

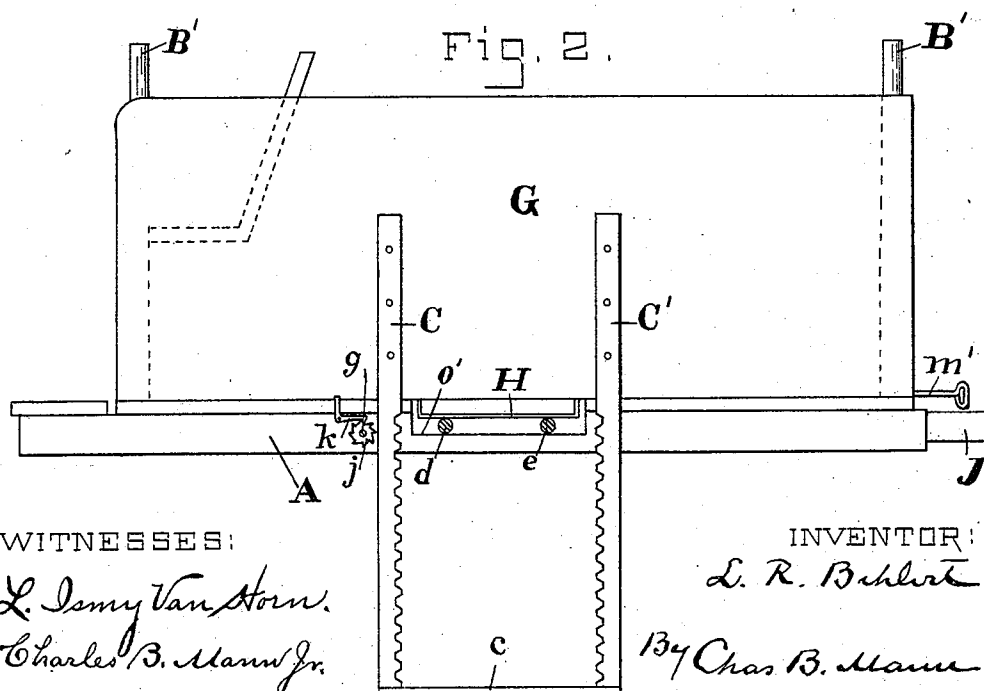
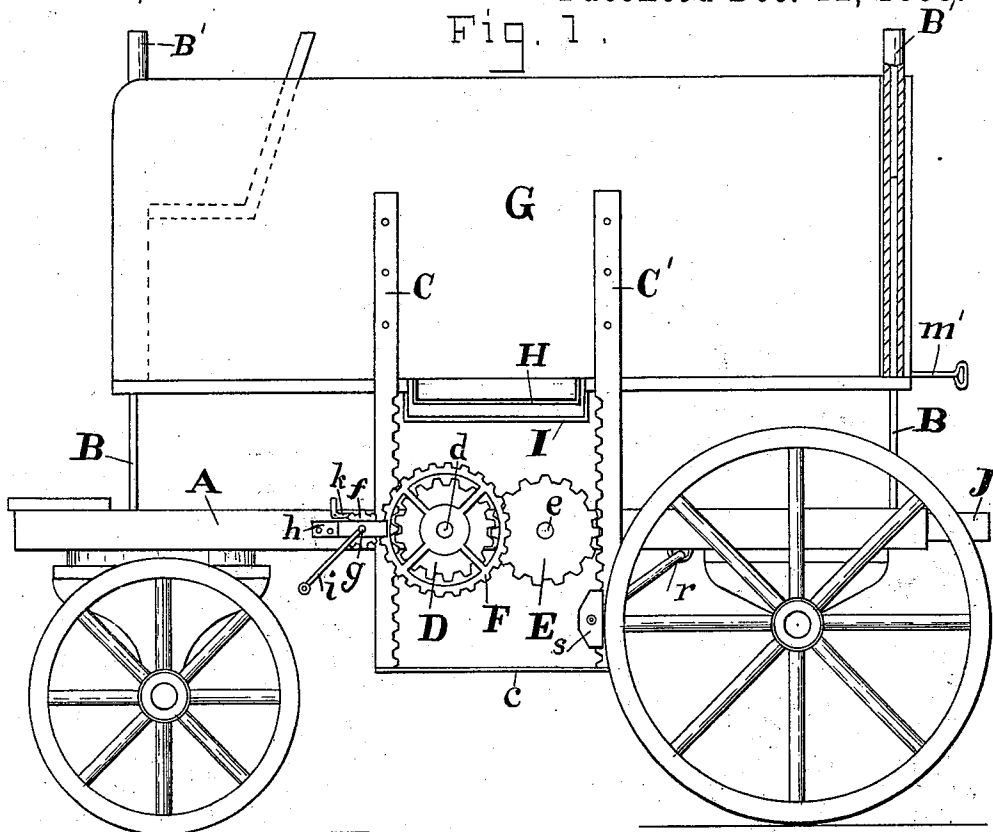
(No Model.)

2 Sheets—Sheet 1.

L. R. BEHLERT.
COAL DUMPING WAGON.

No. 510,670.

Patented Dec. 12, 1893.



WITNESSES:

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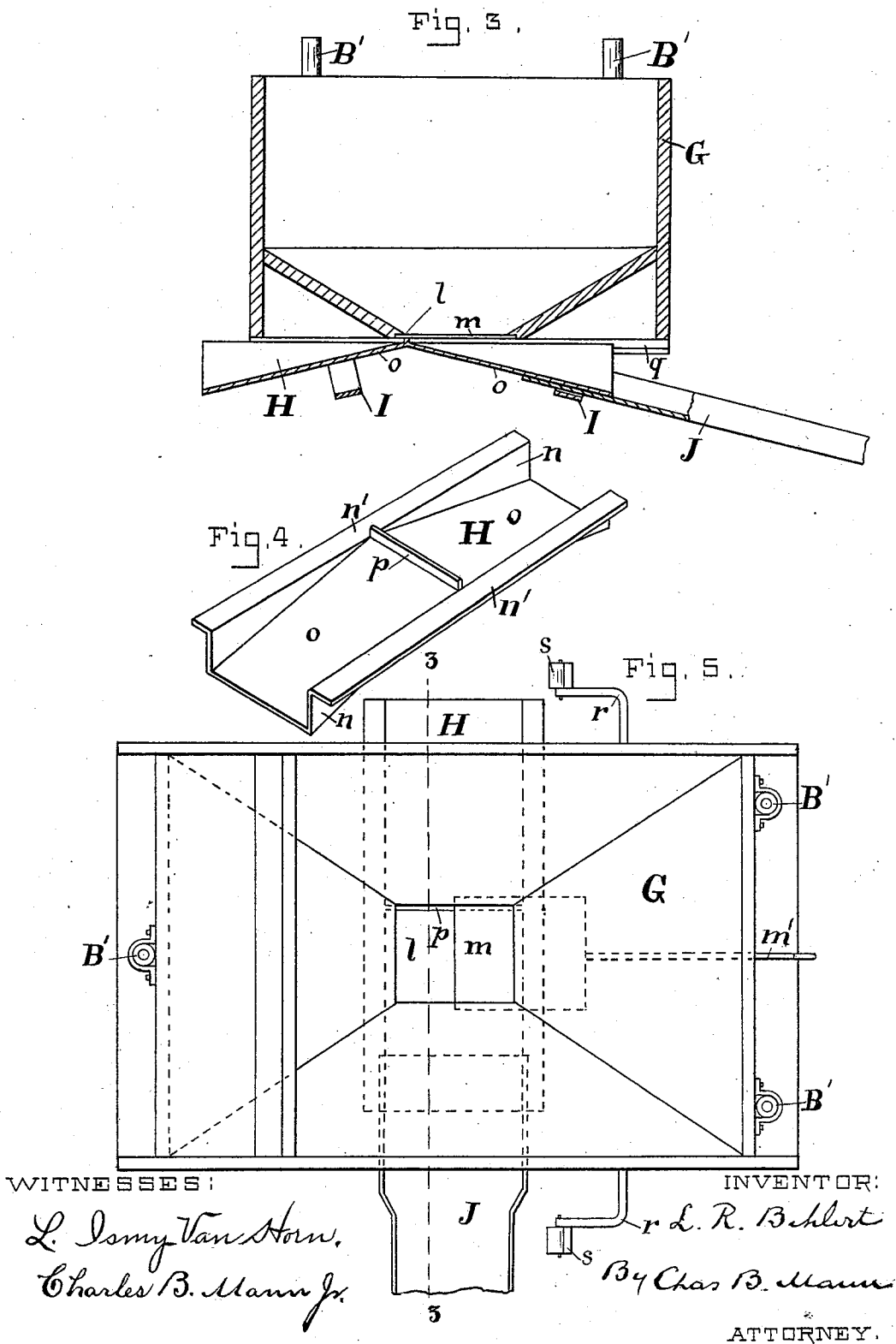
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UNITED STATES PATENT OFFICE.

LORENZ R. BEHLERT, OF BALTIMORE, MARYLAND.

COAL-DUMPING WAGON.

SPECIFICATION forming part of Letters Patent No. 510,670, dated December 12, 1893.

Application filed September 21, 1893. Serial No. 486,087. (No model.)

To all whom it may concern:

Be it known that I, LORENZ R. BEHLERT, a subject of the Emperor of Germany, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Coal-Dumping Wagons, of which the following is a specification.

This invention relates to a coal-dumping wagon, and has for its object to provide a wagon from which the coal may be unloaded and delivered into a cellar through the medium of a chute placed at either side of the wagon-body.

The invention consists in certain features of construction and combination of parts hereinafter described and claimed.

Referring to the drawings, Figure 1 is a side view of the wagon and shows the body partly elevated above the bed-frame, which is the position the body takes while the coal is being dumped. Fig. 2 is a side view of the body resting down on the bed-frame. The running-gear in this figure is not shown. Fig. 3 is a central cross-section of the wagon-body on the line 2—2. Fig. 4 is a perspective view of the shifting chute-head. Fig. 5 is a top or plan view of the wagon-body, and shows the chute in position at one side.

The letter A designates the bed-frame of the wagon, to which upright guide-rods, B, are attached, in the present instance three in number. The wagon-body has tubes, B', in which the said guide rods run when the wagon-body is raised or lowered. The wagon-body has secured on each side two vertical rack-bars, C, C'; the lower ends of these rack-bars depend below the wagon-body and are connected by a cross-bar, c.

To either side of the bed-frame, A, is attached suitable gearing which meshes with the rack-bars and raises or lowers the same and the wagon-body. In the present instance this gearing comprises two cog or gear wheels, D, E, of equal size and keyed on shafts, d, e, respectively, said shafts running across the bed-frame, A; these cog-wheels mesh with each other and with the vertical rack-bars. On one side of the wagon-body a larger gear wheel, F, is located on one of the shafts, d, outside of the gear-wheel, D; this wheel, F, meshes with a pinion, f, outside and forward of the rack-bars, and receives motion there-

from. The pinion, f, is on a shaft, g, supported by a brace, h, and has a crank, i, by which it is turned and motion communicated to the gear-wheels, F, D, E. A small ratchet-wheel, j, is attached to the shaft, g, in the rear of the pinion, f, and a pawl, k, in proximity thereto engages therewith; the purpose of this pawl and ratchet is to stop any downward movement of the wagon-body when the latter is raised to a desired elevation.

The wagon-body, G, has a hopper-bottom with an opening, l, in the center; and a slide-gate, m, is arranged to slide horizontally back and forth and open or close said opening. This slide-gate is operated by means of a rod, m', extending rearwardly to the back of the wagon-body as shown, or by any other suitable means.

On the under side of the wagon-bottom is a chute-head, H, which is arranged to shift sidewise of the wagon-body beneath the center opening, l, and when shifted to one side discharge the contents of the wagon-body at either side as desired. This chute-head is double, that is, it inclines from the center toward each end; it comprises two side pieces, n, to which the inclined bottom pieces, o, are connected; these bottom pieces are separated at their high ends by a division bar, p, and therefrom incline downwardly. Each side piece has a lateral flange, n', and the wagon-body has guide-ways, q, into which the flanges slide. The bed-frame, A, has notches or cut-away places, o', in each of its side bars, and when the wagon-body is seated on the bed-frame the two ends of the chute-head, H, occupy these notches.

A supporting loop, I, having two laterally-bent ends is secured to the under side of the wagon-body on each side, one of these loops being below each inclined end of the chute-head and serving to support one end of the usual chute, J, by which the coal is discharged. When not in use this chute is suitably supported between the bed-frame and the wagon-body.

The wagon has a braking mechanism which comprises in part a transverse bar secured loosely to the under side of the bed-frame and has its ends laterally and outwardly bent, as at r, to form supports for brake-shoes, s. By bending the brake-bar as at r, the vertical

rack-bars, C, C', are avoided and yet the shoes, s, are in proper position for the wheels.

In operation the chute-head is shifted so that its division bar rests against the opposite side of the central opening, l, from which the coal is to be discharged; this is done after the wagon-body is raised to the desired elevation by the crank and gearing, and the enlarged mouth of the chute, J, is placed in position under that side of the chute-head from which it is desired to discharge coal; the slide-gate, m, is then opened and the discharge of coal follows.

It is obvious that additional gear-wheels may be provided between the large gear-wheel, F, and the pinion, f, by which additional power may be gained for elevating the wagon-body.

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

1. The combination of the bed-frame, A, having guide-rods, B; the wagon-body having tubes for the guide-rods and provided with a hopper bottom; two vertical rack-bars secured on each side of the wagon-body and depending therefrom; gearing on the bed-frame with

cog-wheels engaging the rack-bars, and a slide-gate in the bottom of the hopper bottom.

2. The combination of the bed-frame, A; the wagon-body having an opening in its bottom and provided on the bottom with cross-wise guide-ways, q; a double inclined chute-head highest at the center and inclining therefrom toward opposite ends and movable in said guide-way crosswise of the wagon-body; and means to raise and lower the wagon-body.

3. The combination of the frame, A, having its two side bars each provided with a notch or cut-away, o'; the wagon-body having an opening in its bottom; a double inclined chute-head attached to the wagon-body and highest at the center and inclining therefrom toward opposite ends and said ends adapted to seat in the said notches on the bed-frame when the wagon-body is in a lowered position, and means to raise and lower the wagon-body.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

LORENZ R. BEHLERT

Witnesses:

CHARLES B. MANN, Jr.,
C. C. HINES.