(No Model.)

W. F. COWDEN.

CANAL CONVOY.

No. 323,639. Patented Aug. 4, 1885.

Fig. 1.

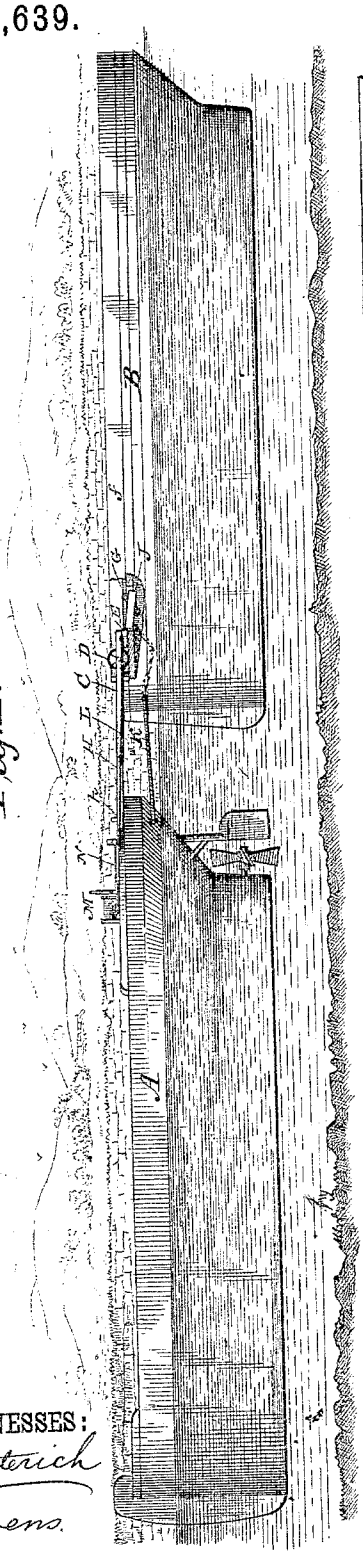
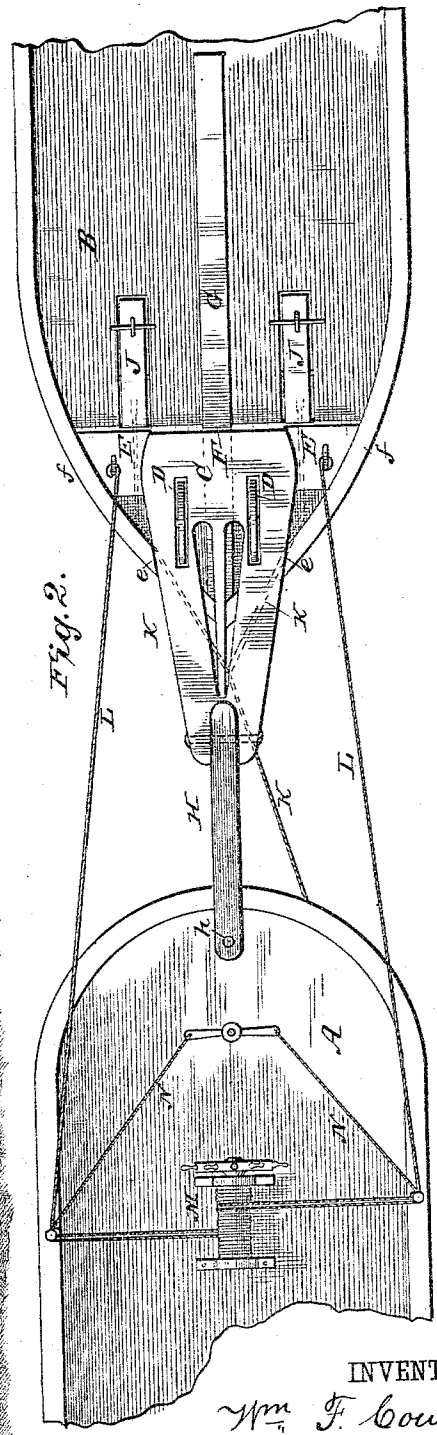


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM F. COWDEN, OF CUMBERLAND, MARYLAND.

CANAL-CONVOY.

SPECIFICATION forming part of Letters Patent No. 323,639, dated August 4, 1885.

Application filed June 2, 1885. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. COWDEN, a citizen of the United States, residing at Cumberland, in the county of Alleghany and State of Maryland, have invented certain new and useful Improvements in Canal-Convoys, of which the following is a description.

This invention relates to that class of devices whereby one or more canal-boats are secured as a convoy to a propeller or escort; and its object is to provide means whereby the convoy may be allowed to drop to some distance astern of the escort in order that the screw-propellers thereof may have free water-way; means for maintaining a given distance between the boats in order that one may not run against the other by momentum, and means whereby the separating device may be disengaged and the two boats be drawn close together for the purpose of passing through locks, &c., at will by the engineer of the escort without leaving his own boat.

To this end my invention consists in the construction and combination of parts forming a canal-convoy, hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a propeller and my convoy, and Fig. 2 is a detailed plan view of a portion of the same on a larger scale.

A represents a propeller, which may be of any usual construction adapted to tow boats.

B represents one of my convoys, which may be a boat or barge of any usual construction for towing purposes, either as a conveyance for freight or passengers; but its principal purpose is, as at present designed, for the transportation of coal and other freight.

C is a carriage, mounted on wheels D, to roll on the deck of the boat B, and provided with a transverse timber, E, at its rear end, which is centrally grooved at F, on its under side, to fit over a guide-rail, G, which is secured longitudinally on the center of the deck. The body of the carriage C is shaped like wagon-hounds, and is provided at the forward end with a pole or link, H, pivoted to swing vertically between the hounds, but closely fitted to prevent sidewise play. The forward end of the link is provided with a vertical hole, *h*, adapted to be pivoted to the propeller on a pin or other connection, whereon the two boats may swing out of line with each other for steering and other purposes. When the boats are moving, the carriage C is drawn forward, the hounds projecting through an aperture in the bulwark, against which they fit closely on side bearings, *e*, and the transverse timber E fits closely within the form of the bulwarks *f*, so that the link when fully projecting is held rigidly sidewise, to prevent being doubled up and allowing the boats to run together, as they would do if the links were pivoted on vertical pins at both ends.

J J are latches pivoted in the deck, and rising at their forward ends by the weight of their rear ends to form detents, against which the carriage may abut in stopping the momentum of the rear boat when the forward boat slacks its speed or when the boats are to be backed. These detents are provided with lines K, which extend forward to the engine-room of the propeller, whereby the detents may be disengaged, permitting the carriage C to recede when it is desirable to draw the two boats close together, and whereby such drawing may be done, the lines being passed around any suitable windlass or a capstan for that purpose. The rail G serves to maintain the carriage in line when it is idle, ready to be brought into service.

L L are lines which may be wound around the wheel M of the propeller with the tiller-lines N, one line winding on as the other unwinds, thus acting to curve the line of the boats and cause them to diverge from a straight course, in the same manner as a rudder acts on a single boat.

Other stationary side guides may be used for the hounds instead of the bulwark of the boat.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a boat, B, and side bearings, *e*, and bulwarks *f* thereon, of a carriage, C, fitted to slide between the said bearings, and having a transverse timber, E, fitting between the bulwarks when forward, a tongue to the carriage, and detents J, pivoted to the boat to rise behind the carriage, substantially as shown and described.

2. The combination of a boat, B, a carriage, C, fitted sidewise therein, removable stops behind the carriage, and a tongue hung to the carriage on a horizontal pivot, substantially as shown and described.

3. The combination of a boat having a central rib rising from its deck, and provided with side bearings, as described, a carriage fitted between the said bearings and provided with a notch to fit upon the said rib, means for attaching the carriage to a boat ahead, and the detents J and lines L therefor, substantially as shown and described.

The above specification of my invention signed by me in the presence of two subscribing witnesses.

WILLIAM F. COWDEN.

Witnesses:
W. X. STEVENS,
SOLON C. KEMON.