

J. A. Preston,

Scow.

No. 103,502.

Patented May 24, 1870.

Fig. 1.

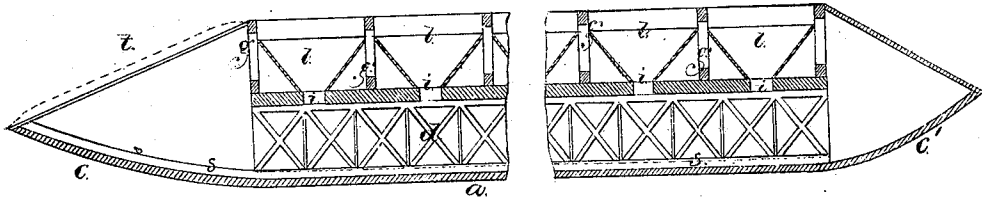


Fig. 2.

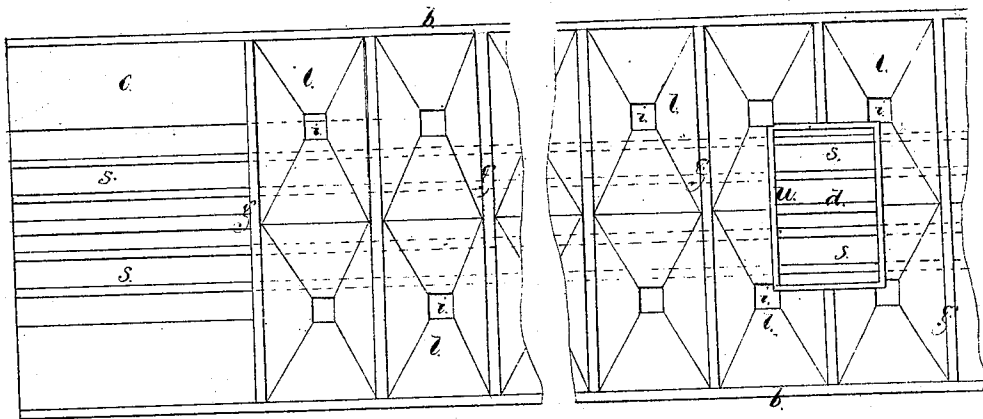
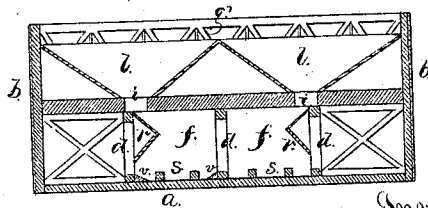


Fig. 3.



Witnesses
Chas. Smith
Geo. A. Smith

Inventor
J. A. Preston
per *L. M. Purcell* atty.

UNITED STATES PATENT OFFICE.

JULIUS A. PRESTON, OF NEW HAVEN, CONNECTICUT.

IMPROVEMENT IN COAL-BARGES.

Specification forming part of Letters Patent No. 103,502, dated May 21, 1870.

To all whom it may concern:

Be it known that I, JULIUS A. PRESTON, of New Haven, in the county of New Haven and State of Connecticut, have invented an Improvement in Barges for Coal, &c.; and I do hereby declare the following to be a full, clear, and exact description of the said invention.

In many places, especially along the coast and on navigable rivers, large amounts of coal are consumed, and the coal has to be brought from a distance, usually in barges and canal-boats, and upon arrival at its final destination is delivered into a coal-yard, and from that distributed by carts to consumers. This operation usually involves the handling and transfer of the coal, first, to the railroad-cars; second, to the barge or boat; third, to the yard, and, fourth, to the consumer. These several handlings are costly, and the coal becomes broken and dusty, hence less valuable. The rent of the coal-yard is also a source of expense.

The object of my invention is to lessen the handling of the coal, and to deliver the same in a manner to prevent abrasion and the formation of dust in shoveling the coal.

I make use of a barge with bins sufficiently elevated above the bottom for the introduction in a tunnel below of a cart, car, or other receptacle for the coal.

I provide an incline at the end of the tunnel, up which the receptacle is drawn when filled; and screens are also provided for the coal to be sifted as it runs from the bins into the cart or receptacle. By this construction the coal is broken but little, because the shoveling and heaving of the coal are dispensed with entirely, as the coal is run into the bins of the barge from the cars that receive it at the mine, and then the delivery from those bins is made, as required, directly into the carts or receptacles that convey the coal to the consumer or to its destination.

I construct my barge in a peculiar manner, so as to obtain great strength and accommodate the aforesaid parts, and the said barge can be moored to a wharf or dock or anchored in a river or bay, and the expense of a coal-yard and the attendant inconveniences from dust be avoided.

In the annexed drawings, Figure 1 is a section longitudinally, showing portions of the ends of the barge. Fig. 2 is a plan of part of

the end and middle portions of the barge; and Fig. 3 is a section transversely through the bins and tunnel.

In the drawings, *a* is the bottom, *b b* the sides, and *c* and *c'* the ends, of the barge. The timbers and planking are to be of any usual or desired character. I however prefer that the sides be made as longitudinal trusses covered with diagonal planking.

Within the barge I make use of one, two, or more longitudinal trusses, *d*, according to the size of the barge, so as to leave tunnels or cart-ways *f*, in which movable receptacles are brought below the delivery-chutes of the bins.

Above the trusses *d* are the transverse trusses *g*, extending from side to side, and these trusses are to be bolted firmly together, so that the barge is very strong in every direction.

Between the trusses *g* are bins *l*, formed of suitable planking; and I prefer that the bottoms of the bins *l* should be inclined or hopper-shaped, in order that the coal may run to the delivery openings or chutes *i*, placed at suitable positions. The coal or other material might, however, lie upon the deck *l'*. Each opening, *i*, is provided with a suitable slide or other device, to allow the coal to run, when desired, into a cart or other receptacle in the tunnel below the said opening. I also provide an inclined screen, *r*, at the opening *i* between that and the cart or receptacle, so that the dust will be separated from the coal as it runs down, and this screen may be a fixture, as shown, or made movable from place to place. The tunnel is made with an incline at the end *c*, running up above the water-line.

I have shown a railway, *s*, for a car to run upon; but this may be dispensed with, and an ordinary coal-cart or other receptacle be employed. Where coal is to be transferred to railroad-cars, the track *s* allows the train to be run into the tunnel down the incline at the end *c*; or the cart or receptacle can be passed in or drawn out with facility, and both ends of the barge may be open and inclined like the end *c*, so that the receptacle may pass in at one end and out at the other end of the tunnel. Suitable doors or hatches may be provided at the ends, as shown by dotted lines at *t*, to keep out water, and a well-hole, *u*, or holes passing through between the bins and properly cased, may be employed for light and venti-

lation. This well-hole also allows the bucket or receptacle into which the coal is run to be lifted out bodily where this mode of delivery to a yard or otherwise is the most convenient.

A shed or movable deck may be provided to screen the coal from rain or snow, and keep the same dry and in good condition.

The trusses in this barge may be made of timbers, framed together diagonally, as shown, or a pile of timbers bolted together or formed in any other convenient manner may be employed.

Longitudinal bearers *v* may be introduced at the sides of the trusses, to strengthen the planking of the bottom of the tunnel.

I do not herein claim a railway applied on a vessel for transporting coal or other materials, nor a vessel with a longitudinal tunnel for a car or cart.

I claim as my invention—

1. A barge or vessel formed with longitudinal trusses and a tunnel, in combination with transverse trusses placed above the longitudinal trusses, substantially as set forth.

2. A screen applied between the discharge-opening of the bin and the cart or receptacle, in combination with the tunnel of the barge, substantially as and for the purposes set forth.

3. The inclined bottoms of the separate bins, in combination with the tunnel and openings from said bins into the tunnel, substantially as and for the purposes specified.

In witness whereof I have hereunto set my signature this 22d day of September, A. D. 1869.

J. A. PRESTON.

Witnesses:

GEO. D. WALKER,
GEO. T. PINCKNEY.