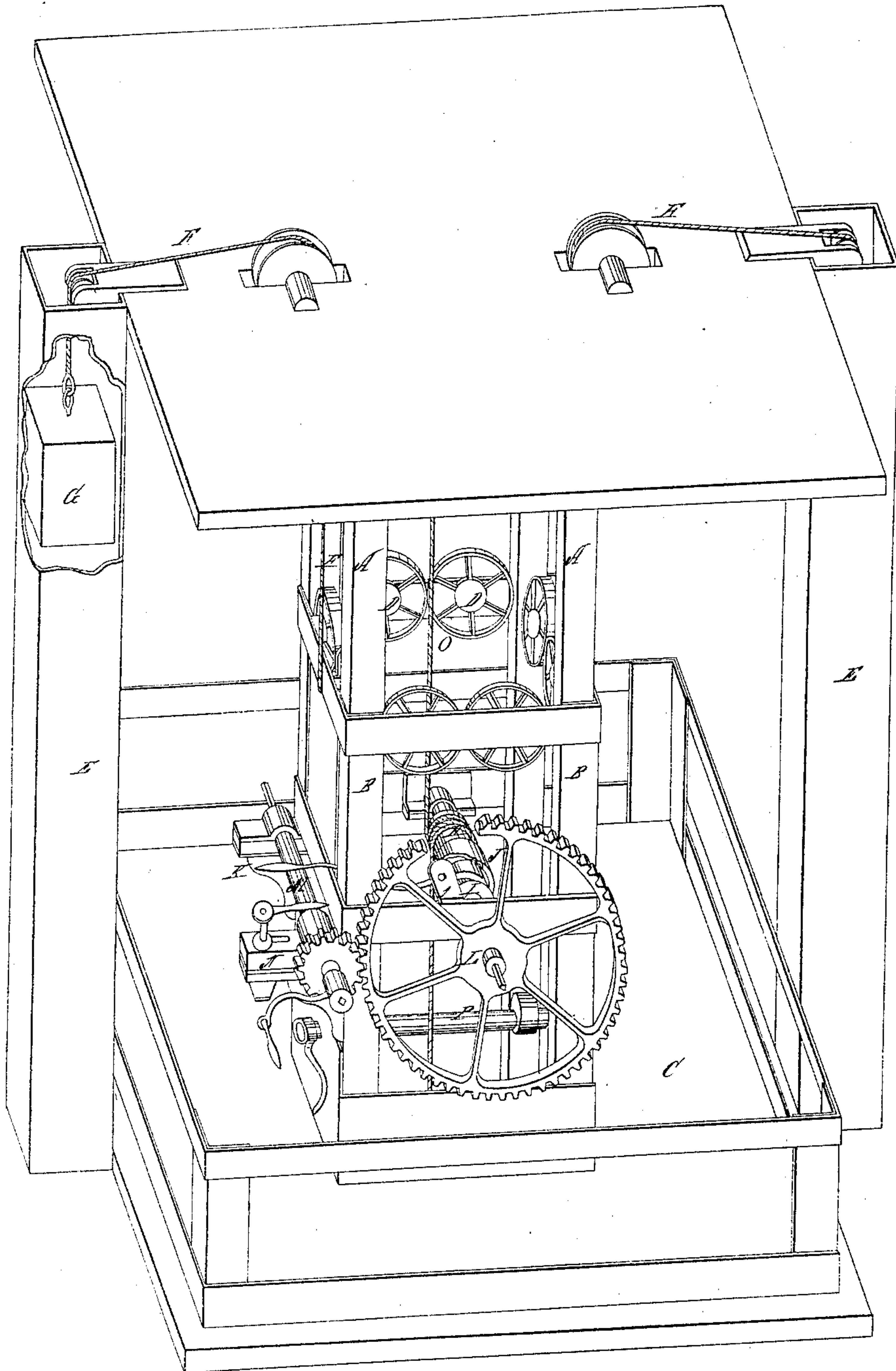


G. Thompson,
Elevator.

N^o 20,455.

Patented June 1, 1858.



Witnesses:

John B. Smith
John R. Brown

Inventor:

George Thompson

UNITED STATES PATENT OFFICE.

GEO. THOMPSON, OF CINCINNATI, OHIO.

MACHINERY FOR HOISTING AND LOWERING GOODS, &c.

Specification of Letters Patent No. 20,455, dated June 1, 1858.

To all whom it may concern:

Be it known that I, GEORGE THOMPSON, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Hoisting-Machines for the Purpose of Hoisting and Lowering Goods, &c.; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same.

The drawing is in perspective, with parts represented torn away to show the whole at one view.

A—A— are posts or boxes running from floor to ceiling, or such height as may be deemed necessary to suit the occasion.

B— is a traveling frame encircling the uprights A—A— made of any suitable material to support the machinery.

C— is a platform surrounded by railing, seats, shelves, or balusters; for the purpose of containing the operator, goods, &c.

D—D— are rollers or pulleys placed between the posts A—A— fastened to the top and bottom of the frame B— so as to avoid friction should the load be unequally distributed on the platform C—.

E—E— are hollow boxes placed at the sides of the machine, or against the wall if in a building for the purpose of hiding from view the counterbalance weights. The posts A—A— when made hollow may contain these weights.

F— is a rope passing over a sheave wheel at the top, suspending the machine at one end and counterbalance weight at the other end.

G— is a counterbalance weight.

H— is a windlass, supported by, and travels with the machine.

I— is a friction pulley made a little tapering on the outside and plays loose on the shaft of the windlass.

J— is a socket or female pulley, tapering on the inside so as to admit the friction pulley I— and is made fast to the shaft of the windlass.

H— is a lever whose fulcrum is at Figure 1, one end grasps the friction pulley I— the other end is handled by the operator.

L— is a large cog wheel fastened to the shaft of the windlass.

M— is a shaft with a small cog wheel, or pinion, keyed to it, is suitable for a crank at each end, each end of the windlass shaft is also suited for a crank of the same size, so

that the crank may be shifted from one shaft to the other, one or more cranks may be used at the same time.

N— is a box or pillow block fitted to the pinion shaft M— and is so constructed with a cam or eccentric, shaft, and handle, that by turning the handle, causes the pinion to be thrown in or out of gear, in other words separates the two cog wheels. Another pillow-block is situated toward the other end of the pinion shaft M— and swings on a pivot.

O— is a rope or chain which is turned one or more times around the windlass H— one end fastened to the floor, the other end to the ceiling. This rope supports such weight as is put on the machine to be conveyed up or down.

P— is a shaft with an eccentric, or cam fastened near each end so as to form a brake against the sides of the posts A—A—. A lever is fastened to the end of this shaft and is handled by the operator. This brake is used to stop the machine from coming down too rapid in case the rope O—, should happen to break. By this means there is no risk of life or goods.

The use of this machine.—As this machine is principally designed for wholesale stores, I will endeavor to show its use for conveying dry goods from story to story. Suppose a bill of goods be sold in the fifth story, several times the amount a man can carry at one load on his back, also a sale has been made at the fourth, third, and second stories. The machine is now at the first floor, a man steps on the platform, if the pinion be in gear, he moves it out, places the crank on the end of the windlass shaft, which in this case is used as a driver, he applies power sufficient to overcome the friction of the windlass, as the machine is supposed to be balanced including the weight of a man, he moves up five or six times the rate that a man could pass up by steps, until he reaches the fifth floor, he then applies the friction pulley I—, by means of the lever H—, so as to hold the machine while the load is being placed on the platform or shelves, he now gets on releases the friction pulley just enough to come down at such speed as he desires until he reaches the fourth floor, where he performs as when at the fifth, and so on until he arrives at the first floor, thereby saving time and labor. Again supposing some goods be on the first floor to be carried

above, they are placed on the platform, and if the load is too heavy to be hoisted with the crank on the main shaft, (or windlass shaft if so chosen to be called) the pinion is brought in gear, the crank placed on the pinion shaft which now becomes a driver capable of hoisting a very heavy weight. This machine is convenient for persons wishing to go up or down stairs.

10 *Advantages set forth.*—The advantage this machine has over those constructed with racks and pinion, is, that no noise is made which would greatly annoy the inmates and customers. Also that less power is required
15 to operate the machine, and is also provided

with means of safety in case of breakage in the machinery.

What I claim as my invention and desire to secure by Letters Patent is as follows:

1. The use of the windlass H— one or 20 more, whether parallel or tapered, corrugated or grooved, in combination with the traveling frame for the purpose set forth.

2. I claim the use of the brake P— or its equivalent, for the purpose substantially de- 25 scribed.

GEORGE THOMPSON.

Witnesses:

JOHN B. HEICH,

JOHN RUTHVEN.