

(No Model.)

2 Sheets—Sheet 1.

C. T. MERRITT.
FIRE ESCAPE LADDER.

No. 283,008.

Patented Aug. 14, 1883.

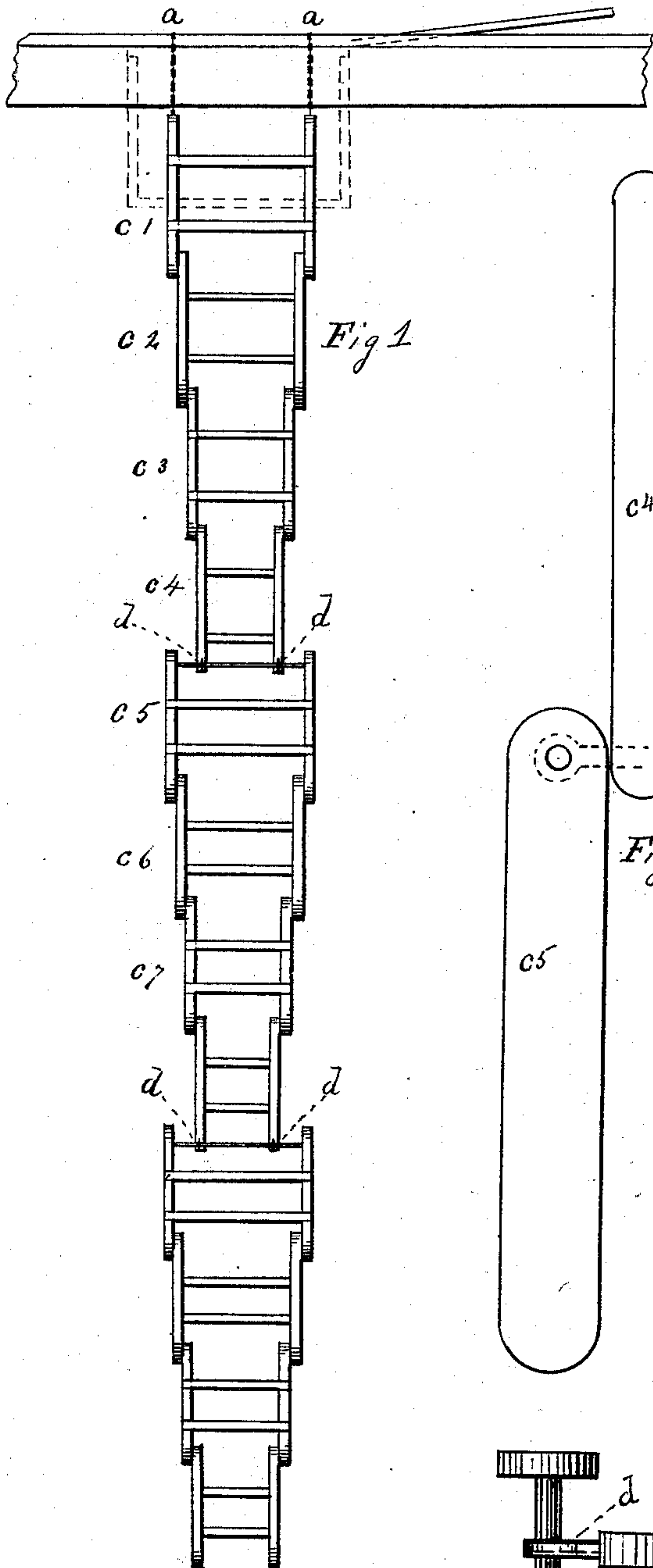


Fig 1

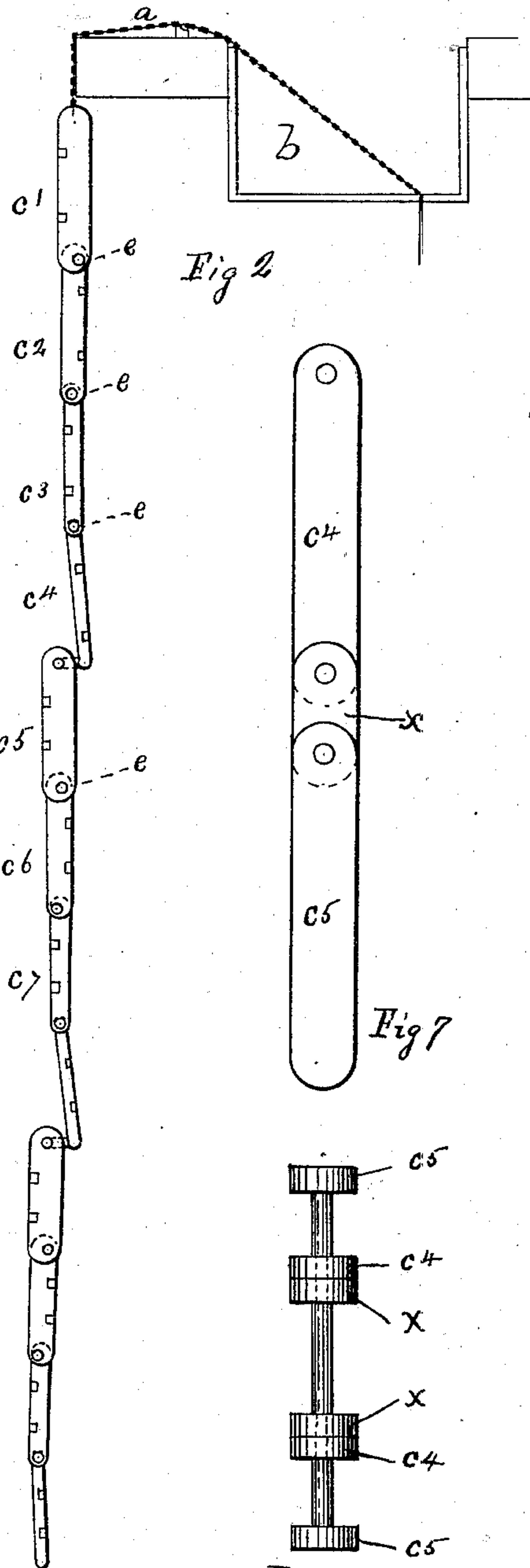


Fig 2

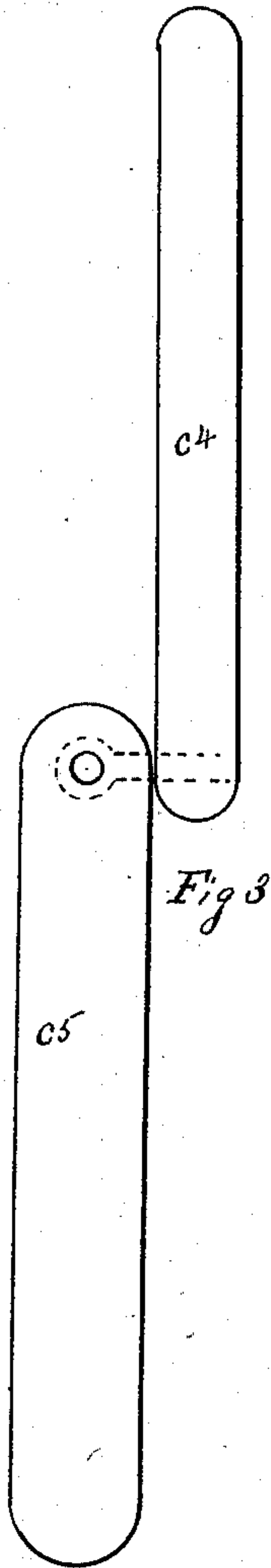


Fig 3

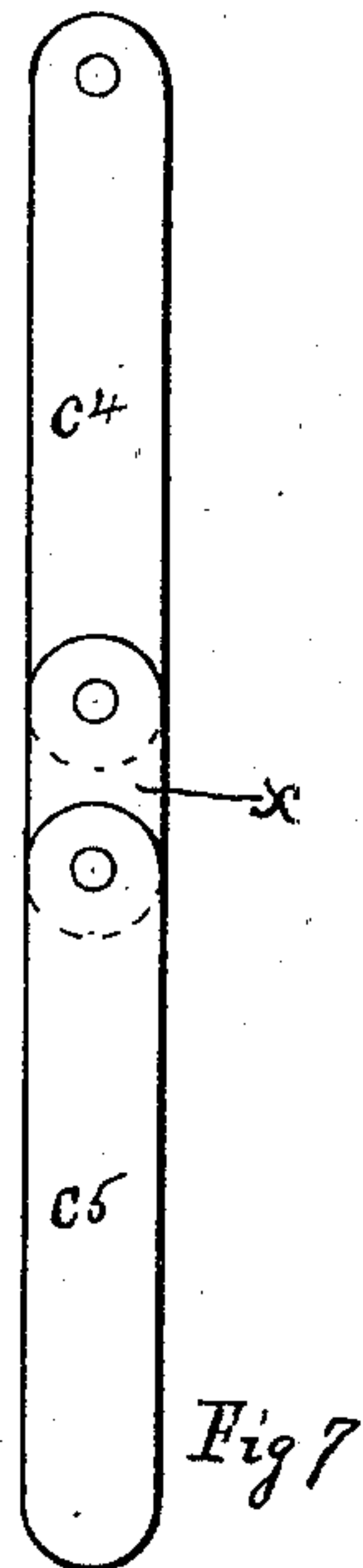


Fig 7

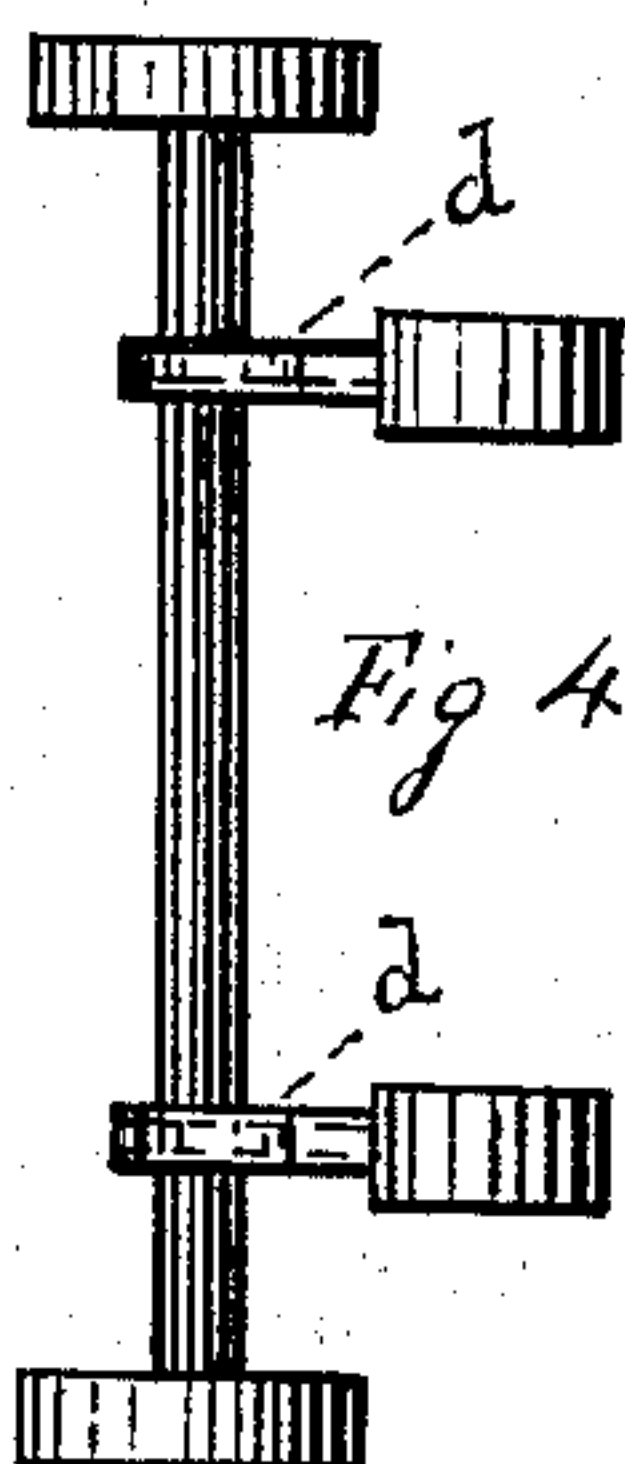


Fig 4

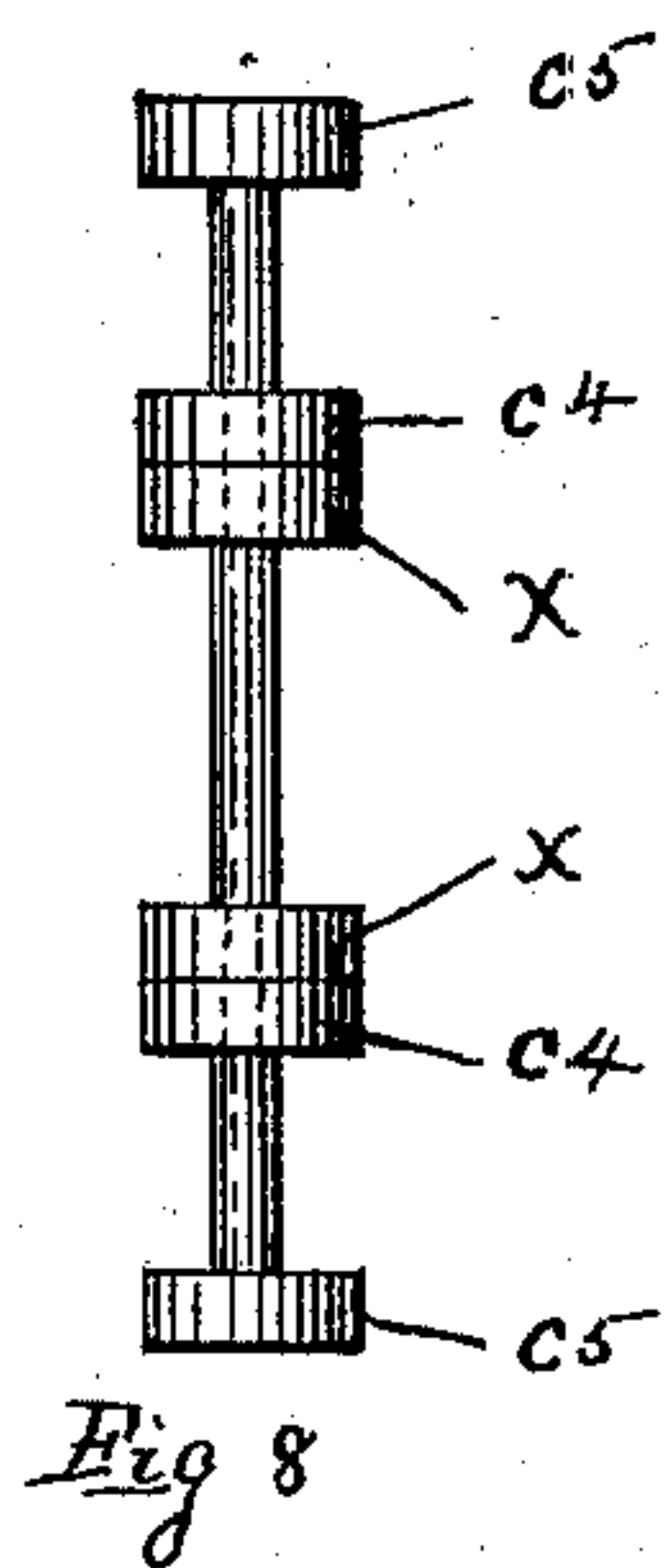


Fig 8

Witnesses:

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H. Rodman.

Inventor;

Charles T. Merritt
By Wallace L. DeWolfe
Attorney.

(No Model.)

2 Sheets—Sheet 2.

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FIRE ESCAPE LADDER.

No. 283,008.

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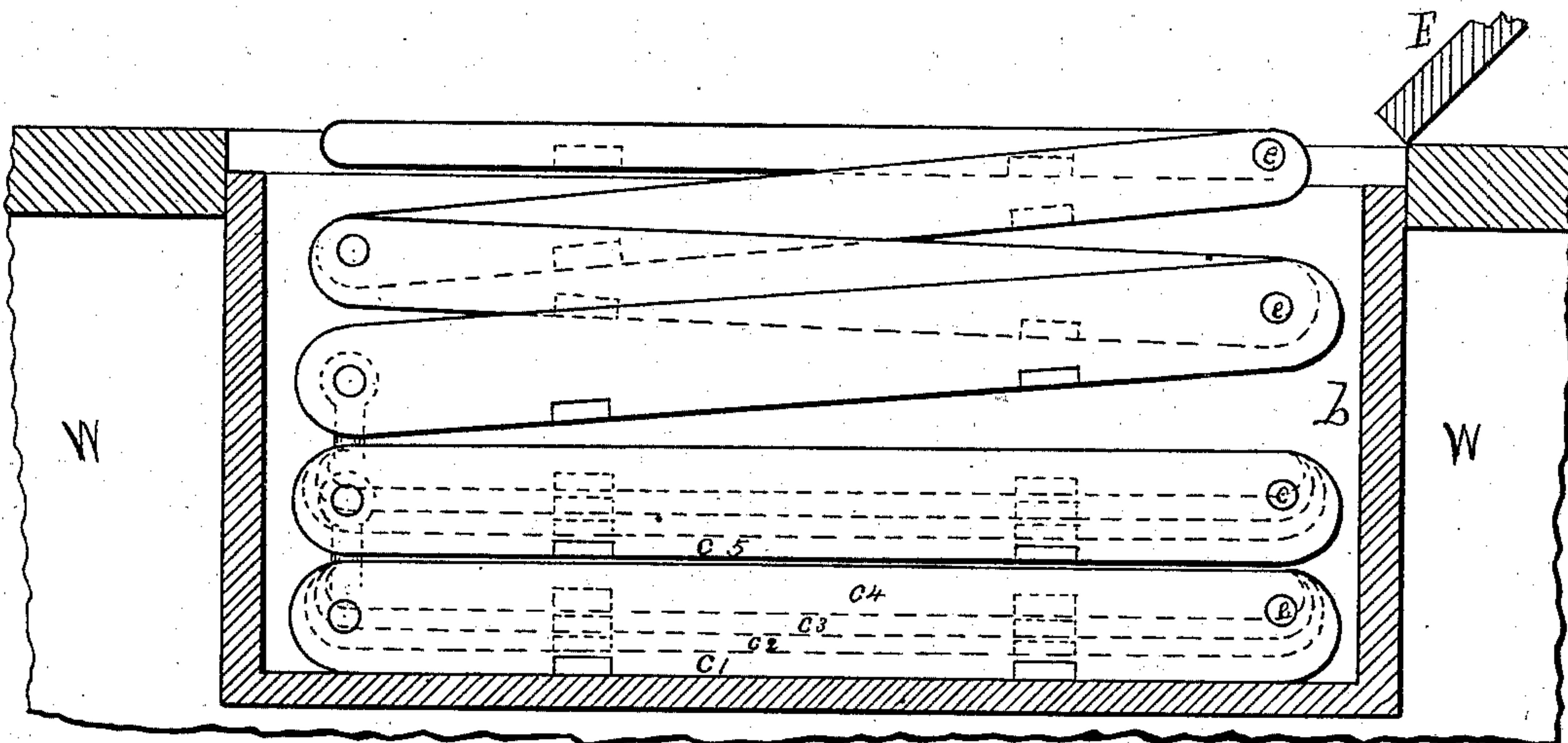


Fig 5

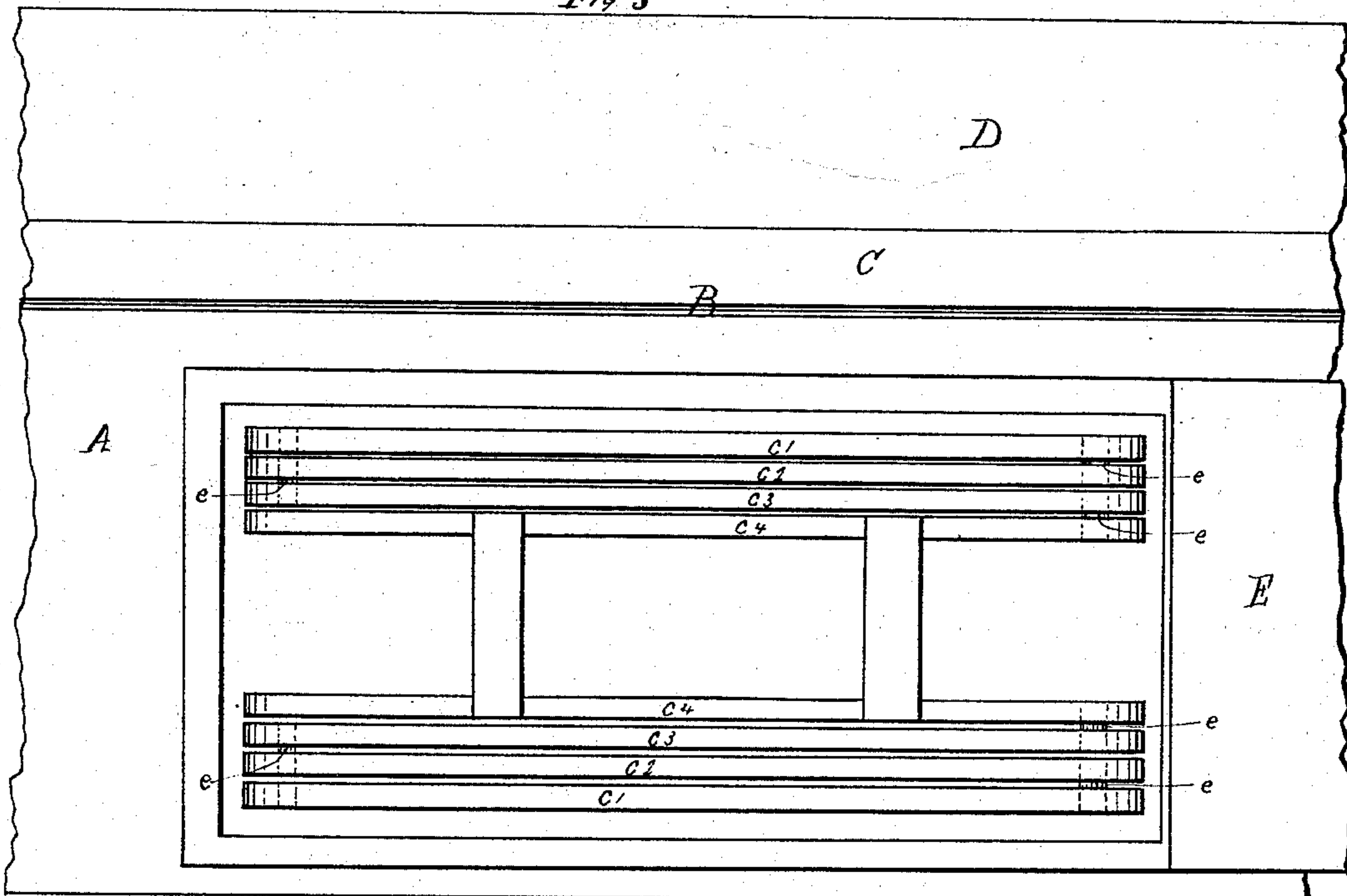


Fig 6

Witnesses:

Wm Buckingham,
L. Rodman.

Inventor:

Charles T. Merritt
By Wallace L. De Wolf.
Attorney

UNITED STATES PATENT OFFICE.

CHARLES T. MERRITT, OF HYDE PARK, ILLINOIS.

FIRE-ESCAPE LADDER.

SPECIFICATION forming part of Letters Patent No. 283,008, dated August 14, 1883.

Application filed February 8, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. MERRITT, a citizen of the United States, and residing in Hyde Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Fire-Escape Ladders, of which the following is a specification.

The object of my invention is a fire-escape ladder which does not render the exterior of a building unsightly, and which, by folding, as herein described, will not occupy space designed for other purposes, and which will afford to occupants of a building as easy a means of escape as a stationary ladder. The ladder may be made of wood, iron, or other suitable material, and is constructed in sections of two or more rounds each, the top section of the extended ladder being the larger, and each succeeding section being smaller until a new series of sections is advisable. These sections are joined together by bolts, and when the ladder is not in use the smaller sections may be folded within the preceding larger one, and thus several feet of the ladder when folded will only occupy the space of the first or larger section. When a new series of sections is deemed advisable, the succeeding sections may in turn be folded within the first section of that series. The ladder is fastened by chains to the bottom of a box of proper size, fixed in the window-sill or other position desired, and when not in use may be folded within the box.

In the drawings, Figure 1 represents a front view of the ladder hanging from a window, the ladder being made of three series of four sections each; Fig. 2, a side view of the same; Fig. 3, the vertical projection, showing the details of the joint connecting the series of the sections of the ladder; Fig. 4, a horizontal projection of the same; Fig. 5, a section of the box, showing ladder folded in it, lid of the box open and broken off to save space; Fig. 6, a top view of the box open with ladder folded within; Fig. 7, a side view of another form for the projection connecting the series of the sections; Fig. 8, a horizontal view of the same.

Similar letters refer to similar parts throughout the several views.

a a represent the chains to which the ladder

is attached; *b*, the box in which the ladder can be folded; *d d*, the projections connecting different series of the sections; *xx*, the section connecting *c*⁴ and *c*⁵, as shown in Figs. 7 and 8; *c' c*² *c*³ *c*⁴ *c*⁵, sections of the series; *eeee*, bolts which join the sections; *A*, the sill inside the window; *C*, the window-frame; *D*, the outside sill; *W*, the wall in which the box *b* is placed. Where the inside sill is wide enough, the box may be placed in such a position that the sides of the ladder when folded will lie at right angles to the window, so that the ladder will more readily unfold. The projection *d* is only needed at the sections where a new series is deemed advisable, and should project, so as to allow *c*⁵ to fold over *c'*, as shown in Fig. 5. In Figs. 7 and 8, I connect the series of sections by means of the sections *xx*, which are connected to the sides of the section *c*⁴ by bolts, while the rod connecting the sides of the section *c*⁵ passes through the sections *xx*. A shoulder should be made in the rod connecting the sides of the section *c*⁵, so that the connecting sections *xx* will not slip from side to side on the rod.

The ladder should be so constructed that when extended, as in Fig. 1, the rounds of the first section should be secured to the front of the sides of the section, and in the second section should be secured to the back of the sides of the section, and the rounds of the third section as in the first section, &c., as shown in the drawings, Figs. 1 and 2.

By constructing the ladder in the manner shown it will readily fold, and the sections *c*², *c*³, and *c*⁴ will fold within *c'*, and the next series of sections within *c*⁵. When the ladder is folded in the box at right angles to the window, it may be lifted from the box in sections, and a rope may be attached to the lower round, so that it may be fastened.

Having fully described my invention, what I desire to claim and secure by Letters Patent is—

1. A ladder consisting of a series of sections of one or more rounds each, so constructed that the section *c*⁴ will fold within *c*³, *c*³ within *c*², and *c*² within *c'*, *c*⁴ being connected with the next series of sections by the sections

$x x$ or the horizontal projection d , substantially as shown and described.

2. A fire-escape ladder made in a series of sections, the rounds of the ladder of each section being on opposite sides from the preceding section, so constructed that the section c^4 will fold within c^3 , c^3 within c^2 , and c^2 within c^1 , and by means of the connecting sections $x x$ the section c^5 will fold over c^1 , c^6 being folded

within c^5 , c^7 within c^6 , &c., said ladder being fastened by chains to the bottom of the box in which it may be folded, substantially as set forth and described.

CHARLES T. MERRITT.

Witnesses:

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WALLACE L. DE WOLF.