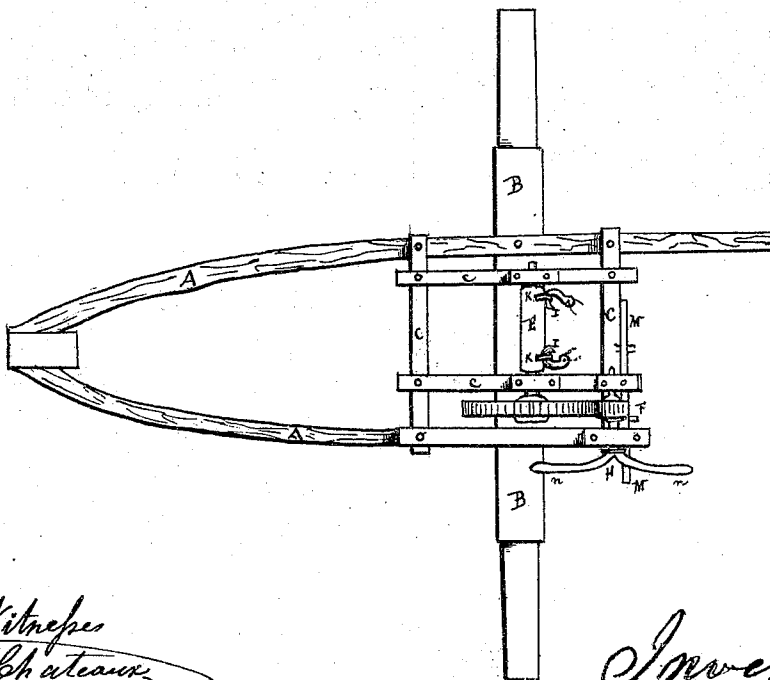
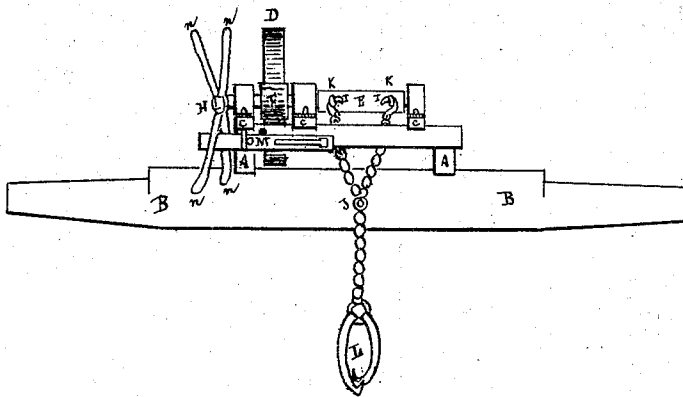


A. Kirkwood's Improved Hoister for log boats.

No. 118,460.

Patented Aug. 29, 1871.



Witnesses
R. Chateaux
Philippe D'Anges

Inventor
A. Kirkwood

UNITED STATES PATENT OFFICE.

ALEXANDER KIRKWOOD, OF JACKSON COUNTY, MISSISSIPPI.

IMPROVEMENT IN LOG-CARTS.

Specification forming part of Letters Patent No. 118,460, dated August 29, 1871.

To all whom it may concern:

Be it known that I, ALEXANDER KIRKWOOD, of Jackson county and State of Mississippi, have invented certain Improvements in hoisting logs or timber on timber-wheels for hauling, of which the following is a specification:

My invention relates to the combination of cog-wheels with a flange-wheel, levers, grapple-chain, log-hooks, and slide, in such a manner as to bring all the working parts conveniently near together:

In the accompanying drawing, Figures 1 and 2 are views of a machine embodying my invention, and showing all its working parts.

B B is the axle; A A, the hounds, the left-hand one of which is cut short to make more room, and the right hand left longer, in order to counterbalance the tongue. C C, the frame to which the machine is secured; this frame is firmly bolted to the hounds A A. D, the main spur-wheel; E, the main shaft; F, the pinion; G, the pinion shaft; H, the flange-wheel, which is adapted to the holding of four wood levers; J, the grapple-chain, which chain is about its middle forked, the upper end dividing into two parts; I I, the chain-hooks, which are at the upper ends of the chain; K K, the loops on the

main shaft, into which the chain-hooks fasten; L, the log-hooks; *n n n n*, the levers, which are attached to the flange-wheel H by bolts; M, the slide to catch and hold one of the levers *n*, thereby preventing the log or weight, when raised, from running down.

The above-described wheels should be cast-iron, and their shafts wrought-iron, and hung in metal boxes.

To hoist a log or weight, first fasten the log-hooks L to it. Then, with the levers *n n n n*, turn the flange-wheel H, which moves the pinion F, turns the main spur-wheel D, and winds the grapple-chain J on the main shaft E; and, when the log or weight is up, then move the slide M to the left hand, and it will catch one of the levers *n* and prevent the log or weight from running down.

I do not claim the pinion or spur-wheels, for they are a well-known device.

I claim as my invention—

The combination of the several parts of the log-cart, as shown and described.

ALEXANDER KIRKWOOD.

Witnesses:

O. G. STONE,
WILLIS ROBERTS.