

(No Model.)

2 Sheets—Sheet 1.

C. H. AVERBERG.

CARRIAGE ESCAPE.

No. 366,365.

Patented July 12, 1887.

Fig. 1.

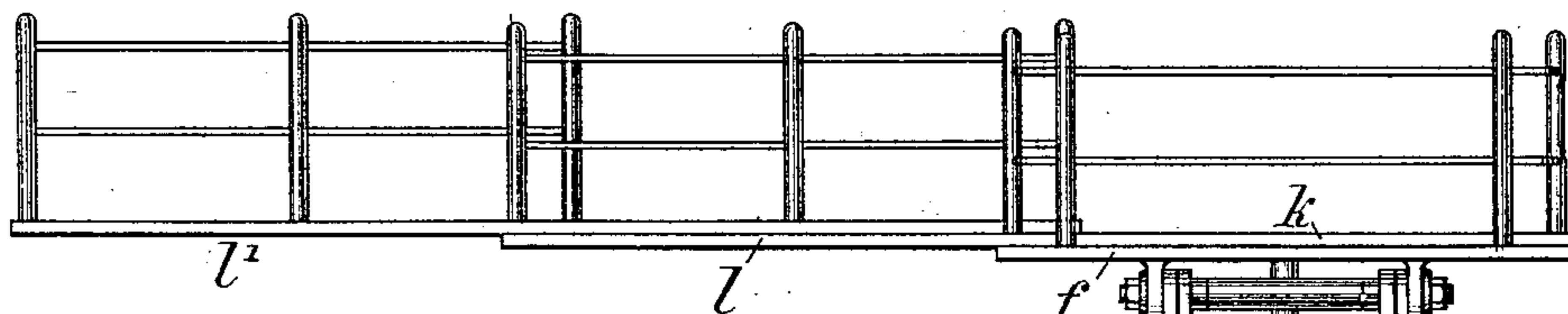
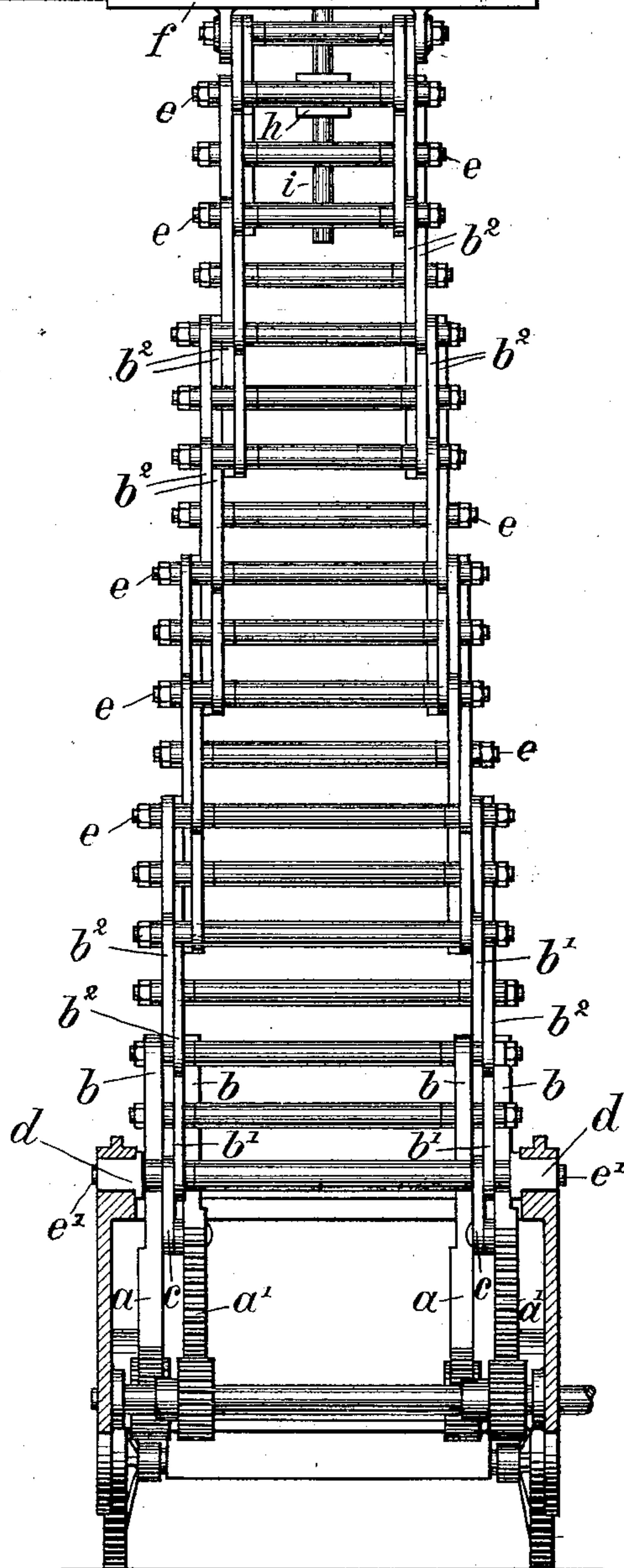
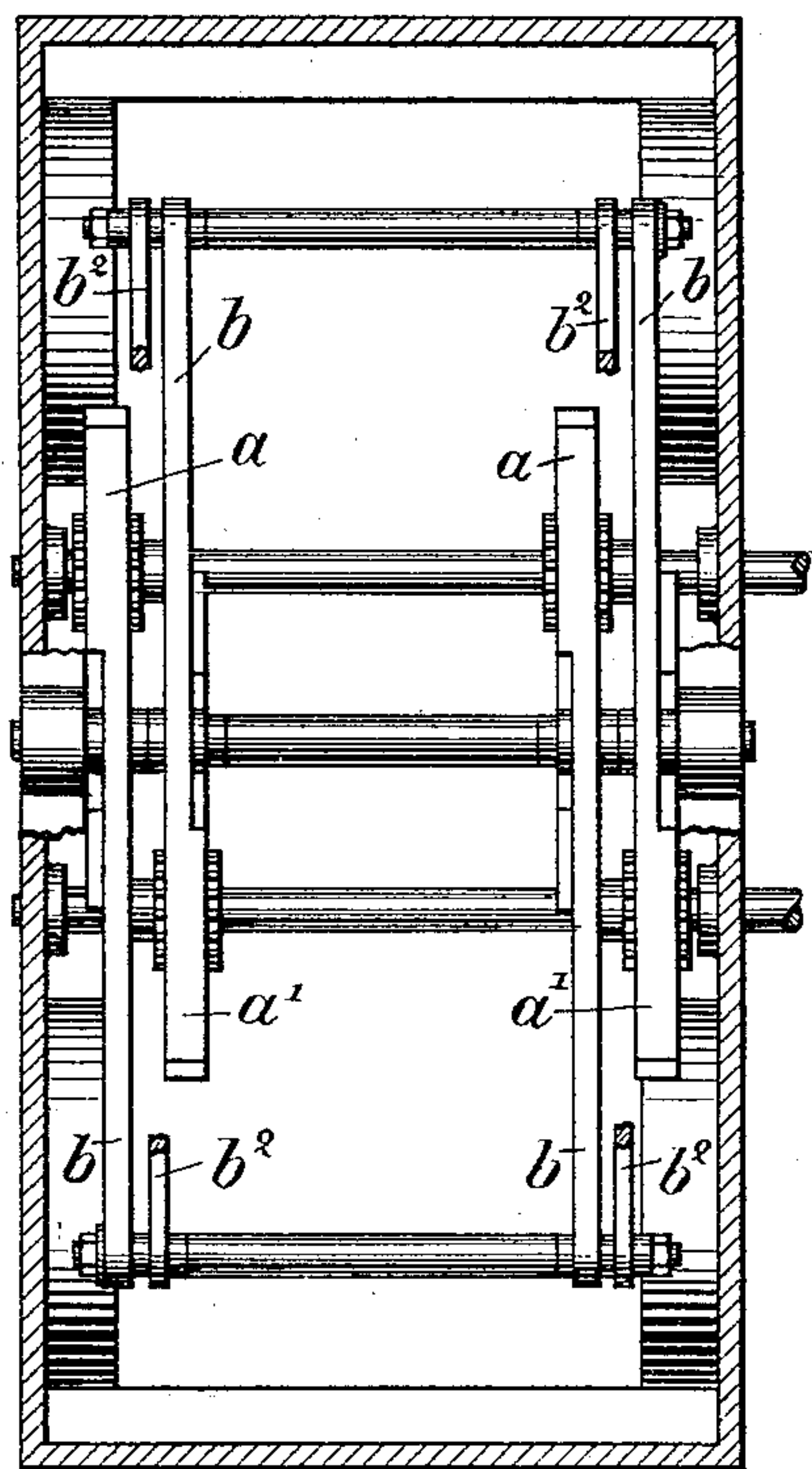


Fig. 2.



Witnesses.

C. S. Beer,
O. A. Clark,

Inventor.

Carl Heinrich Averberg.
By *Paine & Ladd,*
Attys.

(No Model.)

2 Sheets—Sheet 2.

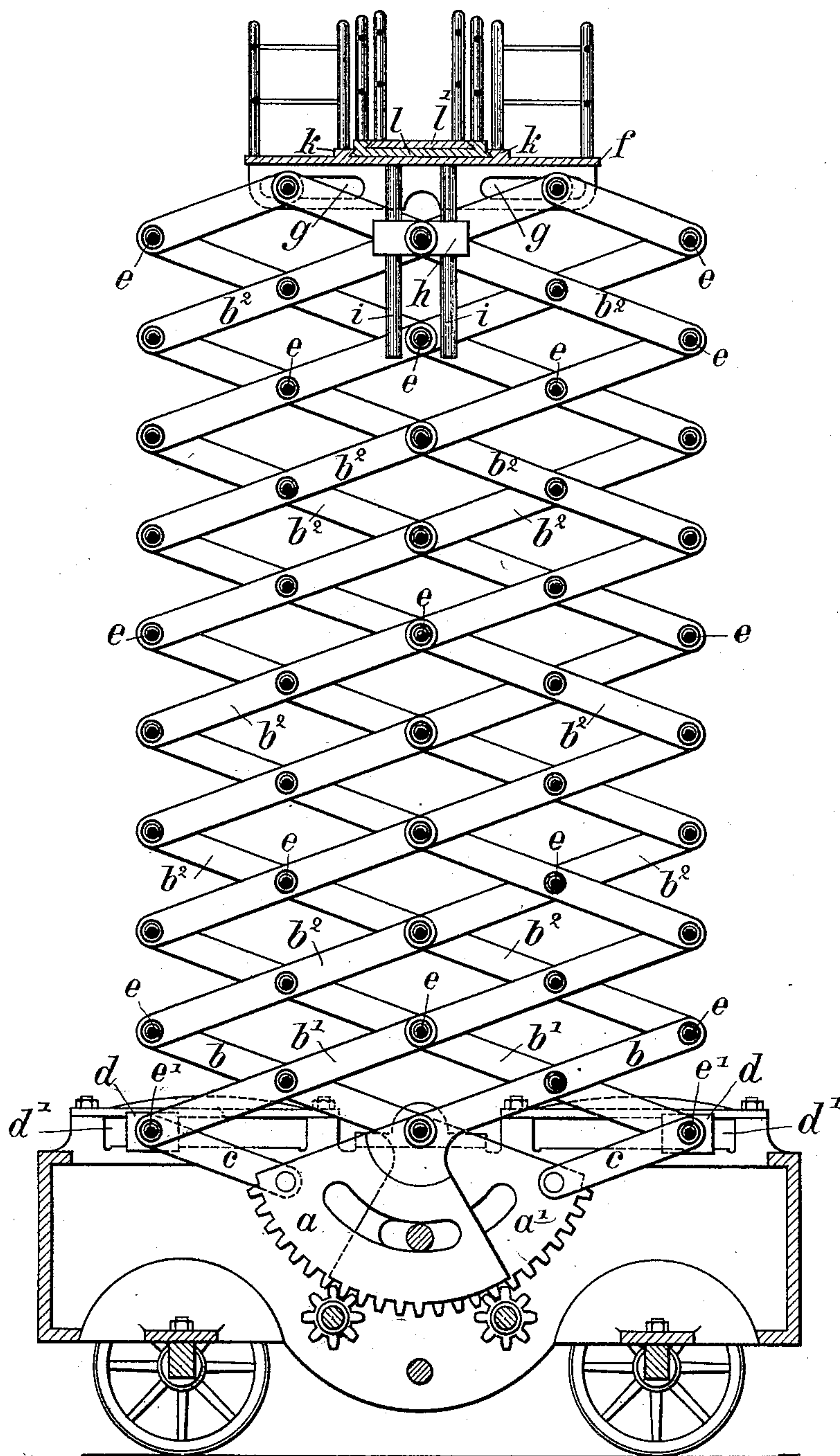
C. H. AVERBERG.

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No. 366,365.

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Fig. 3.



Witnesses.

E. J. Peet.
O. A. Clark

Inventor.

Carl Heinrich Averberg
By *Rainer & Son*,
Attys.

UNITED STATES PATENT OFFICE.

CARL HEINRICH AVERBERG, OF HAMBURG, GERMANY.

CARRIAGE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 366,365, dated July 12, 1887.

Application filed September 13, 1886. Serial No. 213,918. (No model.) Patented in Germany February 9, 1886, No. 37,220.

To all whom it may concern:

Be it known that I, CARL HEINRICH AVERBERG, a subject of the German Emperor, and a resident of Hamburg, in the German Empire, have invented certain new and useful Improvements in Carriage-Escapes, (for which I have obtained German patent, dated February 9, 1886, which, since the filing of the present application, has been numbered 37,220,) of which the following is a specification.

My invention relates to improvements in fire-escapes which are composed substantially of a pair of lazy-tongs mounted on wheels; and the objects of my improvements are, first, to obtain a high degree of stability of said lazy-tongs, and, second, to facilitate the connection of the apparatus with the building on fire. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of an apparatus provided with my said improvements; and Fig. 2, a plan of the lower part of the apparatus, both figures partly in section. Fig. 3 is a sectional side elevation of the complete apparatus.

Similar letters refer to similar parts throughout the several views.

My improved apparatus is composed of two double lazy-tongs—one on each side. The double lazy-tongs are formed in such a manner as to make the arms of the same of double length, and to employ a double number of arms. Thus each arm will be connected movably at five points with five other arms, as is illustrated in Fig. 3. The pivot-bolts *e*, which join the arms of the one lazy-tongs are prolonged transversely through the whole apparatus to the other lazy-tongs, and their other ends form the pivots of the arms of the other lazy-tongs. Thus both lazy-tongs are solidly connected, whereby a great stability is obtained, so much the more as the bolts *e* are graduated by decreasing in length from the lower to the upper part of the lazy-tongs.

Each double lazy-tongs is connected with a pair of toothed segments, *a a'*, to which the arms *b* are attached rigidly, while the arms *b'* are connected thereto by links *c*. The pivots *e'* of the links *c* and the arms *b'* are placed in the guides *d*, which slide in the notches *d'* of

the carriage-frame. Thus the oscillation of the segments *a a'*, produced by a suitable transmission of power, will cause the lazy-tongs to extend and to contract, as the other arms, *b'*, of the lazy-tongs are connected with the arms *b b'* in the manner as described.

At the top of the lazy-tongs is a platform, *f*, in the notches *g* of which the uppermost arms of the lazy-tongs are guided analogously as the lowest ones in the notches *d'*. To maintain this platform permanently in the center of the apparatus, that pivot-rod *e* which is the uppermost one in the center line is provided with a movable block, *h*, in the lateral perforations of which two parallel rods, *i*, fixed to the under side of the platform are guided.

A double bridge, *l l'*, slides between the guides *k* on the platform *f*, and constitutes, when it is pushed out to either side, the communication with the building on fire. The upper piece, *l'*, of the bridge is guided on the lower one, *l*, in an analogous manner as the latter one on the platform *f*. It enters, when pushed on, directly in one of the windows or other suitable openings of the building.

I am aware of the construction disclosed in German Patent No. 996, and I do not wish to be understood as claiming, broadly, any feature set forth in said patent.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. The combination, in a fire-escape, of a supporting-frame, pivoted gear-segments having arms *b b'*, links *c c*, and a double lazy-tongs connected to said arms and links; and means for operating said segments, as described.

2. In a fire-escape, the combination of a pair of lazy-tongs, a block, *h*, pivoted on the upper center rod, *e*, the parallel rods *i*, and the platform *f*, substantially as set forth.

3. In a fire-escape, the combination, with a pair of lazy-tongs, of a platform, *f*, mounted thereon, and provided on its upper side with guides, a bridge-section, *l*, sliding in said guides, and having guides on its upper face, and a section, *l'*, sliding in said last-mentioned guides, substantially as set forth.

4. The combination, in a fire-escape, of a supporting-frame provided with horizontal

notches or grooves d' , pivoted gear-segments
having arms $b b'$, links $c c$, and a double lazy-
tongs connected to said arms and links, guide-
blocks sliding in said notches or grooves, and
5 means for operating the gear-segments, sub-
stantially as set forth.

In testimony that I claim the foregoing as

my invention I have signed my name, in pres-
ence of two witnesses, this 13th day of August,
1886.

CARL HEINRICH AVERBERG.

Witnesses:

ALEXANDER SPECHT,

EMIL HAASE.