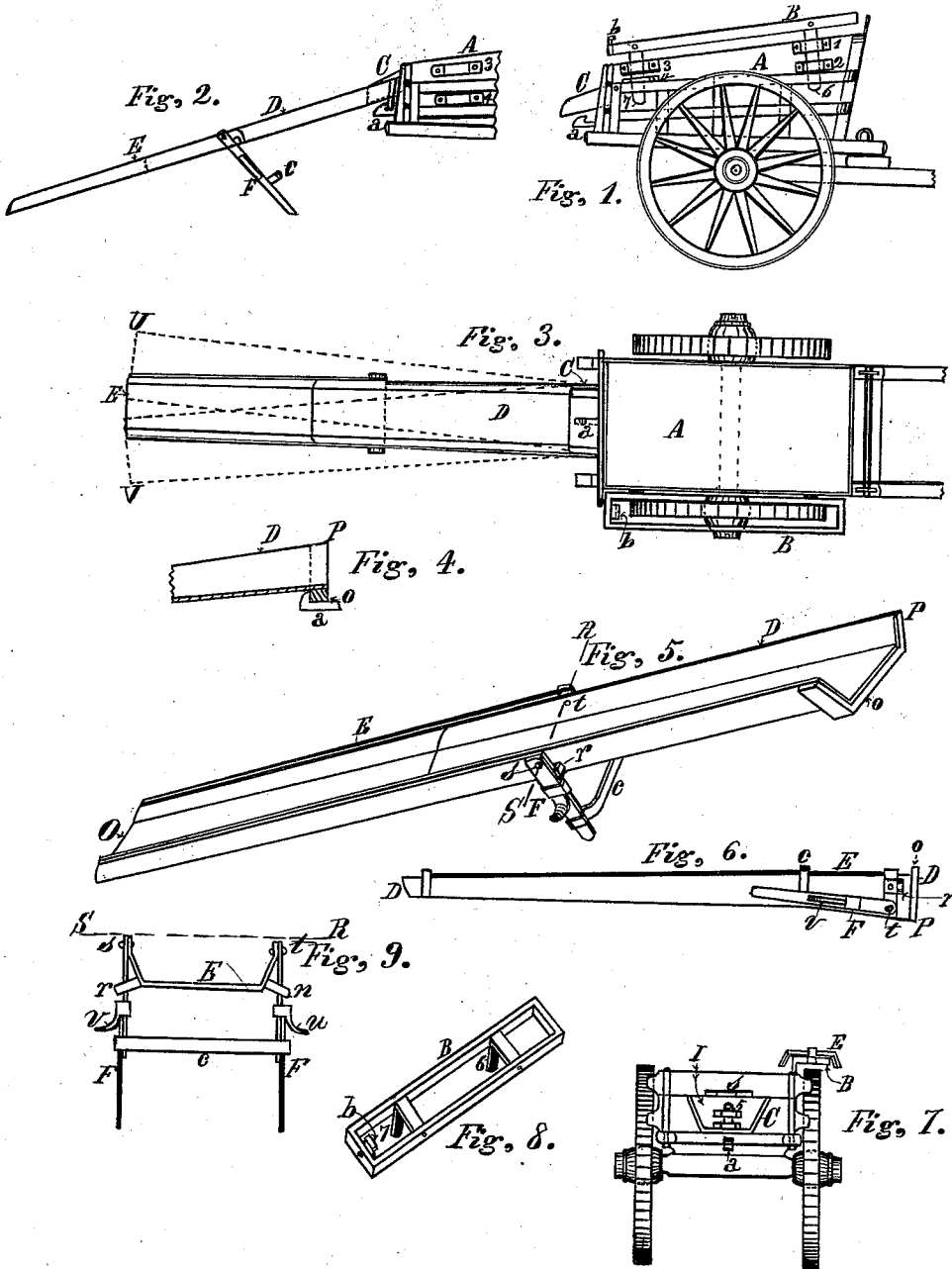


J. S. SIBLE. .
COAL-CART.

No. 176,700.

Patented April 25, 1876.



Witnesses
M. L. Stacy
Wm. I. Patton

Inventor.
John. S. Sible

UNITED STATES PATENT OFFICE.

JOHN S. SIBLE, OF HARRISBURG, PENNSYLVANIA, ASSIGNOR TO HIMSELF
AND JOHN C. COWEN, OF SAME PLACE.

IMPROVEMENT IN COAL-CARTS.

Specification forming part of Letters Patent No. **176,700**, dated April 25, 1876; application filed
November 11, 1875.

To all whom it may concern:

Be it known that I, JOHN S. SIBLE, of the city of Harrisburg, State of Pennsylvania, have invented a new and useful Improvement in Coal-Carts; and I do hereby certify that the following is a full, clear, and exact description of the same, reference being made to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon.

The object of this invention is, first, to provide a coal-conveying trough or chute that is separate from the coal cart or wagon, and that can be quickly attached to, and used in connection with, an ordinary coal-cart, said trough being constructed in a peculiar manner, and connected to said cart in a novel way, as is hereinafter set forth; second, my invention further provides a device for supporting or carrying the coal-trough when not in use, said device being made detachable from the cart when not required for service, substantially as hereinafter set forth.

In the drawings constituting a part of this specification, Figure 1 represents a side elevation of a cart with the trough-supporter in position thereon. Fig. 2 is a side view of the rear end of a cart, showing the coal-conveying trough connected thereto, and extended for use. Fig. 3 is a top or plan view of a cart having the trough attached and extended for the delivery of coal. Figs. 4, 5, 6, and 9 are enlarged views of the coal-trough, Fig. 5 being a perspective view of the same extended for service. Fig. 6 shows the trough packed for carriage upon the supporting-frame. Fig. 9 is a cross-section of the trough taken on the line S R in Fig. 5. Fig. 7 is a rear-end elevation of a coal-cart, showing the trough in a folded position upon the carrying-frame, said frame being secured in place to the cart. Fig. 8 is a perspective view of the supporting-frame before mentioned.

In all the figures of the drawings like letters and figures represent like parts of the mechanism.

The coal-conveying trough represented in Fig. 5 consists of two separate sections or pieces. They are made of any suitable sheet metal. The sides are turned up at an angle

to the bottom, as shown in Fig. 5, and are made of sufficient height to prevent overflowing of the coal. The bottom of said sections may be made flat, as shown, or curved in cross-section, as may be preferred. The outer section E is made of such proportionate width to the inner section D as to permit the latter section to fit into it, so that the end of section D will lie in section E, as is shown in the drawing. (See Fig. 5.)

In use, it is intended that the end O shall be placed in the cellar or vault hole. The other end of section E is supported in an elevated position by a pair of adjustable legs, F F; these are shown in position in Figs. 2, 5, and 9. They consist of pieces of iron of a suitable length, width, and thickness, rectangular in cross-section. The upper ends of said legs are pivoted to the sides of the trough, as shown at *s t*. (See Fig. 9.) Each of the legs F F are made in two pieces; the upper portions are attached to the trough as stated. The lower parts are made to slide upon the upper pieces, and are provided with the spring-clips *u v*, (see Fig. 9,) that are designed to secure the lower parts in connection with the upper pieces in any desired position, so that the legs can be made longer or shorter, as may be required, and of different lengths in regard to each other if necessary. The spring-clips *u v* are provided with dowels or short pins upon their inner surfaces that come in contact with the legs; said dowels enter one of a series of holes made for their reception in said legs. Pulling outward upon the curved projecting portion of either clip releases the dowel and permits an alteration in position of the same.

The upper halves of the legs F F have a cross-brace, *c*, rigidly attached to their lower ends. Said brace has clips or sockets formed upon its ends, through which the lower halves of said legs F F slide when the spring-clips *u v* are operated. When the trough is to be packed for transportation, the legs F F can be folded down upon the section E, as is shown in Fig. 6. Upon the end P of the section D of the coal-trough, the band or ledge *o* is rigidly secured, upon the outer surface of said end, as is shown in Fig. 5. It answers a

twofold purpose, first, as a stiffening-band for the trough D; second, as a catch or ledge by means of which said section D is attached or connected to the rear end of the cart. By inspection of Fig. 1, a trough or short fixed spout, C, will be observed. Said spout is attached to the tail board of the cart. A gate or hinged door closes a proper-sized aperture cut in said tail-board. In Fig. 7 is shown a view of said door. It is placed in the lower board, the rear end of the cart being closed by two boards of different widths, as will be seen in said Fig. 7. It may be proper here to state that, if a greater degree of elevation is desired, the position of the two tail-boards can be relatively changed, the one provided with the door and fixed spout C being placed above, the other below. The door is held shut by the slide-bolt 5. (See Fig. 7.)

In Fig. 8 is shown a view of the trough-supporting frame. This consists of a rectangular frame of wood or other suitable material. It is provided with the knee-braces 6 7. These are rigidly secured to the frame, and project below the same, as is shown, thus forming tongues or standards for the support of said frame in proper position upon said cart-body. The connection thereto is made by means of the clips 1 2 3 4. (See Figs. 1 and 2.) Said clips are securely fastened to the side of the cart-body in the positions shown in the figures, the tongues 6 7 being inserted therein until shoulders formed upon them abut against the upper edges of the two lower clips 2 4. (See Fig. 1.) The frame B is now in proper position for the reception and carriage of the coal-troughs D E. After said troughs are mounted upon the frame B a turn-button, *b*, (see Figs. 1, 3, and 8,) is turned up at the rear end of the frame B, so as to project above its upper edge and hook over the ends of the troughs D E, and as said frame inclines from front to rear, as will be seen in Fig. 1; the troughs are thereby safely secured in place.

In operation, the coal-trough E is adjusted so that its end O projects into a cellar-window or vault-hole. The legs F F are turned down in the position shown in Fig. 5. It will be noticed that they incline backward somewhat, and strike against the shoulders *r n*. (See Figs. 5 and 9.) This gives the trough a firm support. Any desired degree of pitch or inclination from the end to which the legs F F are attached to the end O may be obtained by operating the spring-clips, and thereby lengthening or shortening said legs F F, as has been hereinbefore described. If the trough is placed upon uneven ground, either leg can be adjusted in length to suit the locality and secure said trough in a proper position.

The trough E being properly placed, the trough D has its end P inserted below the fixed spout C, so that the ledge *o* will hook

over or into the hook *a*. Said hook is located centrally beneath the spout C, and is rigidly secured to the tail-board or frame of the cart-body. The free end of the trough D lies in the trough E, and thus forms a continuous trough or conveying-chute for the passage of coal from the cart-body to the cellar or vault. The gate is now opened, and a large portion of the load will run into the cellar. A small part may require to be shoveled from the cart-body into the chute or trough.

The manner of connecting the end P of the trough D to the cart-body by means of the ledge *o* and hook *a* permits a lateral movement of the troughs D E, said point of connection being the center of motion. This is an essential feature of my invention, as it obviates the necessity of backing the cart exactly in front of the coal-hole or cellar-window, the side movement of the end of the trough permitting it to be adjusted in connection with the place of reception of the load if the cart-body is not directly in line with the same, as will be seen by reference to Fig. 3, the lateral movement of the outer end of the trough being represented by the dotted lines U V. The hook *a* and ledge *o* on the end P of the trough D are clearly shown in the sectional Fig. 4.

I am aware that inclined troughs for conveying coal from a cart-body to a cellar or vault have been, and are now, in common use. I do not therefore desire, broadly, to claim their use for such purpose. Neither do I claim a hinged door placed at the rear of a cart-body; but

What I do claim as new, of my invention, and desire to secure by Letters Patent of the United States, is—

1. A coal-conveying trough, composed of the sections D E, when one of the sections E is provided with the adjustable pivoted legs F F, and the other section D has the projection or ledge *o* formed upon the end P, substantially as and for the purpose set forth.

2. A coal-conveying trough, D E, that is provided with the pivoted legs F F and projecting ledge *o*, in combination with the hook *a* that projects from the tail-board of the cart immediately beneath the spout C, the hook *a* and ledge *o* forming a yielding connection, and thus permitting the outer end of the conveying-trough to be adjusted laterally, in the manner herein set forth, and for the purpose specified.

3. The detachable trough-supporting frame B, constructed and operating substantially as herein set forth, and for the purpose described.

JOHN S. SIBLE. [L. s.]

Witnesses:

W. L. STOERY,
WM. P. PATTON.