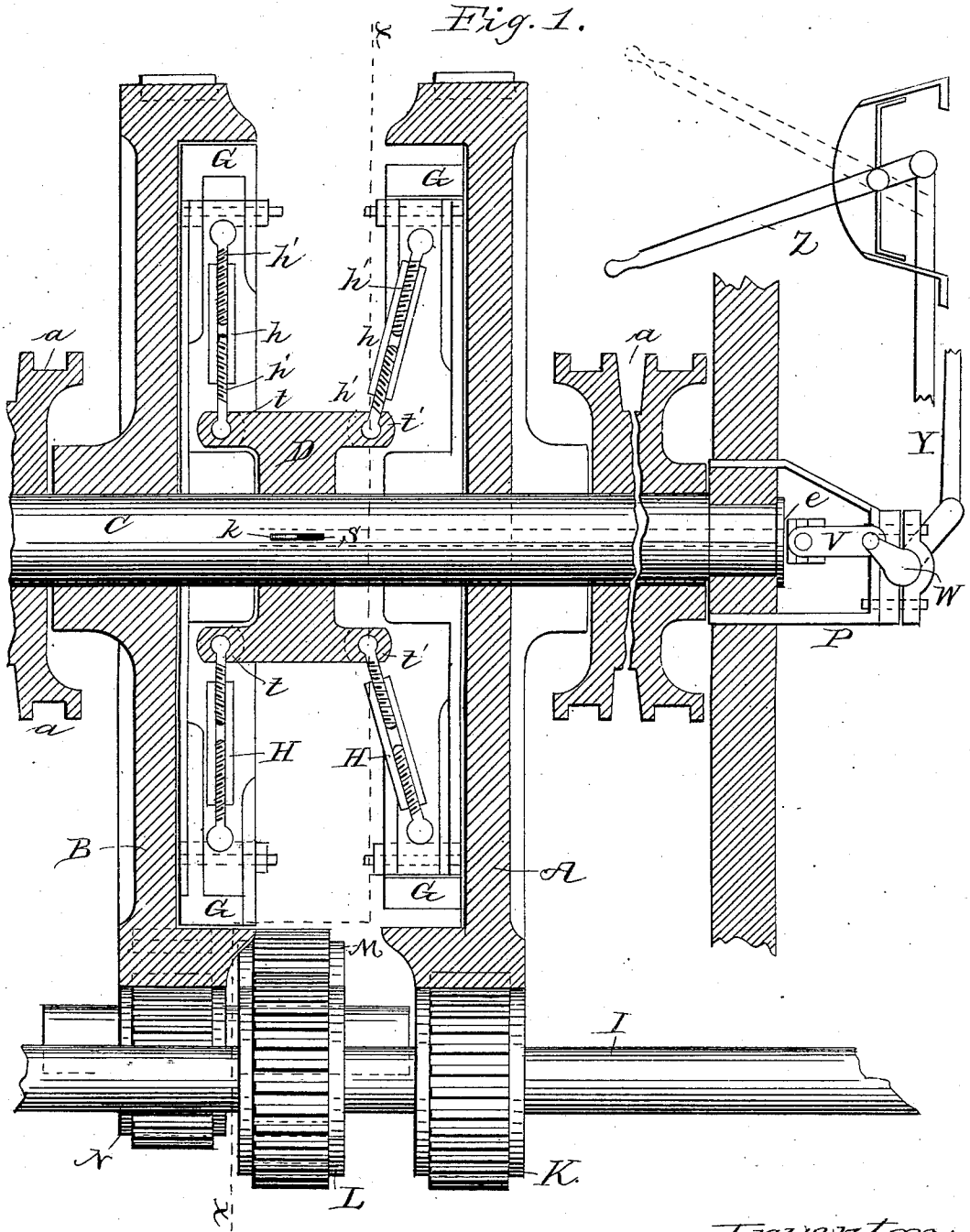
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J. THOMPSON.

TRAVELING CRANE, DERRICK, &c.

No. 272,988. Patented Feb. 27, 1883.

Fig. 1.



Attest:
S. Waller Fowler
Wm. A. Schoonmaker

Inventor:
John Thompson
by A. H. Evans & Co.
Attys.

N. PETERS, Photo-Lithographer, Washington, D. C.

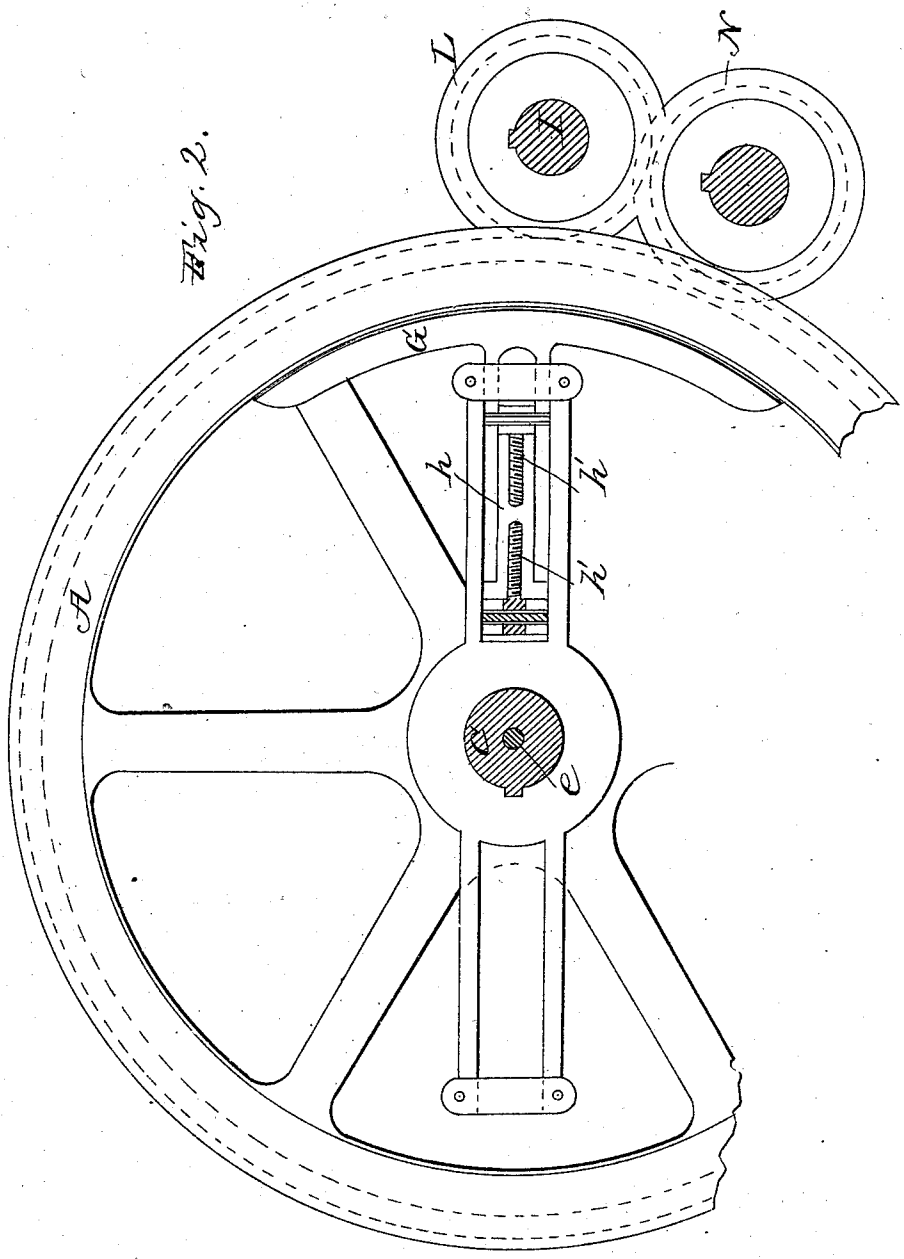
(No Model.) 2 Sheets—Sheet 2.

J. THOMPSON.

TRAVELING CRANE, DERRICK, &c.

No. 272,988. Patented Feb. 27, 1883.

Fig. 2.



Attest:
J. Walter Fowler
Wm. A. Schoenborn

Inventor
John Thompson
by A. N. Evans & Co
Atty

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOHN THOMPSON, OF BUCYRUS, OHIO, ASSIGNOR TO THE BUCYRUS FOUNDRY AND MANUFACTURING COMPANY, OF SAME PLACE.

TRAVELING CRANE, DERRICK, &c.

SPECIFICATION forming part of Letters Patent No. 272,988, dated February 27, 1883.

Application filed January 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN THOMPSON, of the city of Bucyrus, county of Crawford, and State of Ohio, have invented certain Improvements in Traveling Cranes, Derricks, and Similar Devices; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of the specification, in which—

Figure 1 is a horizontal sectional view of the lateral swinging mechanism of a traveling crane or similar device. Fig. 2 is a vertical section on the line *x x* of Fig. 1.

My invention relates to means for operating the chain-drums of traveling cranes, and has for its object to facilitate the handling of such machinery.

My invention consists of the details of construction of a friction-clutch mechanism and operating parts, as hereinafter fully described, and specifically set out in the claims.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, I is the driving-shaft, to which the power is applied, and on it are keyed pinions K L, the pinion K meshing directly with wheel A and pinion L meshing with intermediate pinions M N, which engage wheel B. By this gearing, when wheel A is revolved in one direction wheel B revolves in the opposite direction, and vice versa. The wheels A B are loose upon shaft C, to which are keyed the chain-drums *a a*, which swing the crane-boom in their rotation. Between wheels A B, around shaft C, is a collar, D, having four projecting arms, *t t' t'*, which operate through turn-buckles *h* H, whose screws *h' h'* connect with arms *t t'* and sliding friction-shoes G G by means of pin or ball-joints, for a purpose hereinafter described. The shaft C is centrally bored from its end down to a point between wheels A B, where a slot, *s*, (shown in Fig. 1,) is cut to the circumference. Within the central bore of shaft C is placed a rod, *e*, the inner end of which is secured to collar D by a key, *k*, so that a reciprocation of rod *e* will move collar D back and forth on the shaft within the limits of the slot *s*. A yoke, P, at the end of shaft C supports a crank, W, which is connected to the outer end of rod *e* by a link, V, and the other arm of the crank, by means of connecting-rod Y, is connected to a lever, Z, having a toothed rack properly and conveniently located on the platform, whereby the operator can reciprocate rod *e* back and forth and change the position of collar D in relation to wheels A B. As collar D is forced toward wheel B the arms *t t'* move the turn-buckles *h* H toward the face of the wheel D, and, moving as they do on their pin or ball-joints, they force outward the friction-shoes G G, whose curved faces, coming in contact with the interior surface of the rim of wheel D, clutch it to shaft C, so that the power through pinions L M N rotates the shaft and chain-drums in one direction. By reversing the movement of rod *e* the clutches seize wheel A in a similar manner, and pinion K and wheel A rotate shaft C in the opposite direction.

The faces of the clutch-shoes G G may be covered with vulcanized fiber or any other desirable material.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a traveling crane or derrick, the power-shaft I, pinions K L M N, shaft C, and loose wheels A B, in combination with collar D, provided with arms *t t'*, turn-buckles *h* H, and sliding friction-shoes G G, all constructed, arranged, and operated as set forth.

2. The loose wheels A B, central hub or collar, D, provided with a friction clutching device in combination with the hollow slotted shaft C, rod *e*, and operating crank and lever, substantially as specified.

JOHN THOMPSON.

Witnesses:
FRANKN. ADAMS,
W. B. CRITTENDEN.