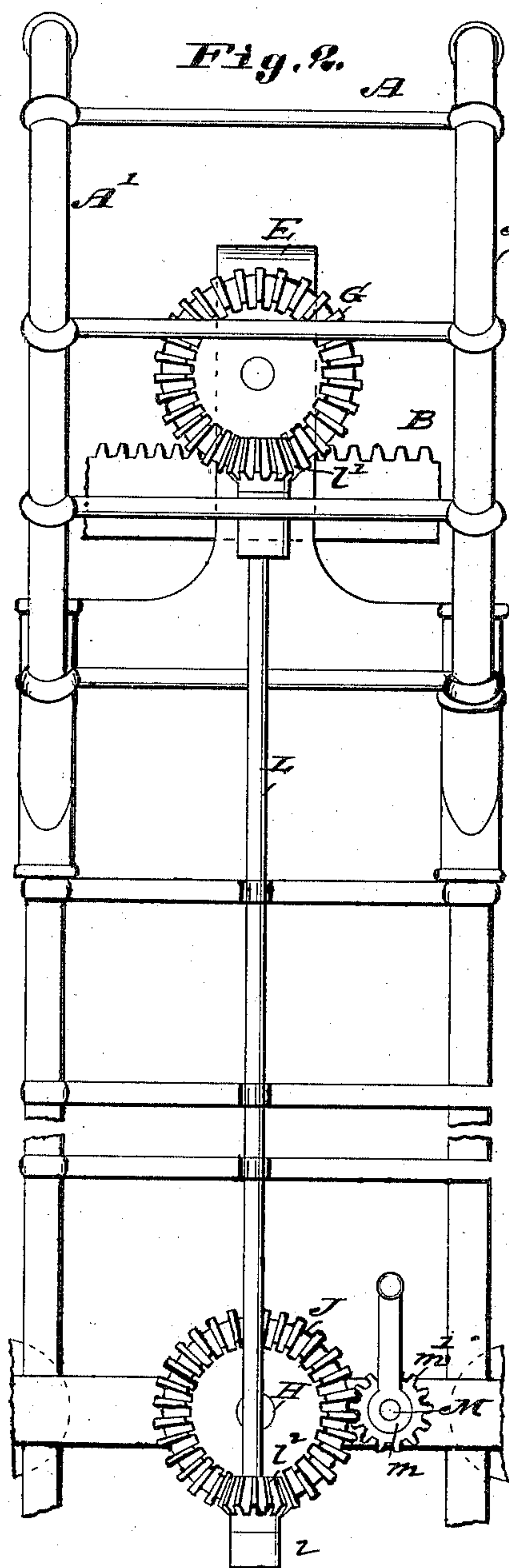


(No Model.)

F. SHICKLE.
FIRE ESCAPE.

No. 312,909.

Patented Feb. 24, 1885.



Attest,
Charles Pickles
Gora E. Hunt

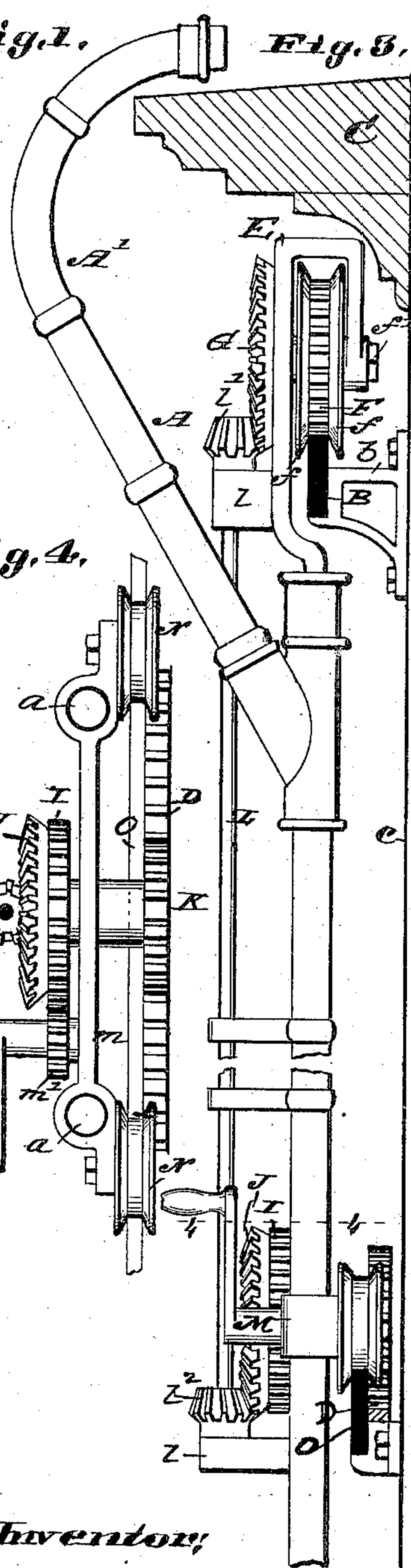
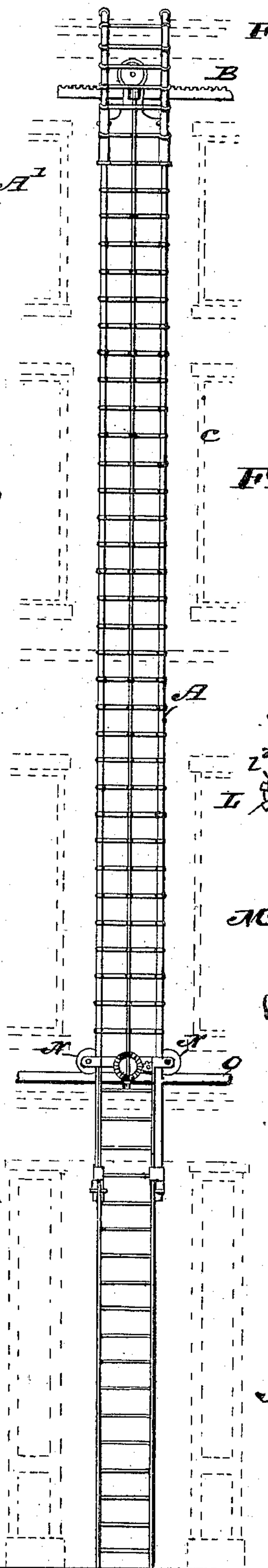
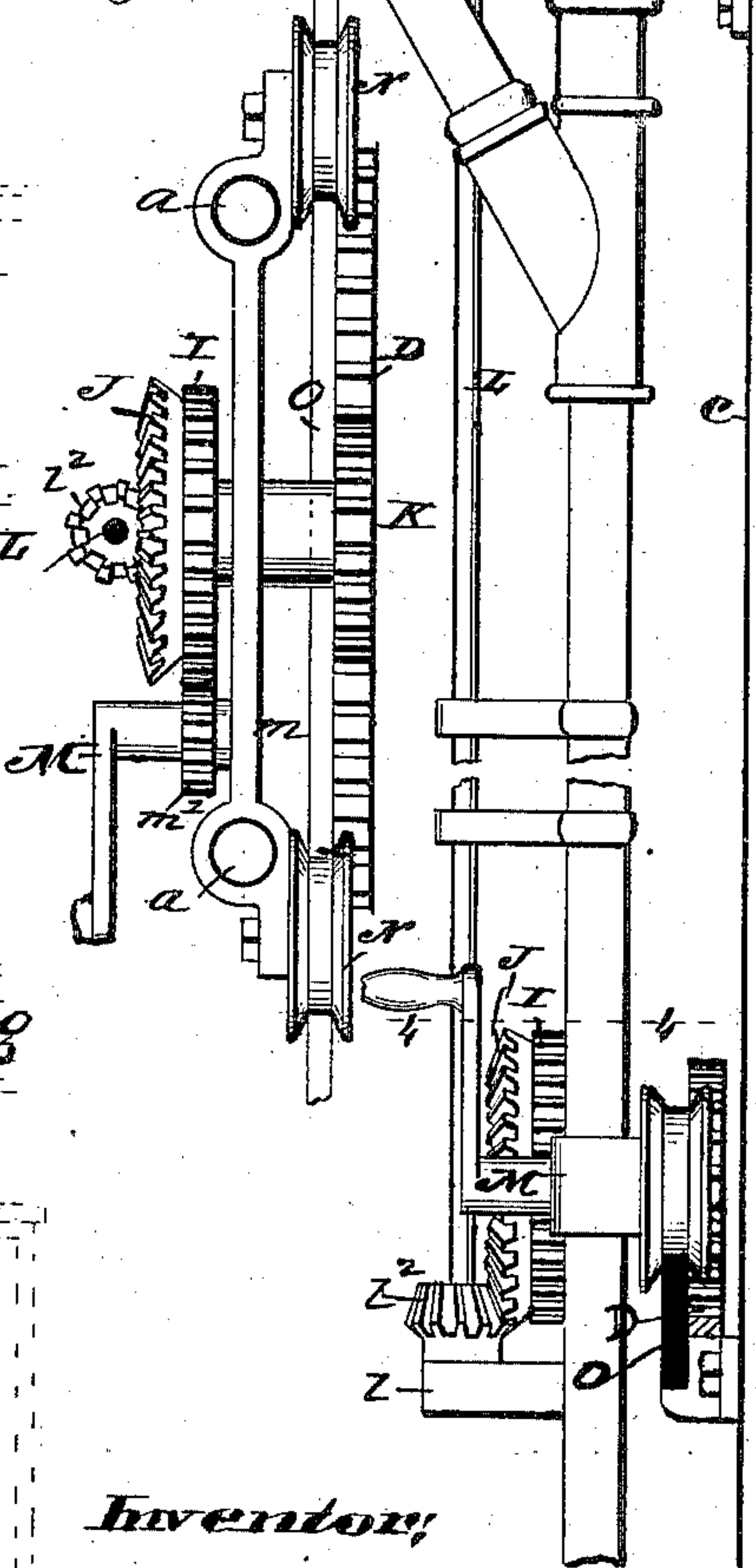


Fig. 4.



Inventor,
Frederick Shickle
by C. D. Moody
att'y

UNITED STATES PATENT OFFICE.

FREDERICK SHICKLE, OF ST. LOUIS, MISSOURI.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 312,909, dated February 24, 1885.

Application filed June 9, 1884. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK SHICKLE, of St. Louis, Missouri, have made a new and useful Improvement in Fire-Escapes, of which
5 the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a front elevation of the improved
10 fire-escape in position, the building-front being shown in broken lines; Fig. 2, a front elevation, upon an enlarged scale, of the escape; Fig. 3, a side elevation of the escape, the building-front being shown in vertical section; and
15 Fig. 4, a horizontal section, upon an enlarged scale, upon the line 4 4 of Fig. 3.

The same letters of reference denote the same parts.

The present invention is an improvement
20 in that class of fire-escapes wherein a ladder is permanently attached to the building.

The improvement relates to the means by which the ladder is attached to and adjusted upon the building.

25 A represents the ladder.

B represents a toothed rail or rack, attached by means of brackets, such as *b*, to the building C at or toward its top. The rail may extend along the front *c*, as well as along the
30 sides of the building.

D represents another toothed rail or rack, which is attached to and extends along the front or front and sides of the building lower down upon the building than the first-named
35 rail.

The ladder is hung upon the two rails B D as follows:

E represents a hanger attached to the ladder and provided with a pinion, F. The pinion has flaring flanges *f f*, and it is attached
40 to a shaft, *f'*, which passes through the hanger, and in front of the hanger is provided with a bevel-gear, G.

Opposite the lower rack, D, a shaft, H, is
45 journaled in the ladder, the shaft extending

at right angles to the ladder, and provided in front of the ladder with the gear I and the bevel-gear J, and in rear of the ladder with the pinion K. The pinion engages with the lower rack, D.

L represents an upright shaft journaled in the ladder at *l l*, and provided with the bevel-pinions *l' l'*, which engage, respectively, with the bevel-gears G J.

M represents a crank-shaft journaled in the ladder at *m* and provided with the pinion *m'*, which engages with the gear I.

The ladder is also furnished with the grooved pulleys N N, which are adapted to roll upon a rail, O, which is attached to the building in front of the lower rack, D.

On rotating the crank M motion is imparted to the upright shaft L, and through it to the pinions F K, and the ladder in consequence is moved laterally along the building front or
65 sides and to the right or left, according to the direction in which the crank-shaft M is rotated.

The sides *a a* of the ladder are preferably made tubular, to furnish means for conducting
70 streams of water upward onto the building. The upper end of the ladder is extended at A' A', Figs. 1, 3, to enable the water to be thrown onto the roof of the building.

I claim—

1. The combination of the rails B and D, the ladder A, the hanger E, the shaft H, and the wheels F K, adapted to be applied to a building, substantially as described.

2. The combination, as described, of the
80 racks B D, the ladder A, the hanger E, the shaft H, the wheels F K, the gears G I J *m'*, the shafts L M, the rail O, and pulleys N N, adapted to be applied to a building, substantially as described.

Witness my hand.

FREDERICK SHICKLE.

Witnesses:

C. D. MOODY,
CORA E. HUNT.