

No. 776,609.

PATENTED DEC. 6, 1904.

M. W. MIRACLE.

FIRE ESCAPE.

APPLICATION FILED JULY 9, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

FIG. 1.

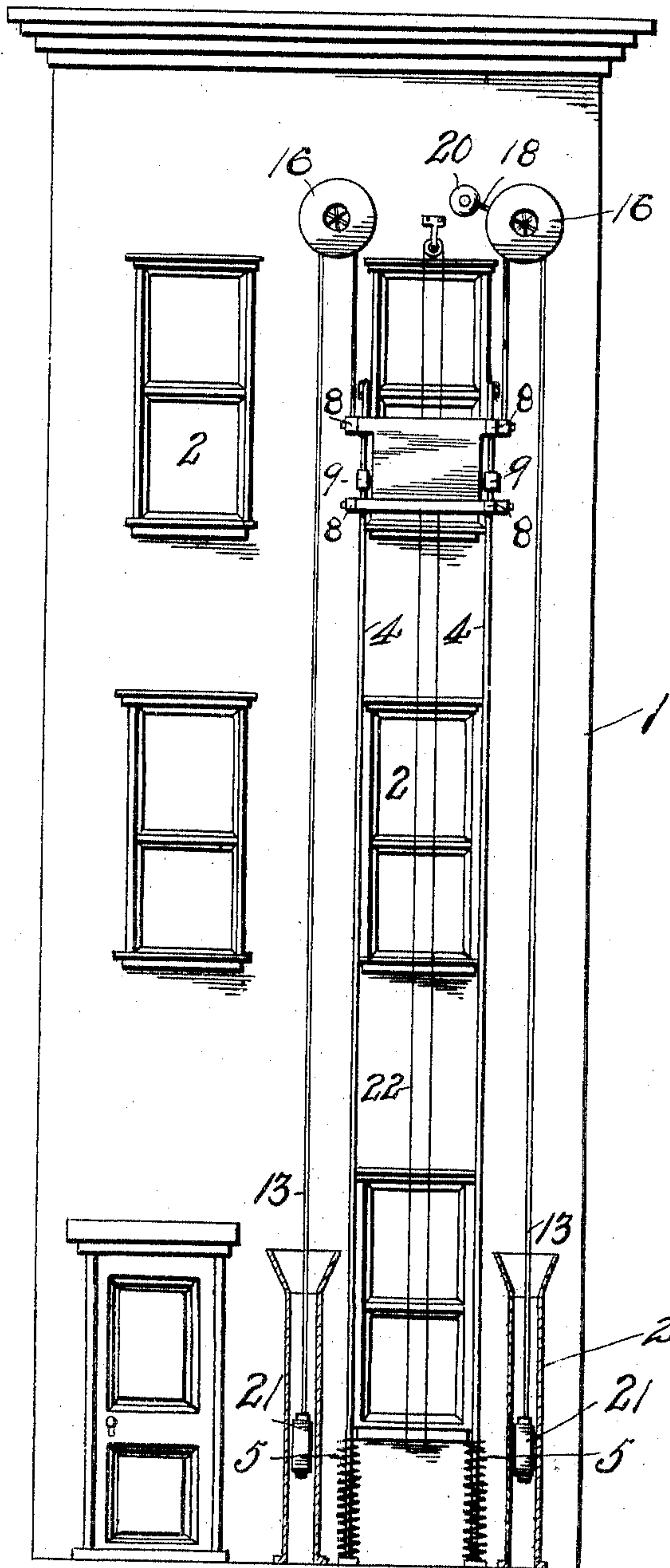
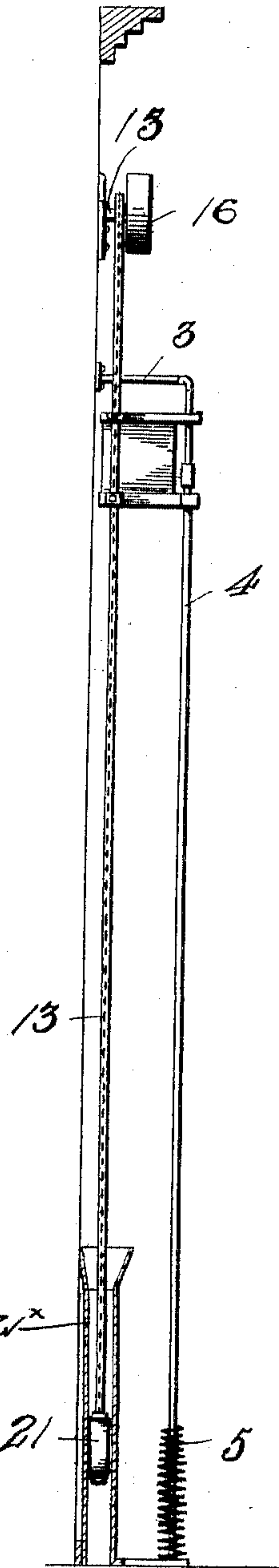


FIG. 2.



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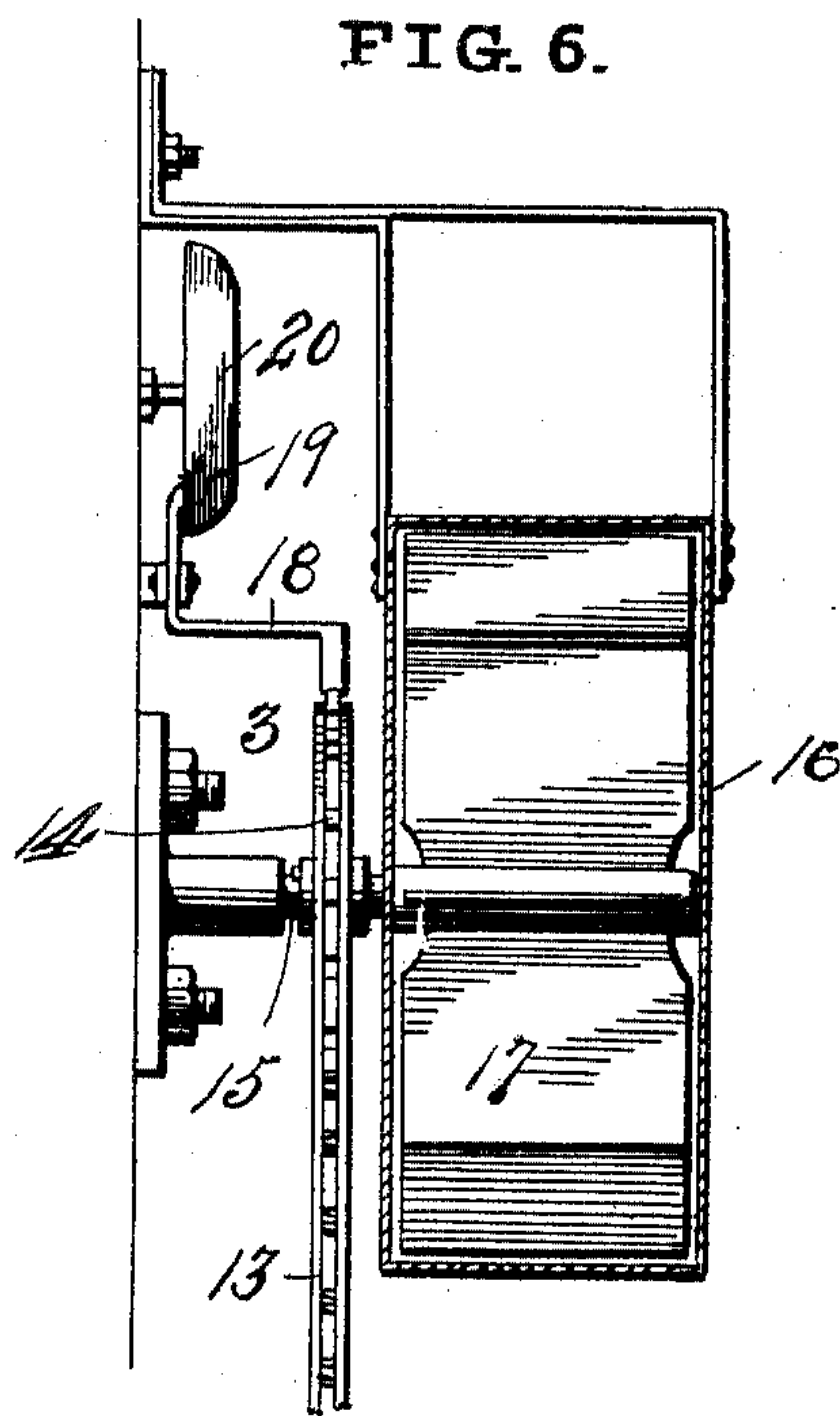
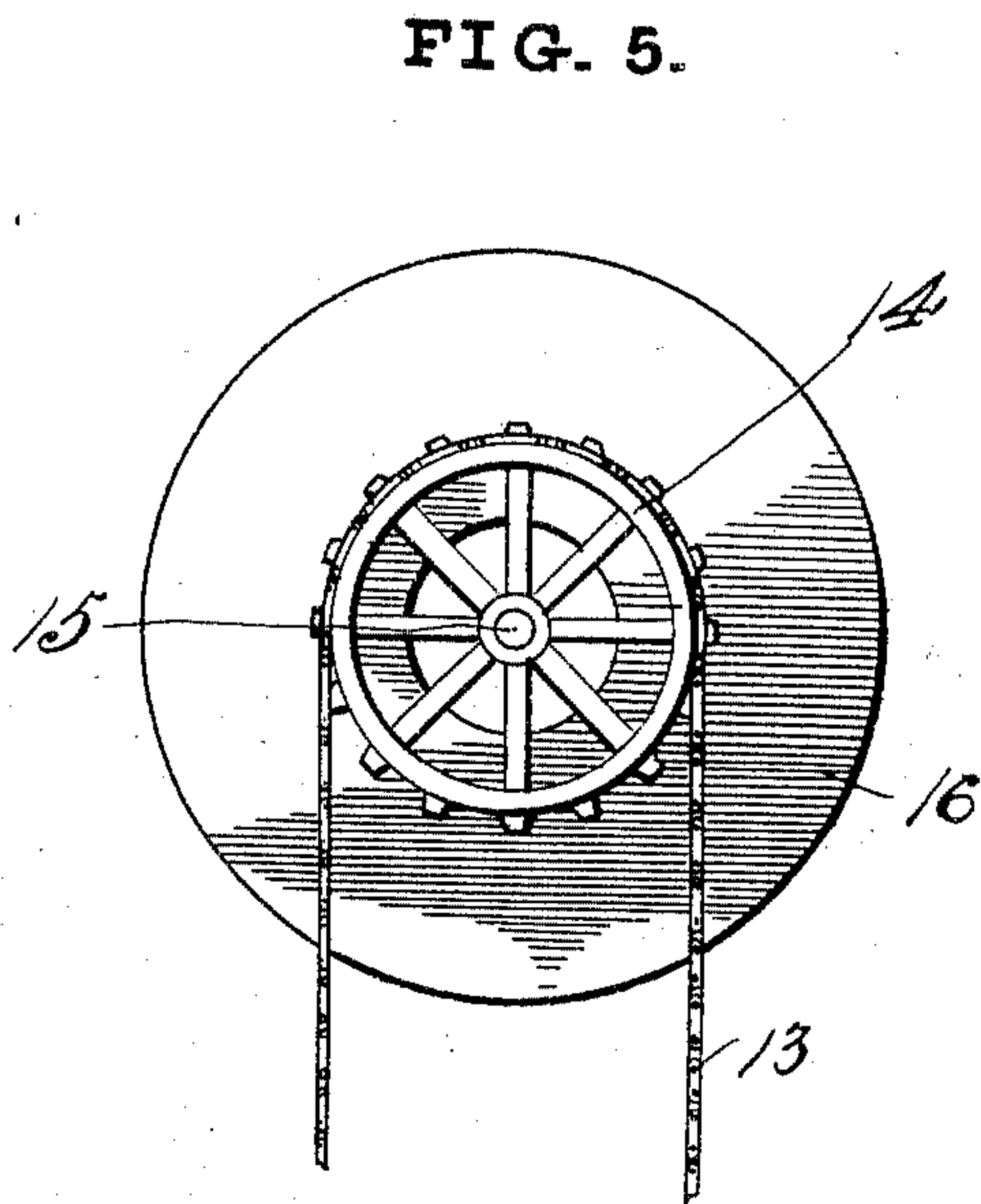
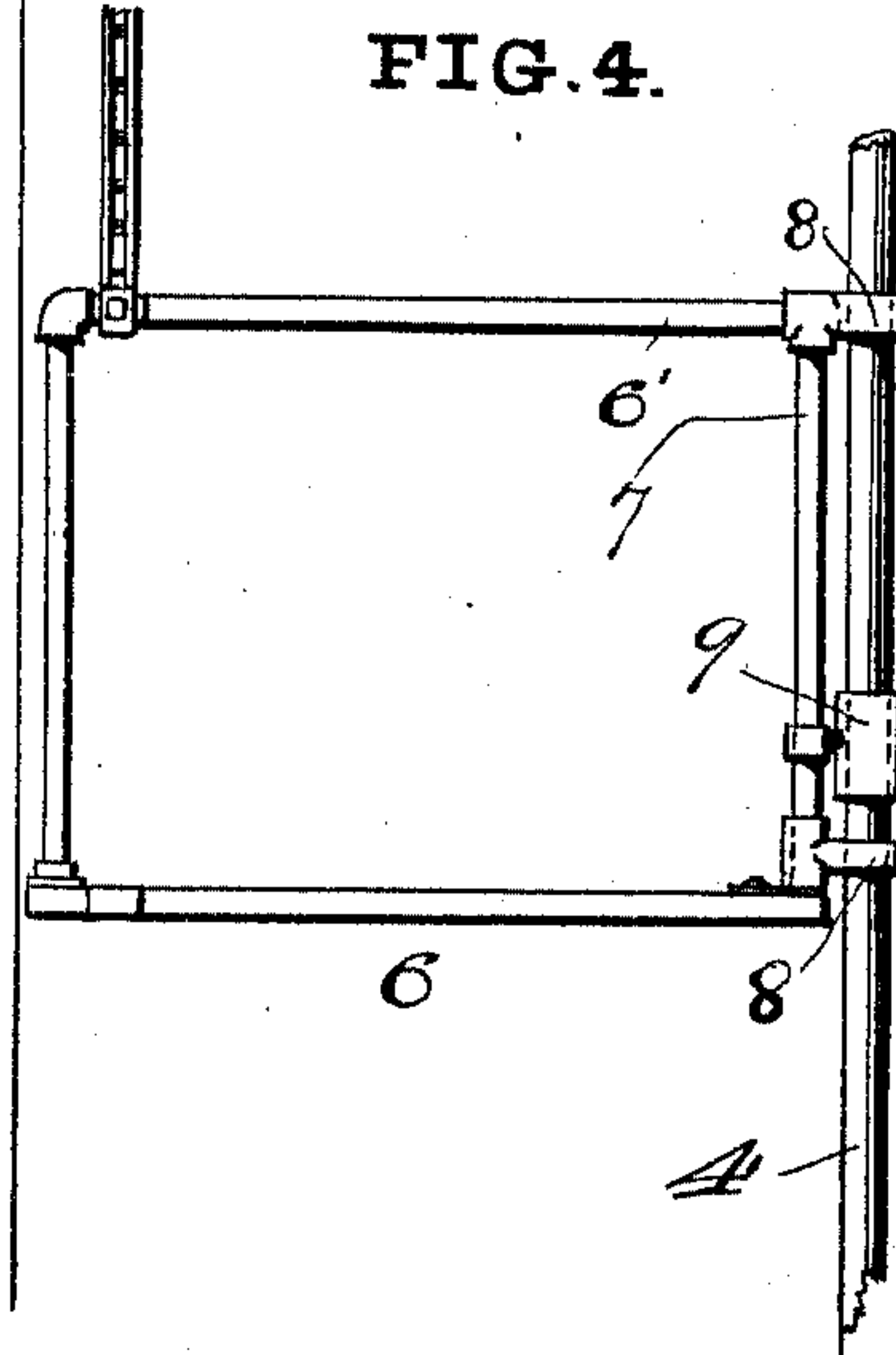
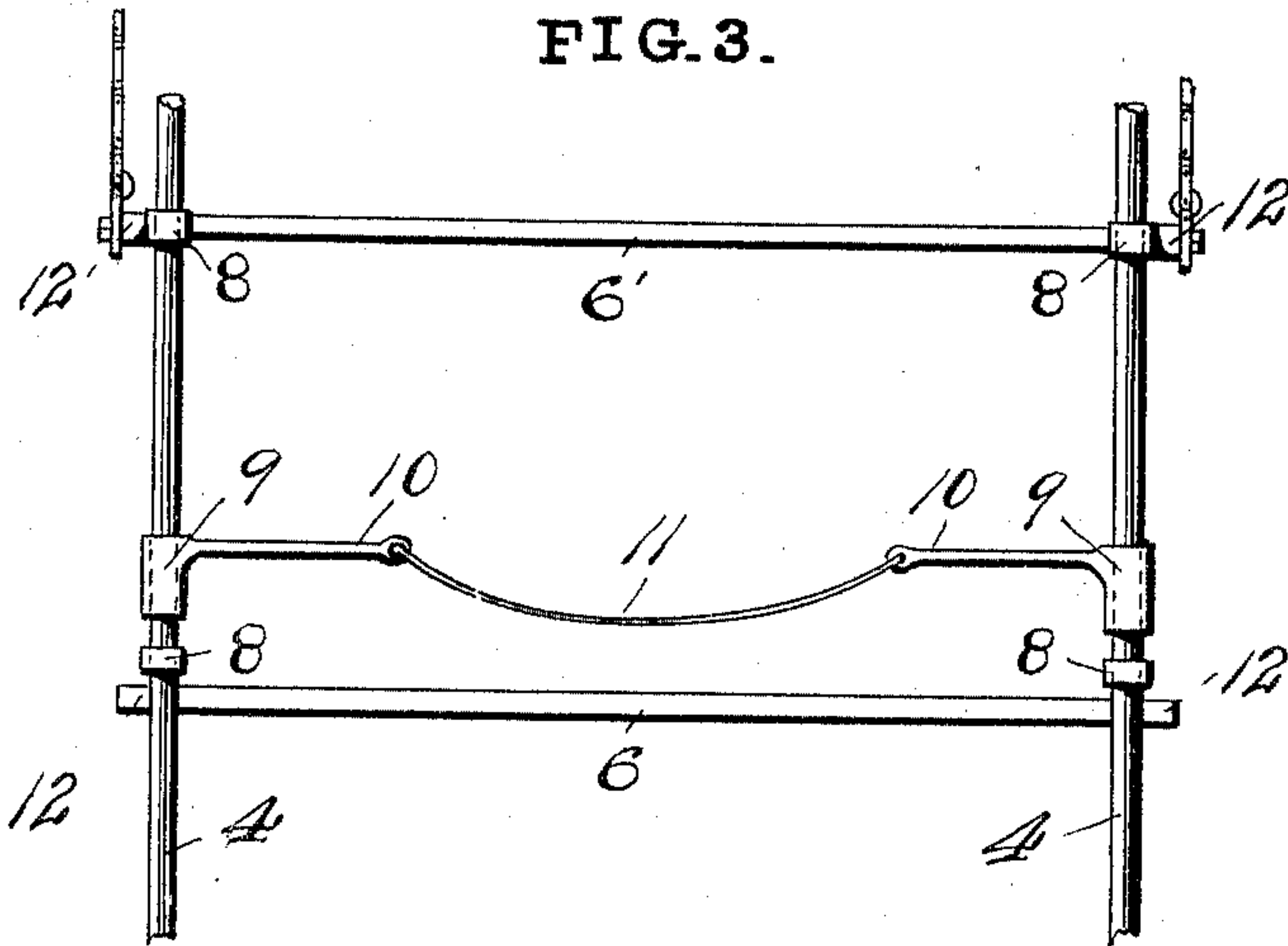
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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

MERIDITH W. MIRACLE, OF SPRINGDALE, ARKANSAS, ASSIGNOR OF ONE-HALF TO J. T. CRAIG, OF SPRINGDALE, ARKANSAS.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 776,609, dated December 6, 1904.

Application filed July 9, 1903. Serial No. 164,804. (No model.)

To all whom it may concern:

Be it known that I, MERIDITH W. MIRACLE, a citizen of the United States, residing at Springdale, in the county of Washington and State of Arkansas, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

My invention relates to improvements in fire-escapes; and one object of my invention is the provision of a fire-escape which will be under perfect control of the users and which will descend with perfect safety and which can be brought into operation instantly.

Another object of my invention is the provision of a fire-escape which can be easily applied to the structure, which will not mar or disfigure the structure, which will be compact but still have the required and desired carrying capacity, and which will be reliable in operation.

Another object of my invention is the provision of a fire-escape which can be easily controlled and which will be of simple, durable, and inexpensive construction and entirely efficient and practical in every particular.

With these objects in view my invention consists of a fire-escape embodying novel features of construction and combination of parts, substantially as disclosed herein.

Figure 1 represents a front view of a building or structure with my improved fire-escape applied in operative position thereto. Fig. 2 represents a side elevation of the fire-escape. Figs. 3 and 4 represent detail views of the car, on an enlarged scale, to clearly illustrate the construction of the car, the controlling mechanism, and connections; and Fig. 5 represents a front view of one of the air-fan drums, sprocket-wheel, and chain; and Fig. 6 represents a sectional view of one of the fan-drums, chain, sprocket, and alarm-bell.

Referring by numerals to the drawings, in which similar numerals of reference denote corresponding parts in the several views, the numeral 1 designates a house, building, or other structure having windows 2 and adjacent to which my fire-escape is placed to receive the persons to be rescued. Extending outward from the structure adjacent to and

on each side of the windows are the upper 50 brackets 3 and the lower brackets 3', to which are connected the vertical guide-rods 4, and around the lower ends of the guide-rods and resting on the lower set of brackets are the buffers or cushion-springs 5, the purpose of 55 which is to relieve the shock of the car when it descends upon said springs, as is evident.

My car is composed of the platform 6, the front and side rails forming a frame 6', and the front rails 7, which inner rails are provided with eyes 8, which fit and travel on the guide-rods 4, and I further provide my car with a controlling device or brake consisting of the pair of sleeves 9, having each an inward-extending arm 10, to the ends of which is connected the cord or chain 11, and in operation 65 as the car descends pressure upon the cord will cause the sleeves to bear or bite against the guide-rods and govern the descent of the car. Also connected with extensions 12 on 70 the car is the pair of chains 13, which chains are in the form of sprocket-chains and pass over sprocket-wheels 14, mounted on shafts 15, arranged in casings 16, and also upon said shafts are fans 17, and one of the upper 75 sprocket-wheels engages a pivoted lever 18, carrying a striker 19, which sounds the alarm-bell 20, and upon each of the chains is placed a weight 21, said weights acting as counter-balance-weights to prevent the car from fall- 80 ing and moving in casings 21^x.

It will be observed that two of the fans and sprocket-wheels are provided and that two sets of chains pass over the wheels, and in action the chains and the fans form a cushion to 85 cause the car to descend smoothly and gently, but at the proper rate of speed.

In operation the persons step into the car and the car descends with ease, and if the weight is heavy and the tendency of the car 90 is to fall it is simply necessary to apply the brake; and the frictional contact causes the car to descend at a proper speed. Also the fans and weighted chains prevent the car from falling suddenly and serve to relieve all shock, 95 and thus my fire-escape possesses every feature to commend it as useful, practical, and desirable.

I also provide the usual rope or cord 22, disposed near the car and windows and traveling over a pulley above the upper window, which cord serves to permit manual rising or
5 lowering of the car, as usual.

I claim—

In a fire-escape, the combination with the structure or building, the vertical guide-rods rigidly secured to the structure, the car or
10 platform having sleeves at its forward portion fitting and traveling on said guide-rods, extensions formed on the rear of the platform, chains rigidly secured to said extensions, the
15 guide-pulleys over which said chains travel, counterbalance-weights carried by said chains, guides and protectors for said weights, a speed-governing mechanism carried by the upper

series of pulleys, an alarm actuated by one of the upper set of pulleys, a brake mechanism adjacent to the car consisting of a pair of
20 sleeves fitting on the guide-rods and formed with inward-extending arms, a connection between said arms for bringing the sleeves into frictional contact with said guide-rods, a hand-cord connected with the structure and passing
25 near the car and suitable buffer-springs to relieve the jar of the car upon descending.

In testimony whereof I affix my signature in presence of two witnesses.

MERIDITH W. MIRACLE.

Witnesses:

H. G. HUNT,

I. M. DAVIS.