

JOSEPH M. STORY.

Improvement in Driving Paddle-Wheels.

No. 115,380.

Patented May 30, 1871.

Fig.1.

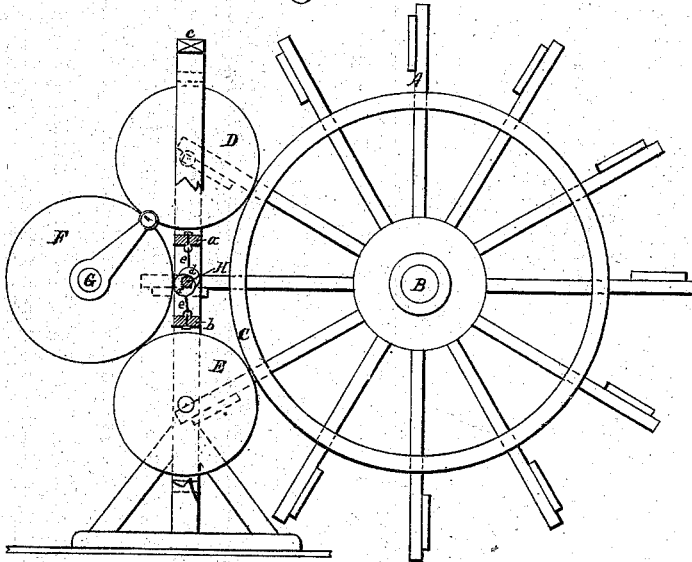


Fig.3.

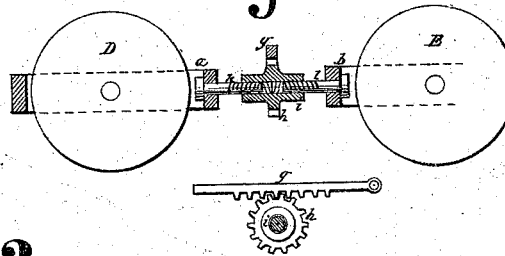
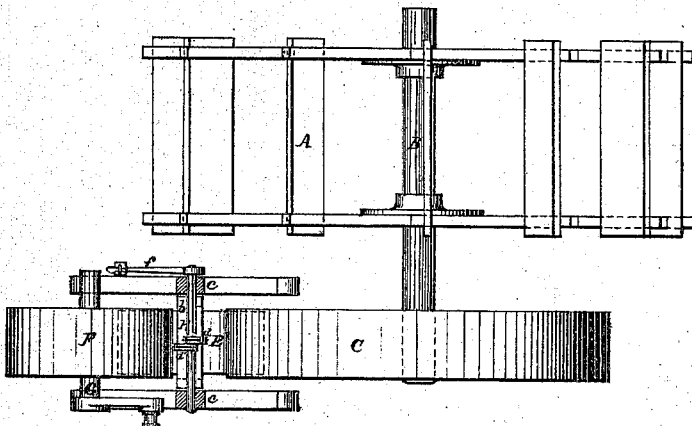


Fig.2.



Witnesses:

H. O. Beck

Inventor.

Joseph M. Story

# UNITED STATES PATENT OFFICE.

JOSEPH M. STORY, OF CINCINNATI, OHIO.

## IMPROVEMENT IN DRIVING PADDLE-WHEELS.

Specification forming part of Letters Patent No. 115,380, dated May 30, 1871.

I, JOSEPH M. STORY, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain Improved Mode of Driving Steamboat-Wheels, of which the following is a specification:

My invention relates to the manner of applying the power for driving steamboat-wheels; and consists in arranging two friction-wheels of equal diameters in sliding frames, which may be drawn together by a series of levers or screws, with a large friction-wheel on the shaft of the paddle-wheel and a smaller friction-wheel on the driving-shaft of the engine.

Figure 1 is an elevation of a steamboat-wheel, showing the application of my invention thereto. Fig. 2 is a plan of the same. Fig. 3 is a modification of the device for drawing together the sliding frames in which the friction-wheels of equal diameters are journaled.

A is the paddle-wheel, secured to the shaft B. A friction-wheel, C, having as large a diameter as practicable, is secured to the inner end of the paddle-wheel. Two small friction-wheels, D and E, are journaled in the sliding frames *a b*, respectively. They are in contact with the large friction-wheel C, and on the opposite side with the smaller friction-wheel F on the driving-shaft G. The sliding frames *a* and *b* are located in the vertical stationary frame *c*, which is secured to the floor of the boat. A shaft, H, journaled in each upright of the stationary frame *c*, carries eccentrics or double cranks *d d'* turned in opposite directions. They are connected, by means of pit-

men *e e*, with the inner ends of the sliding frames. *f* is a lever attached to the end of the shaft H outside of the frame *c*. In place of the above-described device for drawing together the moving frames, in which are located the small friction-wheels, a ratchet-bar, *g*, engaging the pinion *h* secured to the nut *i*, which has a right-and-left-hand thread within it to receive the screw-rods *k l*, imparts motion to the two frames.

Motion is imparted to the large friction-wheel C attached to paddle-wheel of the steamboat, or to the shaft thereof, by the two small friction-wheels D and E, which are rotated in the same direction by the friction-wheel F on the driving-shaft of the engine. The faces of these four wheels are kept in such close contact as to prevent slipping by means of a weighted lever, *f*, acting through eccentrics or cranks on the shaft H, and pitmen connected therewith on the sliding frames *a* and *b*, in which are journaled the two intermediate friction-wheels D and E, drawing them in between the driving and large friction wheels.

I claim as my invention—

The two intermediate friction-wheels E and D and the sliding frames *a* and *b*, when combined to operate substantially in the manner and for the purpose specified.

JOSEPH M. STORY.

Witnesses:

H. D. PECK,  
C. L. FISHER.