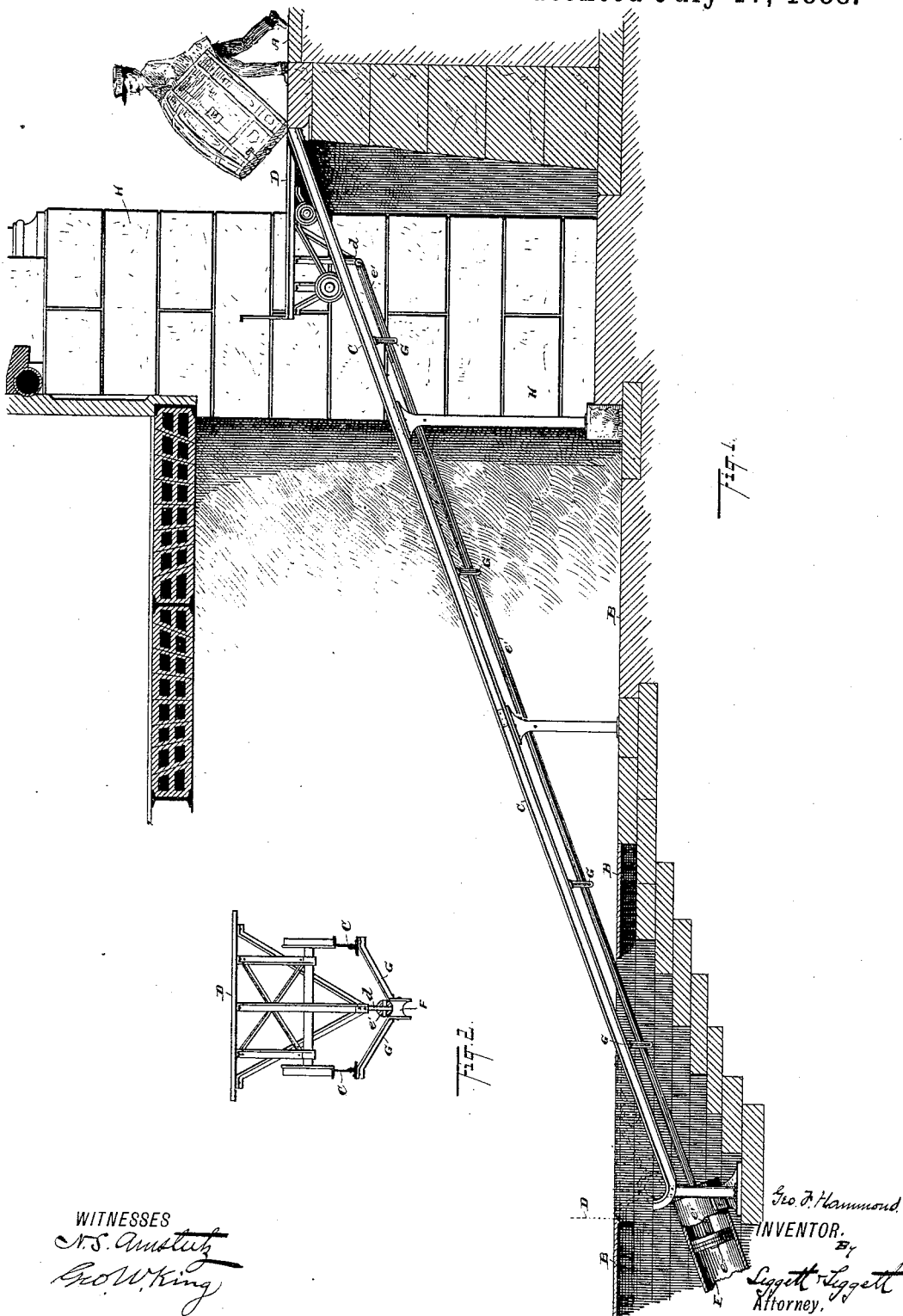


(No Model.)

G. F. HAMMOND.
HOISTING AND CONVEYING APPARATUS.

No. 386,430.

Patented July 17, 1888.



UNITED STATES PATENT OFFICE.

GEORGE F. HAMMOND, OF CLEVELAND, OHIO.

HOISTING AND CONVEYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 386,430, dated July 17, 1888.

Application filed November 4, 1887. Serial No. 254,317. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. HAMMOND, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Hoisting and Conveying Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to improvements in hoisting and conveying apparatus designed more especially for conveying freight, baggage, &c., for instance, from basement to sidewalk, and vice versa, in which a car operating on an inclined track is actuated directly from the piston-rod of an inclined water-cylinder, to the end that a cheap, simple, and convenient apparatus is had for the purpose aforesaid.

With these objects in view my invention consists in certain features of construction and in combination of parts, hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation partly in section. Fig. 2 is an end view of the car.

A represents the line of the sidewalk, and B the basement-floor.

C is an inclined track leading from the sidewalk, preferably to a point so far below the basement floor that the platform of car D will be approximately flush with the basement-floor when the car is at its lower terminus.

E is a water cylinder set in a pit below the floor and in the inclined position shown, the axial line of the cylinder being parallel to the line of the track. The cylinder is provided with piston *e* and piston-rod *e'*, the latter connecting, preferably, with the depending arm *d* of the car. The cylinder is provided with

suitable valve mechanism (not shown) of ordinary construction for discharging water to and from the cylinder. At suitable intervals hangers G may be suspended from the track, said hangers carrying rollers F for supporting the piston-rod in case the latter be of extreme length. The cylinder and piston-rod are of course long enough to accommodate the travel of the car. The space between piers H and underneath the track may be closed, and this space above the track may be provided with doors to accommodate the passage of the car, so that baggage or freight is at once carried under cover, a matter of no small importance, especially in stormy or freezing weather.

What I claim is—

1. The combination, with inclined track and car adapted for traveling thereon, of a water-cylinder, the piston-rod of the latter being connected with the car, substantially as set forth.

2. The combination, with inclined track, car, water cylinder and piston-rod, substantially as indicated, of hangers supported from the track, said hangers carrying rollers for supporting the piston-rod, substantially as set forth.

3. The combination, with inclined track extending from the sidewalk to below the basement-floor and a car for operating on the track, of a water-cylinder having its axial line parallel with the line of the track, the piston of such water-cylinder connected with the car for actuating the latter, substantially as set forth.

Testimony whereof I sign this specification, in the presence of two witnesses, this 10th day September, 1887.

GEORGE F. HAMMOND.

Witnesses:

CHAS. H. DORER,
ALBERT E. LYNCH.