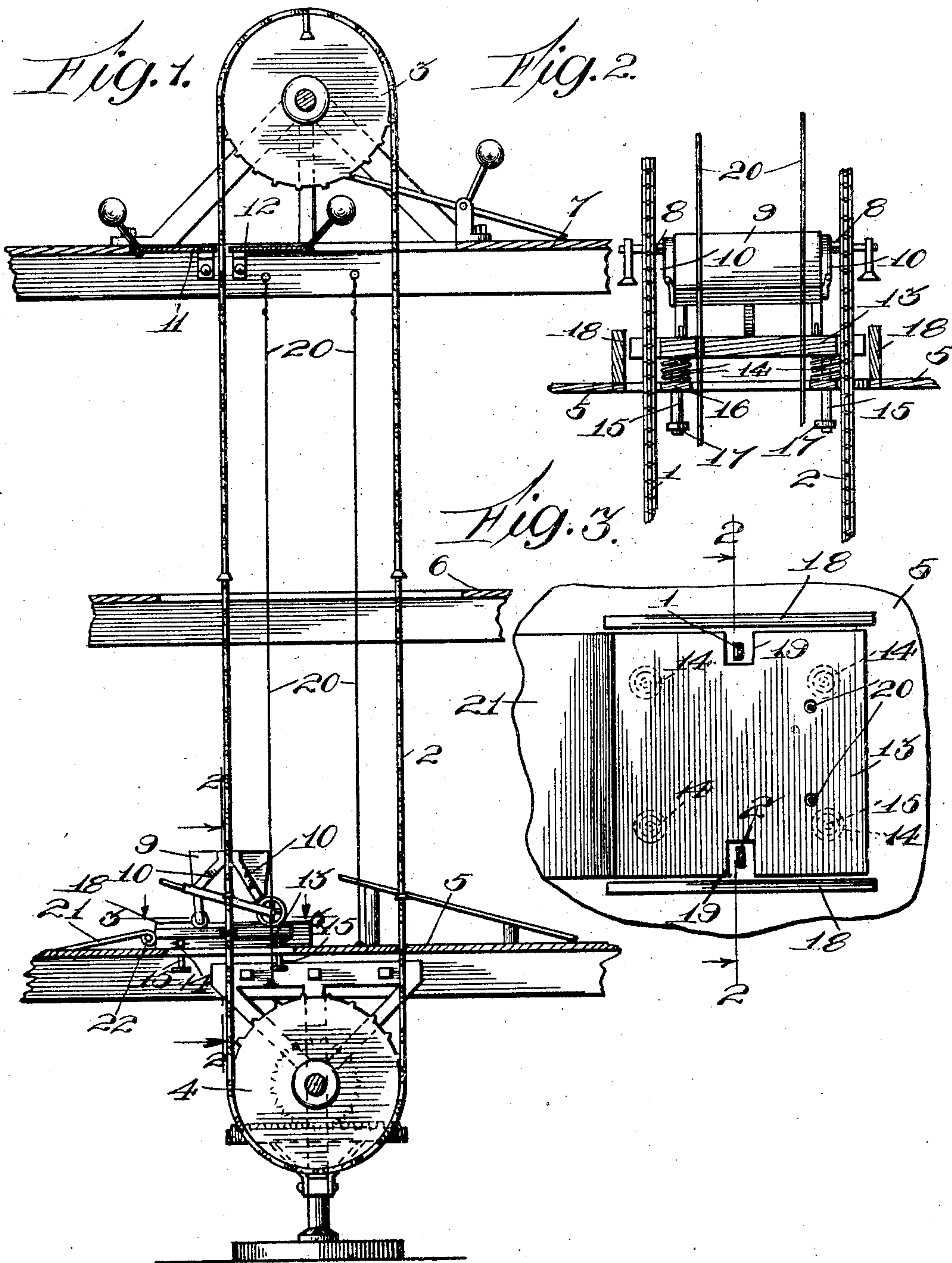


No. 796,431.

PATENTED AUG. 8, 1905.

C. A. JUHL.
HOIST OR ELEVATOR.
APPLICATION FILED NOV. 21, 1904.



Witnesses:
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UNITED STATES PATENT OFFICE.

CLAUS A. JUHL, OF CHICAGO, ILLINOIS.

HOIST OR ELEVATOR.

No. 796,431.

Specification of Letters Patent.

Patented Aug. 8, 1905.

Application filed November 21, 1904. Serial No. 233,572.

To all whom it may concern:

Be it known that I, CLAUS A. JUHL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hoists or Elevators, of which the following is a full, clear, and exact specification.

My invention relates to hoists or elevators more especially intended for hoisting material during the construction of buildings, and it is designed as an improvement upon a hoist or elevator of this character shown and described in United States Letters Patent No. 768,902, granted to me on the 30th day of August, 1904, to which reference may be had for an understanding of the parts of my former invention which are shown herein, but do not constitute any part of the present invention, which has for its primary object to provide improved and efficient means whereby to avoid the sudden strain or shock to which the chains or belts are subjected when the lugs thereon first engage and begin to lift the barrow or receptacle.

With a view to the attainment of the described ends the invention consists in the features of novelty in the construction, combination, and arrangement of parts, which will now be described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a side elevation of my improved apparatus, showing various floors of the building in section. Fig. 2 is a detail view showing the wheelbarrow in place, the barrow being in elevation and the platform and floor being in section on the line 2 2, Fig. 3; and Fig. 3 is a plan view of the platform with the barrow removed.

1 2 are two endless chains or other suitable belts which run over a pair of sprocket-wheels 3 at their upper ends and under sprocket-wheels 4 at their lower ends, as described and shown in my aforesaid patent, and which chains or belts extend through the various floors 5 6 7, above which the material is to be hoisted. On the inner sides of the chains or belts are formed or secured inwardly-projecting horizontal lugs 8, arranged at suitable intervals apart throughout the length of the chains, and the sides of the barrow 9 are provided with yokes 10, which are substantially inverted-V shape and into which the lugs engage as the chains or belts travel when a barrow

is placed in the proper position between the chains, thereby causing the barrow to be lifted through the various floors to a position above the receiving-platforms 11 12. In order, however, that the chains may be relieved of the severe strain and shock to which they are subjected by the weight of the barrow or receptacle being thus suddenly imposed upon them, the barrow is placed upon a cushioned platform 13 preparatory to being lifted by the lugs, and the cushion of this platform is of sufficient resistance to almost lift the barrow with its load, so that the strain on the chains when the lugs 8 first engage will be very slight and the weight will increase gradually until the cushion ceases to recoil, thus preventing sudden shock or strain. The platform 13 may be thus cushioned by any suitable means—such, for example, as a number of coil-springs 14, preferably arranged at the corners of the platform and coiled around depending stems or guides 15, which extend through cross-bars 16 on the floor 5 and have stops 17 for limiting their upward movement. If desired, side guides 18 may be arranged at the sides of the platform for holding it against lateral movement and avoiding the possibility of the lugs 8 missing the yokes 10. The sides of the platform are notched or recessed, as shown at 19, for the passage of the chains 1 2, and one pair of the guard-wires 20 on the side of the shaft upon which the platform 13 is located, if said guard-wires be employed, may also be passed through platform 13.

In order that the barrow may be readily rolled upon the platform 13, the outer edge of the latter is provided with a skid or incline 21, secured thereto by any suitable hinge 22.

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

1. In a hoist the combination of a receptacle for the material to be hoisted, a pair of endless belts, said belts and receptacle having means whereby the belts automatically pick up the receptacle, and a cushioned platform on which the receptacle rests preparatory to being picked up by the belts.

2. In a hoist the combination of a pair of vertically-traveling belts having inwardly-projecting lugs, a receptacle for the material to be hoisted having yokes on the sides thereof for receiving and engaging said lugs automatically as the belts travel, a cushioned platform on which the receptacle rests prepara-

tory to being lifted by the belts, and guides for guiding said platform in its vertical movement.

3. In a hoist the combination of a cushioned platform, a skid or incline hinged to one end thereof, a pair of vertically-traveling belts between which said platform is situated, a receptacle adapted to be supported upon said

platform, yokes on the sides of said receptacle and inwardly-projecting lugs on said belts adapted to engage in said yokes for lifting the receptacle.

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