, and which extend to behind the movable stanchions A, so that when the slide is moved in the direction of the arrow marked on it in Fig. 1 the pins *b* carry with them the stanchions A, and thereby the same are brought to a vertical position, as indicated in dotted outline, and the cattle are fastened. It will be noticed that the whole series of movable stanchions are closed by a single operation or movement of the slide C, and that a large number of animals may thus be fastened simultaneously. G designates a series of stops, which are pivoted between the rails C C, above the stanchions A B, and which are held in an oblique position by the upper end of the movable stanchions when in an open condition. When the stanchions A assume a vertical position these stops G fall by their inherent weight behind them, and prevent their return movement. The slide F may thereupon be pushed back, and the pins *b* be brought out of contact with the stanchions A, so as to admit of the reopening of the stanchions when it is desired to have them open, in which case the stops G are lifted or swung out, in order to free the stanchions. The slide is provided with a handle, *e*, to facilitate its movement by the hand, and it is guided by straps H, in addition, by means of the slots *d*.

Referring to the floor of our stall, I I′ are its sections, which are constructed of joists or sleepers *f* and planks *g*. The ends of the joists *f* project beyond the outline of the sections of the floor, and J are recesses that receive such projecting joists in them. These recesses J are formed in the inner and upper edges of beams K that constitute the main frame of the floor. Between the sections I I′ is located a gutter, L, which is formed by the joists *f* and by a plank, M, which is sunken

flush with the under surface of the joists. The space formed by this gutter L, and a corresponding space formed over that occupied by the joists *f* in the recesses J, permit of moving the sections I I′ toward or from each other, and especially of moving the front section I toward or from the mangers E.

It is obvious that the area of the floor on either side of the gutter L can thus be increased or diminished, and different length of cattle, as well as young cattle or calves, can be accommodated. When the section I is moved forward it slides under the mangers G, while, when the section I′ is made to follow the movement thereof, and a void space is formed between its rear outer edge and the adjacent beam K′, the space may be filled by simply placing in it a plank kept in readiness for this purpose, and which has its support in brackets N fastened to the beam.

When the sections I I′ have been adjusted in the desired place, and the remaining space of the recesses J is filled up, the sections are rendered exceedingly firm. To fill up the recess we employ plugs O, (see Fig. 4,) the dimensions of which are equal to one-half the length of the recesses, so that if the joists *f* occupy one-half of them, and the plugs are put in place, the joists or the section to which they belong are incapable of moving in any direction. The plugs O have top pieces *h*, which, when the plugs are put in place, are flush with the surface of the beams K, and conceal the projecting ends of the joists.

By the sections I I′ we are not only enabled to change the area of the floor, but also that of the gutter L, inasmuch as by moving the sections toward each other the breadth of the gutter is diminished, and vice versa. The gutter L is intended for the reception of manure, and its bottom M is provided with a series of holes or perforations, *i*, while beneath the gutter L a spout may be so placed that when manure is placed in the gutter the liquid portion thereof runs off, and the gutter is kept constantly in a dry state. The planks *g* of the sections I I′ are arranged at right angles to the gutter L, and parallel to the direction in which the cattle stand.

By this construction of the sections we obtain a floor twice or three times as durable as one in which the planks are laid crosswise.

Either or both the series of stanchions A B are inclined, this feature being in the present example applied to the stationary stanchions, and the advantage thus obtained is that, when the cattle are fastened, and rise from resting on the floor, a great obstruction, had by the old form of perpendicular stanchion, is obviated, and the getting up of the cattle is rendered exceedingly easy.

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

1. The combination, substantially as shown and described, of the fixed stanchions B, the stanchions A, pivoted at their lower ends, the rail C, having the slots *d*, and arranged at the sides of the upper ends of the pivoted stanchions, and the longitudinally-moving slide F, having the inwardly-projecting pins *b* passing through the slots in the rail C, as and for the object specified.

2. The sections I I′ and the gutter L, so arranged relatively to each other as to admit of changing the area of the stall-floor, substantially as described.

3. The sections I I′ and their projecting joists *f*, in combination with the recesses J, of the beams K, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands and seals this 30th day of June, 1875.

ISAAC R. MARSH. [L. S.]
IRA BELL. [L. S.]

Witnesses:
JOHN KINGSTON,
JUSTIN BELL.