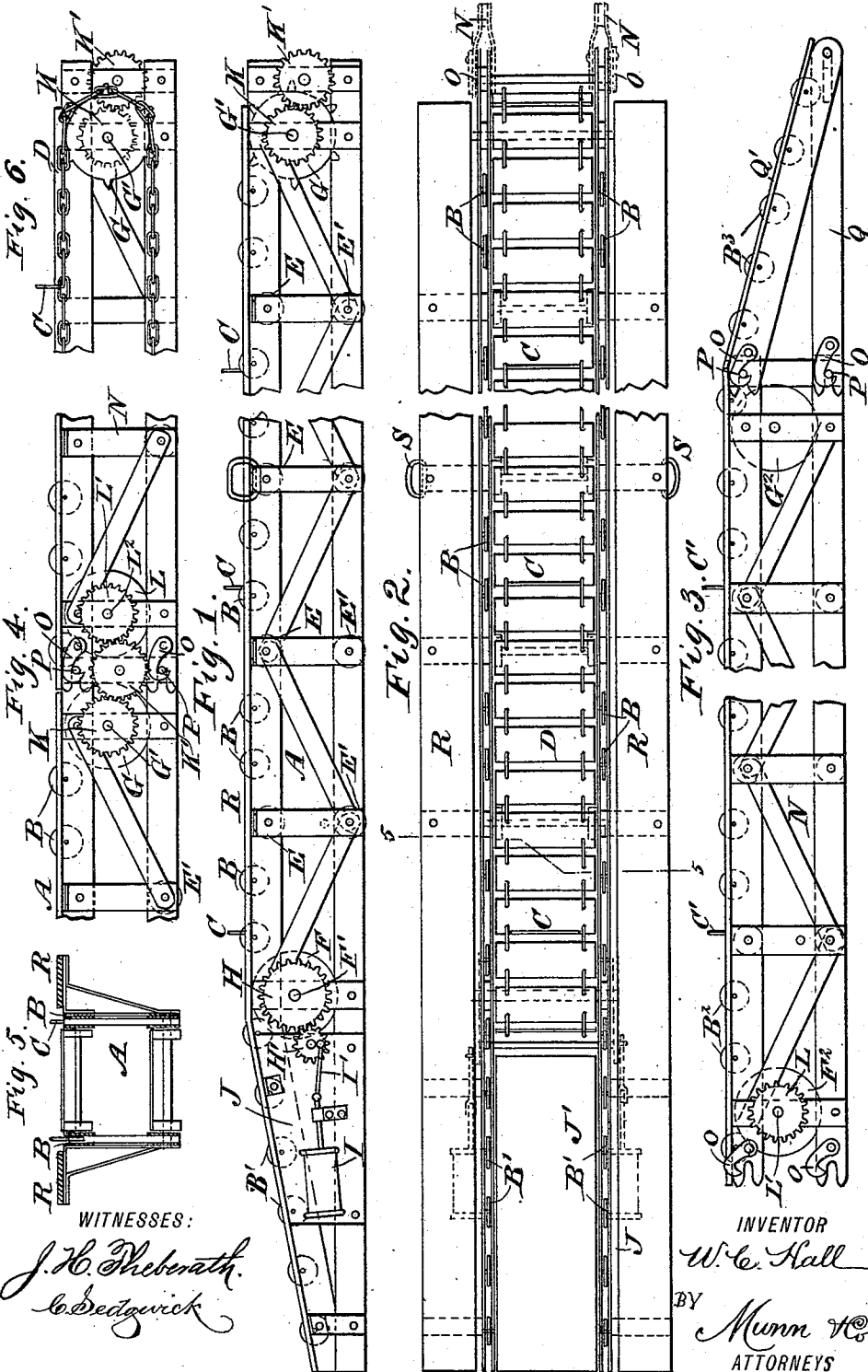


(No Model.)

W. C. HALL.
CARRIER.

No. 469,137.

Patented Feb. 16, 1892.



UNITED STATES PATENT OFFICE.

WILLIAM C. HALL, OF PINE BLUFF, ARKANSAS.

CARRIER.

SPECIFICATION forming part of Letters Patent No. 469,137, dated February 16, 1892.

Application filed May 7, 1891. Serial No. 391,875. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. HALL, of Pine Bluff, in the county of Jefferson and State of Arkansas, have invented a new and Improved Carrier, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved carrier which is simple and durable in construction, very effective in operation, and more especially designed for transporting merchandise to and from warehouses or for loading and unloading boats, railroad-cars, drays, &c.

The invention consists of certain parts and details and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement. Fig. 2 is a plan view of the same. Fig. 3 is a side elevation of an extension-frame. Fig. 4 is a side elevation of the joint between the main and extension frames. Fig. 5 is a transverse section of the improvement on the line 5 5 of Fig. 2, and Fig. 6 is a side elevation of the carrier-belt in the frame.

The improved carrier is provided with a suitably-constructed frame A, in the top of which are journaled two parallel rows of friction-rollers B, extending with their upper ends slightly above the top of the frame A and adapted to support the load to be moved from one place to another. The load is adapted to be engaged by arms or plates C, extending at right angles from a carrier-belt D of any approved construction and mounted to travel in the frame A. The upper part of the endless carrier-belt D is supported on friction-rollers E, journaled in the frame A, the lower part of the said endless carrier-belt being similarly supported on like friction-rollers E'. The endless carrier-belt D passes at one end over a sprocket-wheel F, journaled near the front end of the frame A, and the said belt also passes over a like sprocket-wheel G on a shaft G', journaled in the rear end of the frame A.

On the shaft F' of the sprocket-wheel F is

secured a gear-wheel H in mesh with a pinion H', carrying on one face a wrist-pin pivotally connected with a pitman I' of an engine I of any approved construction and secured to one side of the inclined end J of the frame A. The inclined end J, instead of being provided with an endless carrier-belt, is formed with a rigid top J', as plainly shown in Fig. 2, and also with rows of friction-rollers B', extending above the top and arranged in line with the rows of friction-rollers B, previously mentioned.

The load to be carried forward is moved up by hand on the friction-rollers B' to finally pass to the top of the frame A upon the friction-rollers B. The load is then moved forward on the frame A by means of the arms or plates C, as previously described, and then the carrier-belt D is set in motion by operating the engine I.

In order to make the carrier of any described length, one or more additional frames N, with sets of friction-rollers B², and an endless carrier-belt having arms or plates C' are provided, as plainly shown in Figs. 3 and 4. The endless carrier-belt of the extension-frame is actuated from the sprocket-wheel G of the preceding carrier-belt D, and for this purpose the shaft G' of the said sprocket-wheel G is provided with a gear-wheel K, meshing in an intermediate gear-wheel K', journaled on a suitable stud held on the main frame A. The intermediate gear-wheel K' meshes into a gear-wheel L, secured on a shaft L', journaled in one end of the frame N and carrying a sprocket-wheel F², similar to the sprocket-wheel F. The endless carrier-belt of the extension-frame passes over this sprocket-wheel F² and also over a sprocket-wheel G², journaled in the rear end of the extension-frame N. In a like manner the next following extension-frame is coupled to the carrier-belt of the previous extension-frame, so that the several carrier-belts are set in motion simultaneously when the engine I is set in motion.

In order to fasten the several frames together, hooks O are provided, pivoted on one frame, adapted to engage pins P on the adjacent frame, as plainly shown in Figs. 3 and 4. The last extension-frame in the row is connected with an inclined frame Q, similar in

construction to the inclined frame J of the main frame A. This inclined frame Q is connected by hooks O to pins P held on the rear end of the last extension-frame. (See Fig. 3.)

5 The inclined frame Q is provided with a slotted top Q', similar to the top J', and also with rows of friction-rollers B³, arranged in line with the rows of friction-rollers of the extension-frames and the main frame A. On each
10 side and near the top of the main frames and extension-frames, as well as the ends J and Q, are held platforms R, extending lengthwise and supported by suitable brackets on the respective frames A N and the respective
15 ends J and Q.

In order to conveniently move the frames and extension-frames about, rings S are secured to the brackets supporting the platforms, the said rings to be taken hold of by
20 the operators to lift and carry the frames from one place to another. It will be seen that the weight of the load is principally taken up by the friction-rollers B, the endless carrier-belts only moving the load forward over the said
25 friction-rollers with their arms.

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

1. In a carrier, the combination, with a frame
30 provided with rows of friction-rollers adapted to support the load to be moved, of an endless carrier-belt mounted to travel in the said frame between the rows of rollers, and arms

or plates projecting from the said carrier-belt and adapted to engage the load, so as to move
35 the latter forward over the said friction-rollers, an extension or auxiliary frame adapted to be jointed to one end of the said main frame and also provided with rows of friction-rollers, a carrier-belt, and arms on the said
40 carrier-belt, and means, substantially as described, for imparting a traveling motion to the carrier-belt of the extension-frame from the carrier-belt of the main frame, substantially as shown and described.

2. In a carrier, the combination, with a frame
45 provided with rows of friction-rollers adapted to support the load to be moved, of an endless carrier-belt mounted to travel in the said frame between the rows of rollers, and arms
50 or plates projecting from the said carrier-belt and adapted to engage the load, so as to move the latter forward over the said friction-rollers, an extension or auxiliary frame adapted
55 to be jointed to one end of the said main frame and also provided with rows of friction-rollers, a carrier-belt, and arms on the said carrier-belt, and an inclined frame adapted to be fastened to the outer end of the extension-frame and also provided with rows of
60 friction-rollers, substantially as shown and described.

WILLIAM C. HALL.

Witnesses:

W. H. MATTHEWS,
N. T. ROBERTS.