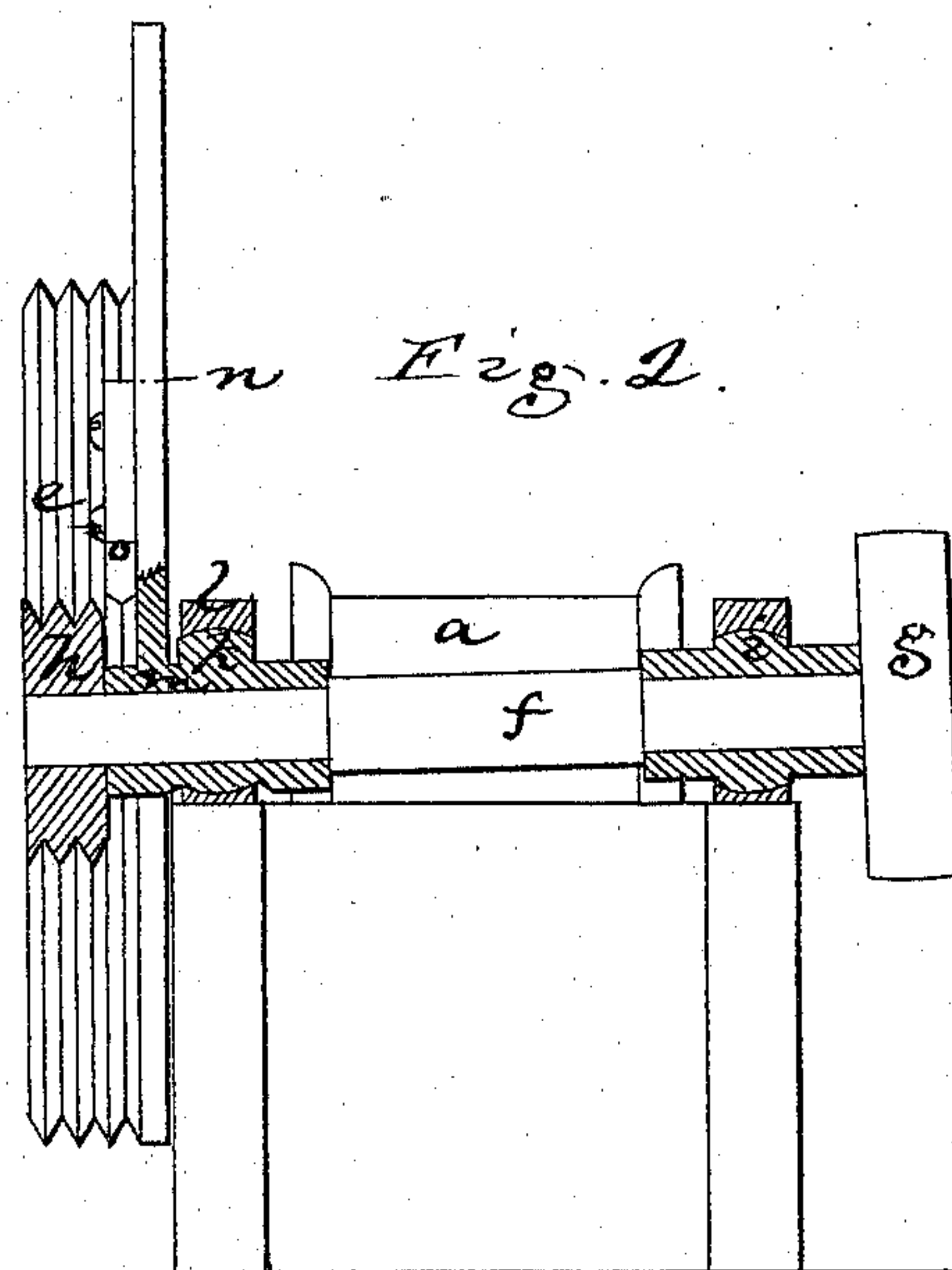
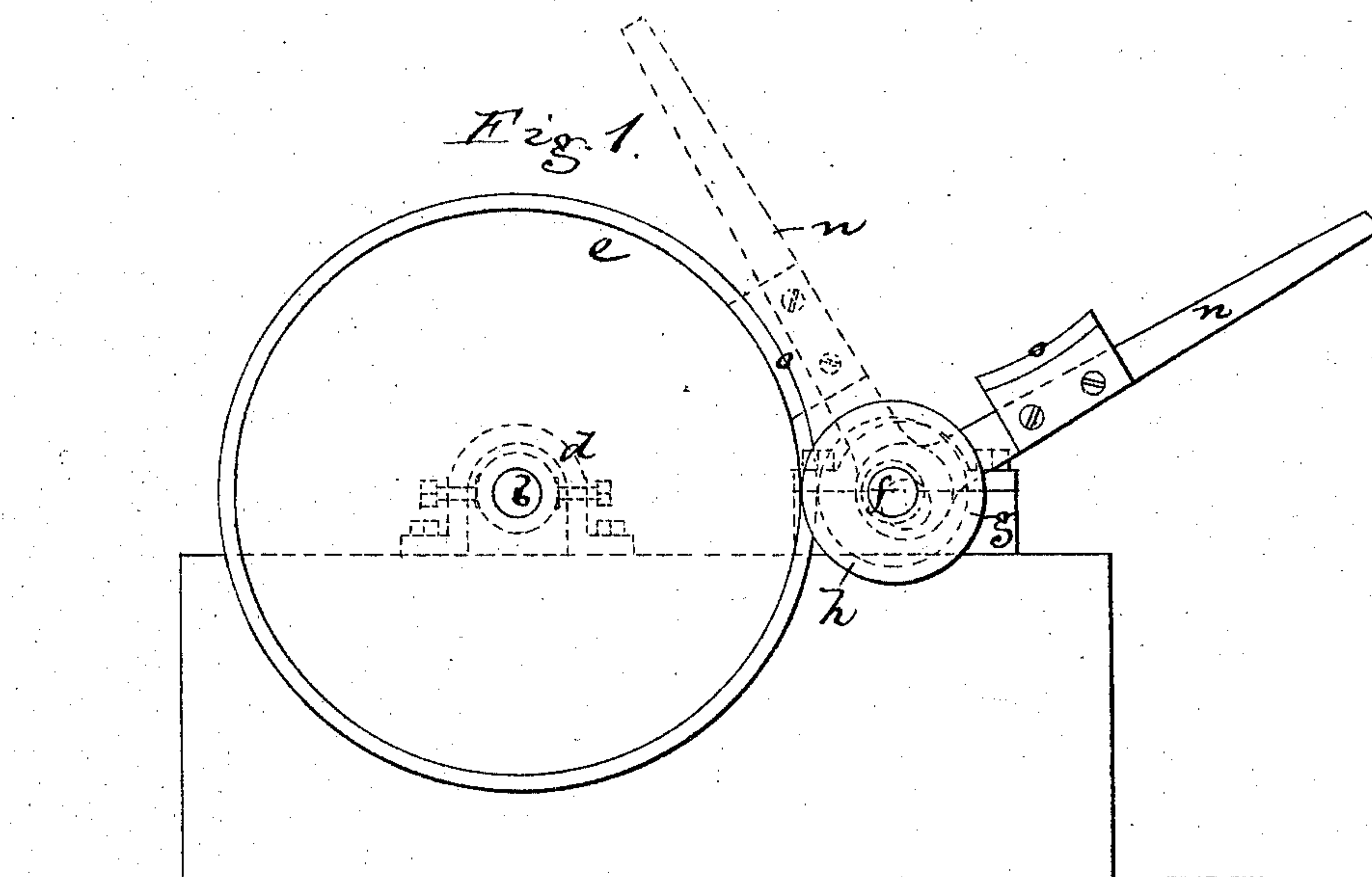


**C. H. HERSEY.**  
**Hoisting-Machines.**

No. 141,051.

Patented July 22, 1873.



*Witnesses.*  
*M. W. Nottingham.*  
*L. H. Atimer.*

*Inventor.*  
*Charles H. Hersey.*  
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*Crosby & Gould*

# UNITED STATES PATENT OFFICE.

CHARLES H. HERSEY, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN HOISTING-MACHINES.

Specification forming part of Letters Patent No. 141,051, dated July 22, 1873; application filed June 19, 1873.

*To all whom it may concern:*

Be it known that I, CHARLES H. HERSEY, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Hoisting-Machines; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

The invention relates particularly to that class of hoisting-machines in which the winding-drum shaft carries a friction-pulley driven by a friction-pulley on the driving or belt pulley shaft; and my improvement consists in journaling one end of the latter shaft in an eccentric mounted in a suitable bearing, so that by turning the eccentric the driving friction-pulley is thrown into or out of contact with the drum friction-pulley, and attaching to the eccentric a lever, to which is applied a friction-brake, movement of said lever operating both the brake and the friction driving-wheel, the movement that throws the brake into operation releasing the friction-driver, and the movement that releases said driver bringing the wheels into operative contact.

The drawing represents a hoisting mechanism embodying my invention.

Figure 1 shows the mechanism in side elevation. Fig. 2 is a sectional elevation through the driving-shaft.

*a* denotes the winding-drum, fixed upon a shaft, *b*, which is mounted and rotates in suitable journal-boxes *d*, said shaft having upon one end the friction-pulley *e*. *f* denotes the

driving-shaft. This shaft bears at one end the belt or driving pulley *g*, and at its opposite end the friction-pulley *h*. At one end the shaft *f* is journaled in a rocking bearing, *i*, and at its opposite end in an eccentric, *k*, said eccentric being mounted in a suitable bearing, *l*. To a hub, *m*, extending from the eccentric, is fixed the lever-arm *n*, and by means of this arm the engineer turns the eccentric to throw the friction-pulley *h* into or out of contact with the driving-shaft pulley. To this lever-arm is fixed a brake, *o*, having such relation to the eccentric (as before set forth) that the movement of the lever toward the wheel *e* applies the brake to the wheel, and throws the pulley *h* therefrom, as shown by the dotted lines in Fig. 1, while the movement of the lever in the opposite direction throws the brake from the wheel *e*, and brings the driving-pulley *h* into driving contact with said wheel, as seen by the full lines in said Fig. 1. Thus, by a single movement of the arm, the brake and driving-pulley are both operated.

I claim—

In combination with the drum-shaft friction-pulley *e*, the driving-pulley *g*, fixed upon a shaft extending through an eccentric, which eccentric is actuated by a lever-arm carrying a brake, the brake *o* and pulley *h* being simultaneously actuated by manipulation of the arm, substantially as described.

Executed this 24th day of May, A. D. 1873.

CHAS. H. HERSEY.

Witnesses:

FRANCIS GOULD,  
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