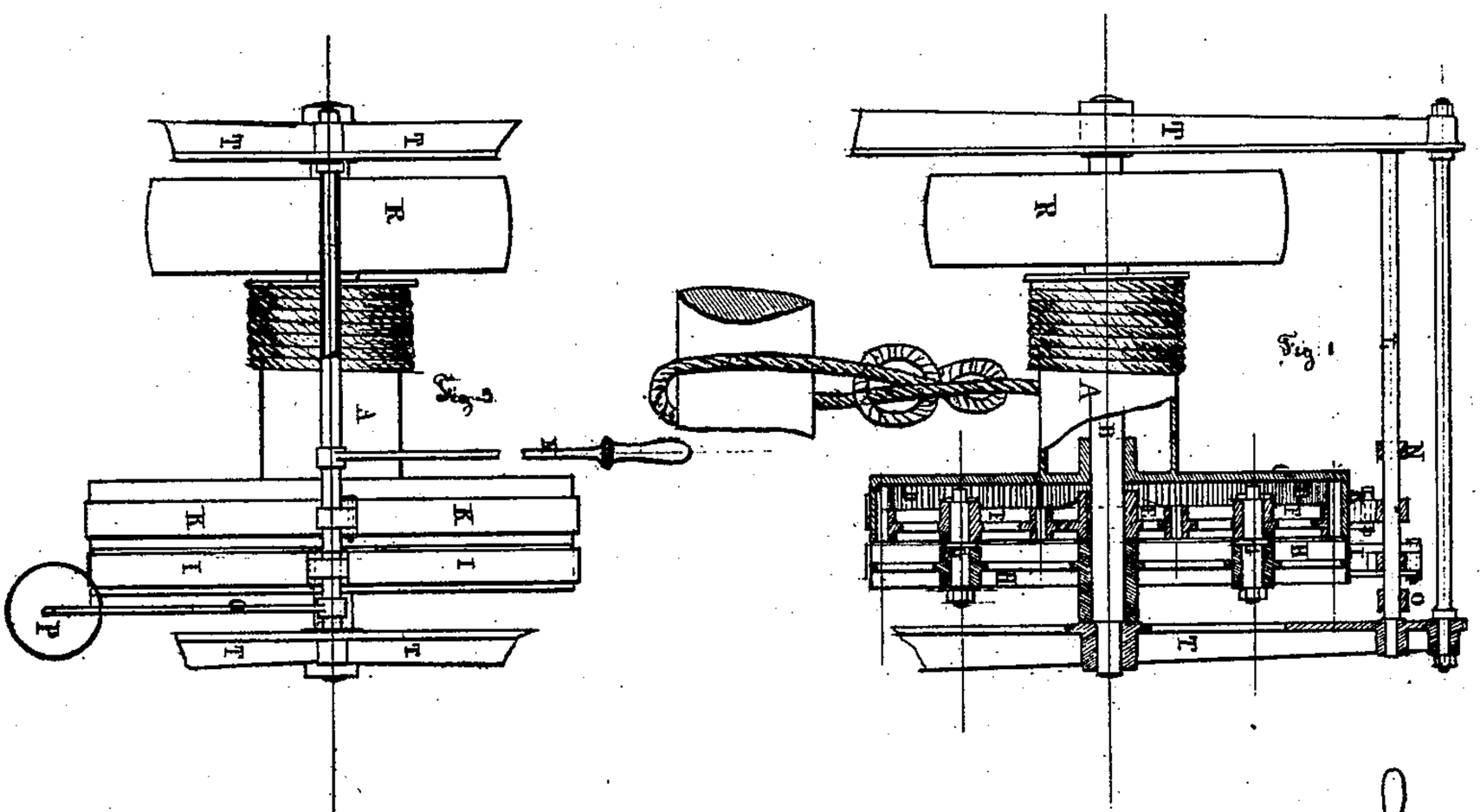
W. Eppelsheimer,

Elevator.

No. 95,448. Patented Oct. 5. 1869.



Inventor: William Eppelsheimer

Witnesses: George Pardy

Edward Paff

United States Patent Office.

WILLIAM EPPELSHEIMER, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO HIMSELF AND EDWARD TRAPP, OF SAME PLACE.

Letters Patent No. 95,448, *dated October* 5, 1869.

IMPROVEMENT IN HOISTING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, WILLIAM EPPELSHEIMER, of the city and county of San Francisco, and State of California, have invented a certain new and improved Hoisting-Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a front view, in part section;

Figure 2 is an end view; and

Figure 3 is a plan of my device.

This invention relates to a new mode of constructing hoisting-machines, whereby greater facility in operating is obtained.

To enable others skilled in the art to make and use my invention, I will proceed to describe it, as follows:

Referring to fig. 1 in the drawing, A represents the reel, or hoisting-drum, which is made to revolve loosely on the shaft B.

On the outside of the flange C of this reel will be an internal spur gear-wheel D, which may either be of one piece with the reel, or it may be bolted thereto, as convenience may suggest.

On the shaft B, in line with the internal gear D, will be the driving-pinion E, which will be firmly secured on this shaft, in any ordinary mechanical way.

There will be two or more "counter-pinions," F F, gearing between the driving-pinion E and the internal gear-wheel of the hoisting-reel.

These counter-pinions will revolve loosely on studs G G, which project from and are secured in the disk, or brake-wheel H. This brake-wheel will revolve loosely on the shaft B, and will have its outer circumference turned to accommodate the brake-band I, or its equivalent.

The outer circumference of the internal gear-wheel D will also be made to accommodate a brake-band K, or its equivalent.

There will be set at some convenient point, and running parallel with the shaft B, a brake-shaft L, or it may be that two shafts may be used, one for each brake.

These brake-shafts will have provided on them the small cranks M, to which the ends of the brake-bands will be attached.

The brake-shaft will be operated by the lever N, and another lever O (or it may be a continuation of the lever N) will be provided, on the end of which the counter-weight P will be secured.

The shaft B may be revolved by any suitable means. In the drawing, I show a driving-pulley, R, which will be secured to the shaft in position, as shown. A belt from this pulley will connect with the motive-power.

A suitable frame-work, T, of either wood or iron, will be provided, to support and connect the different parts together.

The operation of the apparatus, which is convenient and simple, is as follows:

When it is desired to operate in hoisting, the lever N is pressed down, and the brake-band I, being tightened on the brake-wheel H, at the same time the brake-band K is slackened, and freed from the reel brake-wheel. The hoisting-shaft B is now revolved by the application of the motive-power, and the reel will be revolved by the system of gearing.

When it is desired to cease hoisting, the pressure is released from the lever N, when the counter-weight P, coming into action, will fall, and reverse the brakes, slackening the brake-band I, and tightening the brake-band K. Now, because the axes of the counter-pinions are not rigidly held, but are permitted to revolve around the driving-pinion E, these counter-pinions will be inoperative, and, instead of serving to transmit motion to the reel, will themselves follow loosely around the internal gear-wheel.

Again, when it is desired to lower or unwind the reel, the brake-lever N is brought to a middle position, as shown in fig. 2. In this position both brakes will be "off," and the reel will be permitted to unwind.

During all of the different operations, the reel-shaft B may be continuously revolving, as it can operate independently of the reel, or in connection therewith, accordingly as the brakes are set.

I do not confine myself to use the particular style of brake herein specified, for other brakes of common construction may be applied.

What I claim as my invention, and desire to secure by Letters Patent, is—

The system of gearing, as shown, in combination with the brakes and brake-wheels, and the shafts and levers connected therewith, for the purpose of operating a hoisting-reel.

WILLIAM EPPELSHEIMER.

Witnesses:

GEORGE PARDY,

EDWARD A. TRAPP.