

P. GIFFHORN.
No. 123,391.

Improvement in Elevators.
Patented Feb. 6, 1872.

Fig. 1.

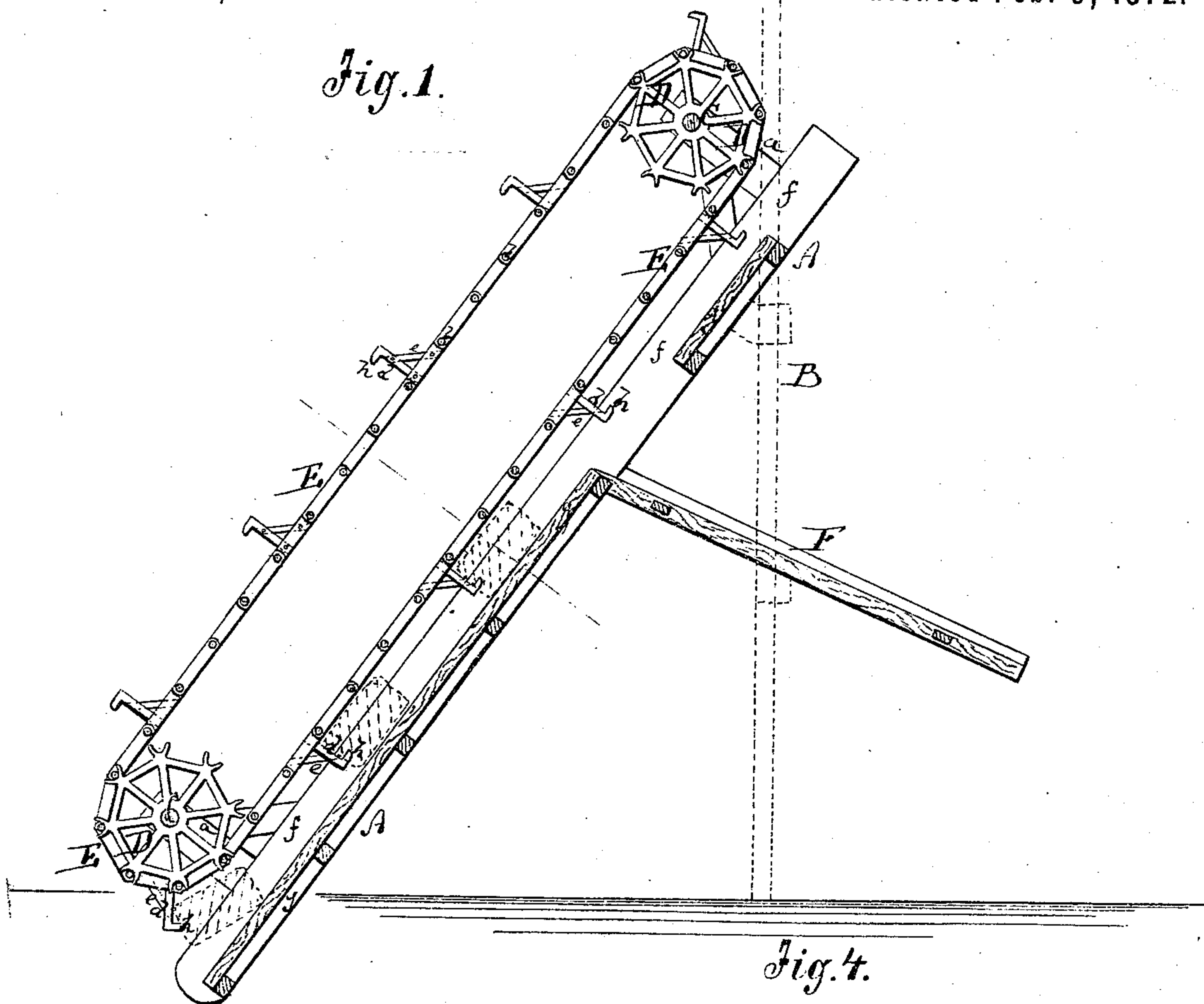


Fig. 4.

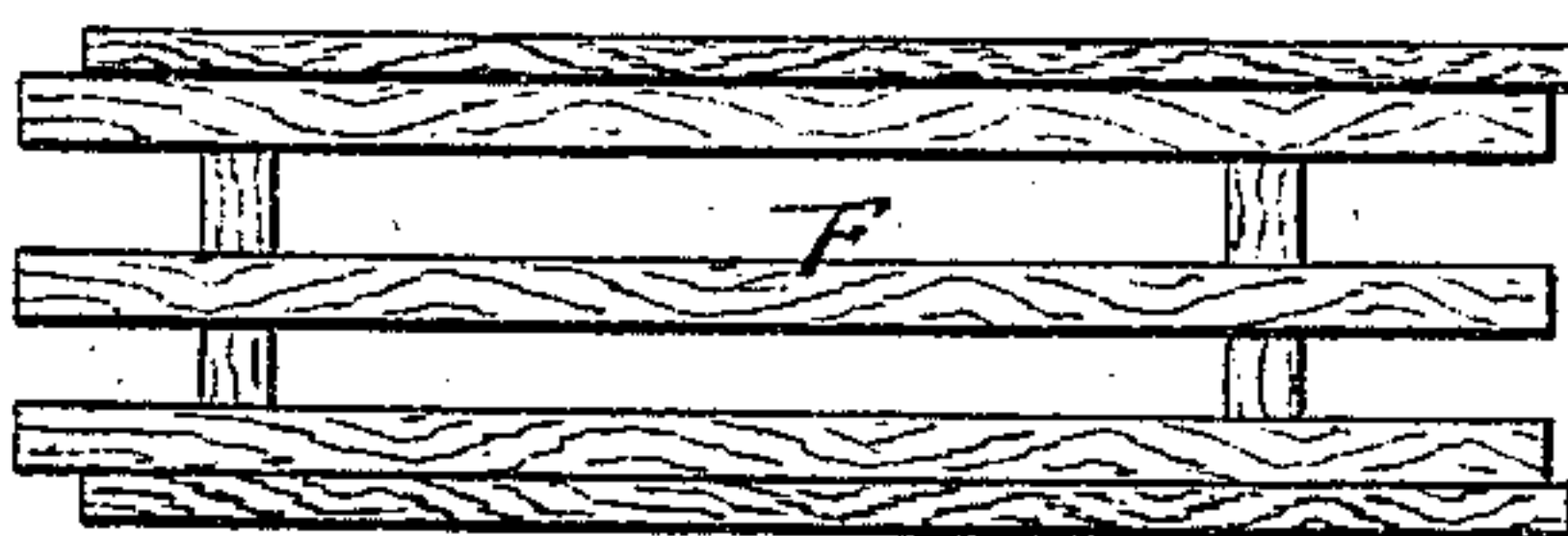


Fig. 2.

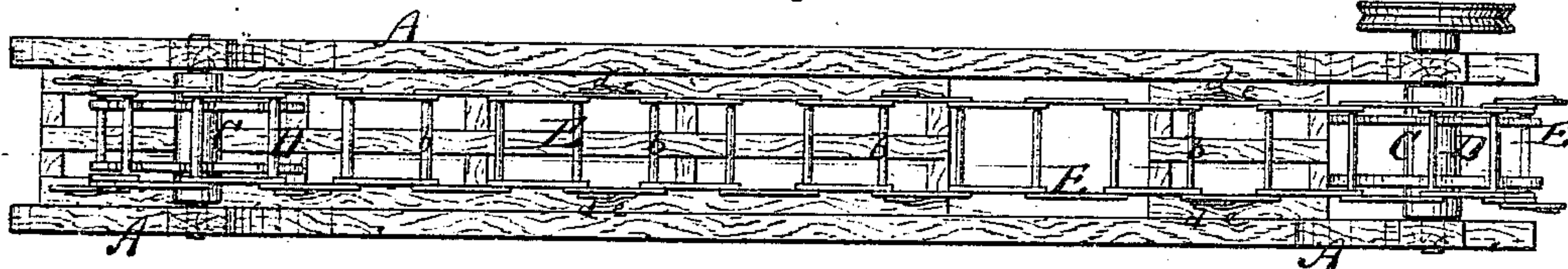
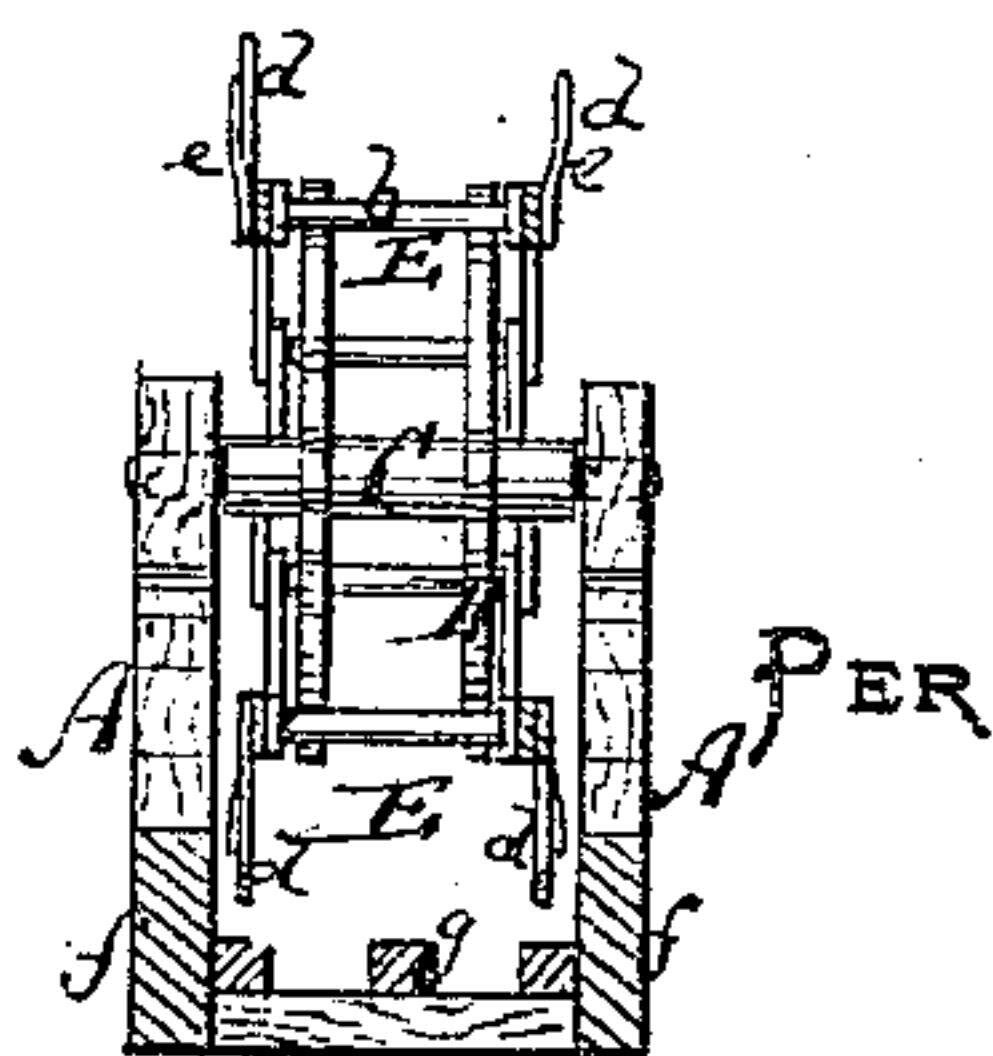


Fig. 3.



Witnesses:

A Bennekenhof.
Geo. W. Mabee

Inventor:

P. Giffhorn

Munn & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

PAUL GIFFHORN, OF AKRON, OHIO.

IMPROVEMENT IN ELEVATORS.

Specification forming part of Letters Patent No. 123,391, dated February 6, 1872.

Specification describing a new and Improved Ice-Elevator, invented by PAUL GIFFHORN, of Akron, in the county of Summit and State of Ohio.

Figure 1 represents a side elevation, partly in section, of my improved ice-elevator. Fig. 2 is a plan or front view of the same. Fig. 3 is a transverse section of the same. Fig. 4 is a top view of the chute.

Similar letters of reference indicate corresponding parts.

This invention relates to a new endless ice-elevator for conveying ice from barges or sleds to sheds or ice-houses; and consists of an endless double chain, provided with braced projections, and arranged on an inclined frame, which has a chute or guide at suitable elevation.

A in the drawing represents a frame, made of wood or other suitable material, placed in an inclined position against the shed or house B, into which the ice is to be elevated. In posts *a a*, which project from the frame A, are the bearings of two transverse shafts, C C, one near the upper and one near the lower end of said frame. These shafts carry each one pair of wheels or drums, D D. E is an endless chain placed around the two drums D D, so that it is thus in its two lengths parallel with and above the frame A, as shown. The chain is preferably double, its two strands being connected by transverse rods *b b*, the drums D D being also double or otherwise sufficiently long to receive and hold such double chain. The frame A consists of two slide-bars, *f f*, which are preferably connected and braced, and of

a bottom, *g*, between these side bars, said bottom being somewhat lower than the upper edge of the side bars *f*, so that the latter constitute projecting ledges, as in Fig. 3. The arms *d* of the chain E are of such length that they just clear the bottom of the frame A. F is a chute or inclined frame placed against the back of the frame A, and leading into the building B, where the ice is to be discharged. The bottom of the frame A has an aperture directly above the chute F large enough for the ice to pass through. The chain, when revolved by power applied to one of the shafts C, (for which purpose see the pulley *i*,) will, with its arm *d*, sweep the ground or space directly in front of the frame A, and carry away therefrom pieces of ice that may be in position to be reached. The hooked-shaped ends of the arms *d* will hold the ice and cause it to be carried up along the bottom of the frame A until the aperture is reached, through which the ice falls upon the inclined chute F, sliding to the end of same, and then dropping to the proper place.

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

The combination, with drums and double chains, having the lugged and braced hooks *d e h*, of the inclined channel, formed of side bars *f f* and bottom *g*, when all are constructed and applied in a frame, A, as and for the purpose described.

PAUL GIFFHORN.

Witnesses:

MILFORD TERRASS,
GEO. HERMAN.