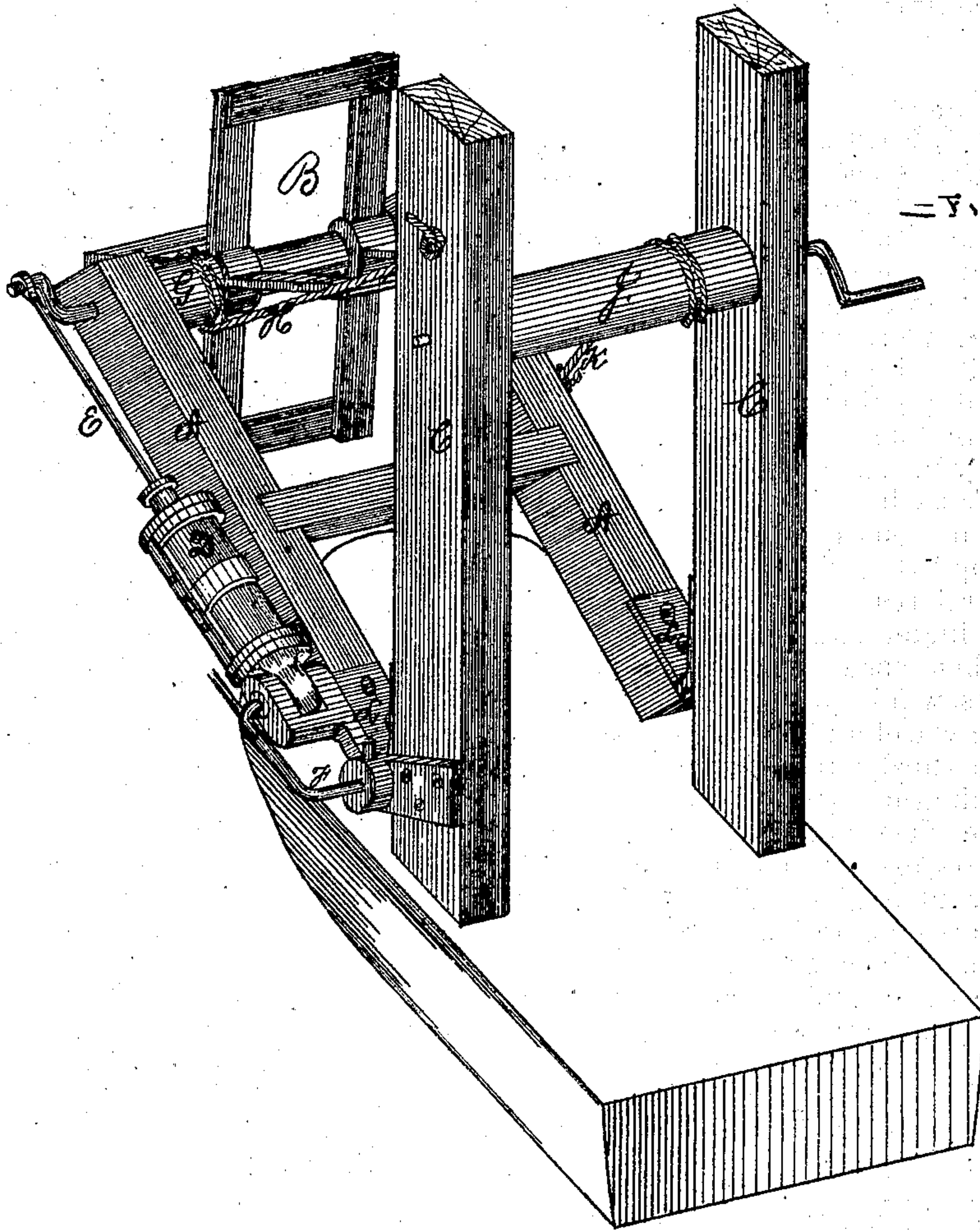


NATHANIEL T. EDSON.

Improvement in Propulsion of Vessels.

No. 120,371.

Patented Oct. 31, 1871.



Witnesses.

Wm M Jones
A. A. Jones

Inventor.

Nathl T Edson

UNITED STATES PATENT OFFICE.

NATHANIEL T. EDSON, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN PROPULSION OF CANAL-BOATS.

Specification forming part of Letters Patent No. 120,371, dated October 31, 1871.

To all whom it may concern:

Be it known that I, NATHANIEL T. EDSON, of the city of New Orleans, parish of Orleans and State of Louisiana, have invented certain Improvements Applicable to Canal-Boats to be propelled by steam, caloric electricity, or other motor, of which the following is a specification:

The first part of my invention relates to the combination of a vibrating-cylinder engine with a paddle-wheel and its timbers, when used in connection with canal-boats, whereby the timbers and wheel may be elevated on entering a lock, so that the boat will occupy no additional space in the lock in consequence of the wheel and power being applied to it. The second part of my invention relates to the combination, with a vibrating-cylinder engine, paddle-wheel, and its timbers, when used in connection with canal-boats, of posts, windlass, and rope or chain, so as to elevate the wheel and its timbers on entering locks. The third part of my invention relates to the combination, with a vibrating-cylinder engine, paddle-wheel, and its timbers, when applied to canal-boats, of posts, a drum, and rope or chain, so that said engine will elevate the wheel and its timbers on entering locks.

Figure 1 is a perspective view of the after part of a boat with the wheel and engine attached and partly elevated preparatory to entering a lock.

A and A are timbers, to which the wheel B is attached. C and C are posts firmly attached to the deck of the boat, to which posts timbers A are connected by hinges L. D is the cylinder, which is connected to one of the timbers A by journal and box, so as to vibrate on revolving of the wheel. E is the piston-rod, which connects directly with the wheel-shaft crank. F is the

steam-pipe, on which a joint is formed in line with the center of hinges L, so as to admit of the timber and wheel attached being elevated. A joint is also formed on the pipes in line with the journal which connects cylinder D with timber A, so as to admit of the vibration of the cylinder. G is a drum placed upon and attached to the wheel-shaft. Preparatory to entering a lock rope H is attached to the drum and steam admitted to the engine, which will cause the timbers A and wheel to ascend until the timbers rest against the posts C. J is a drum and windlass, to which one end of rope H is attached, and its other end attached to the wheel-timbers, by which windlass a single engine is assisted in the elevation of the wheel; or the timbers and wheel can be elevated by the windlass without the assistance of the engine. The post or posts can be hinged to and braced from the deck of the boat, and a mechanical or feathering-bucket paddle-wheel may be substituted.

I claim as my invention—

1. The combination of the cylinder D and the timbers A and the wheel B, substantially as and for the purpose hereinbefore set forth.

2. The combination, with the cylinder D, timbers A, and wheel B, of post C, drum and windlass J, and rope K, substantially as and for the purpose hereinbefore set forth.

3. The combination, with the cylinder D, timbers A, and wheel B, of post C, drum G, and rope H, substantially as and for the purpose hereinbefore set forth.

NATHL. T. EDSON.

Witnesses:

WM. MCC. JONES,
A. A. JONES.

(139)