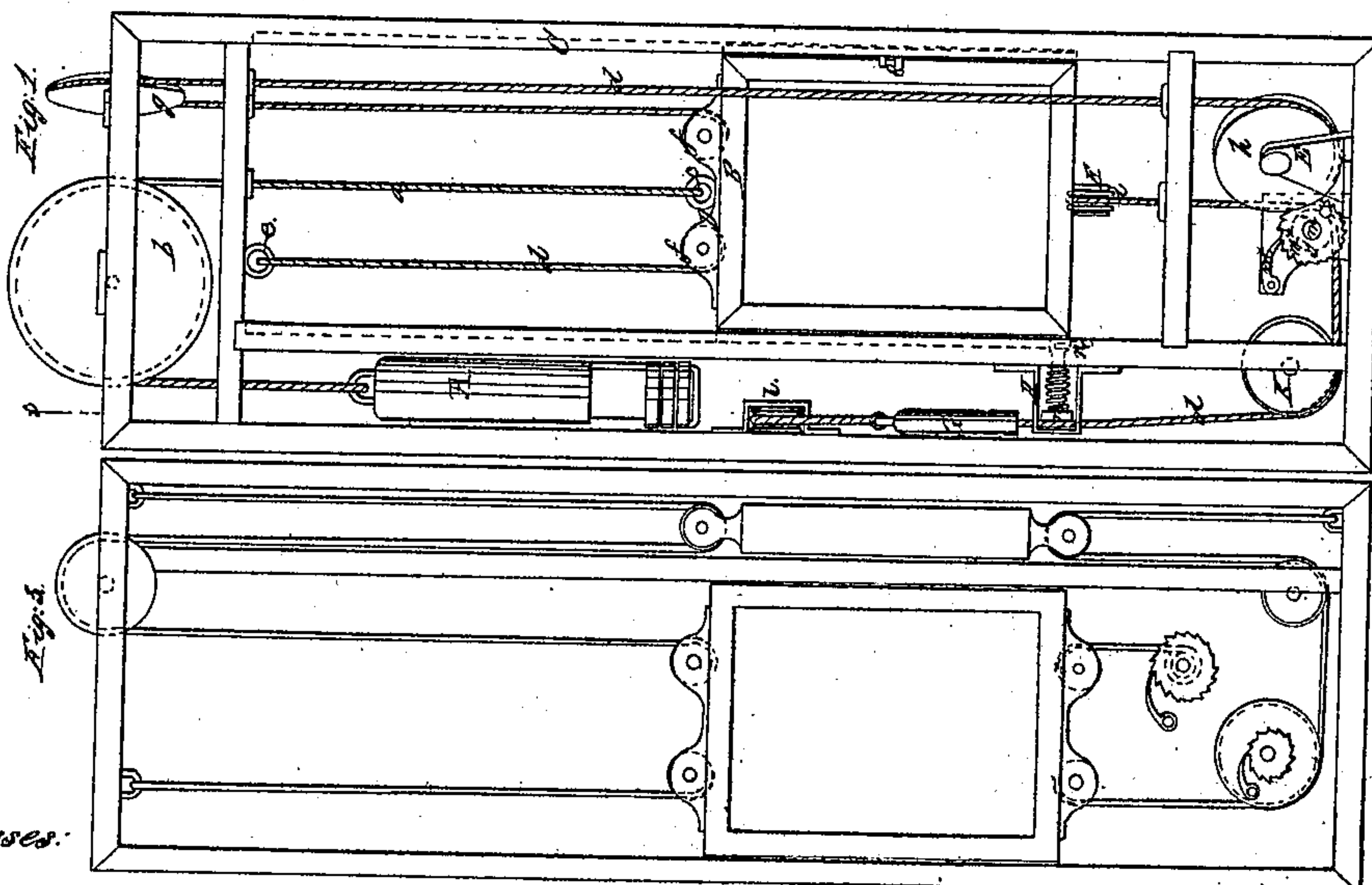
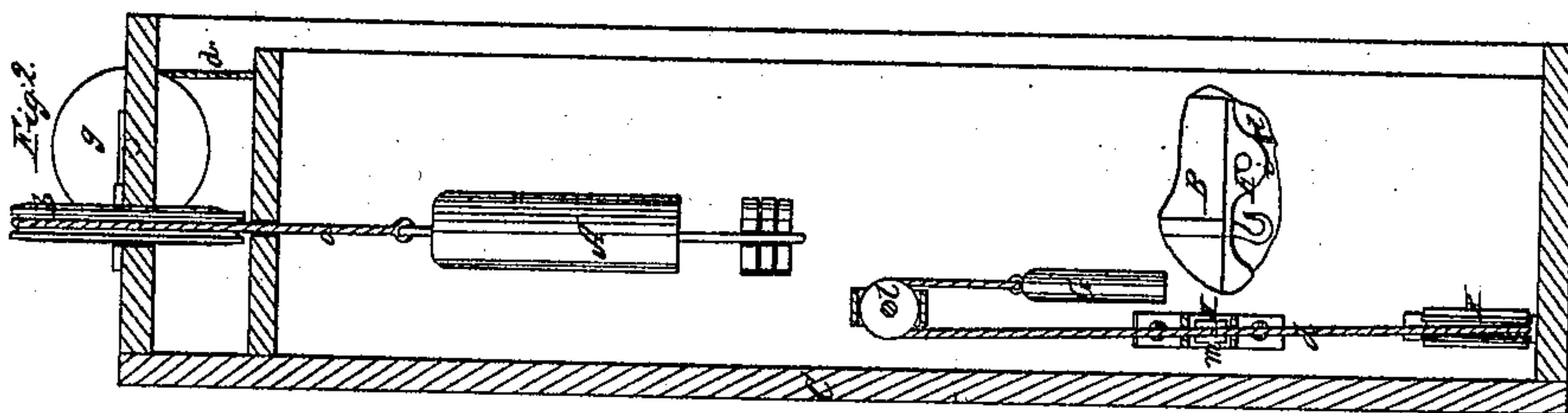
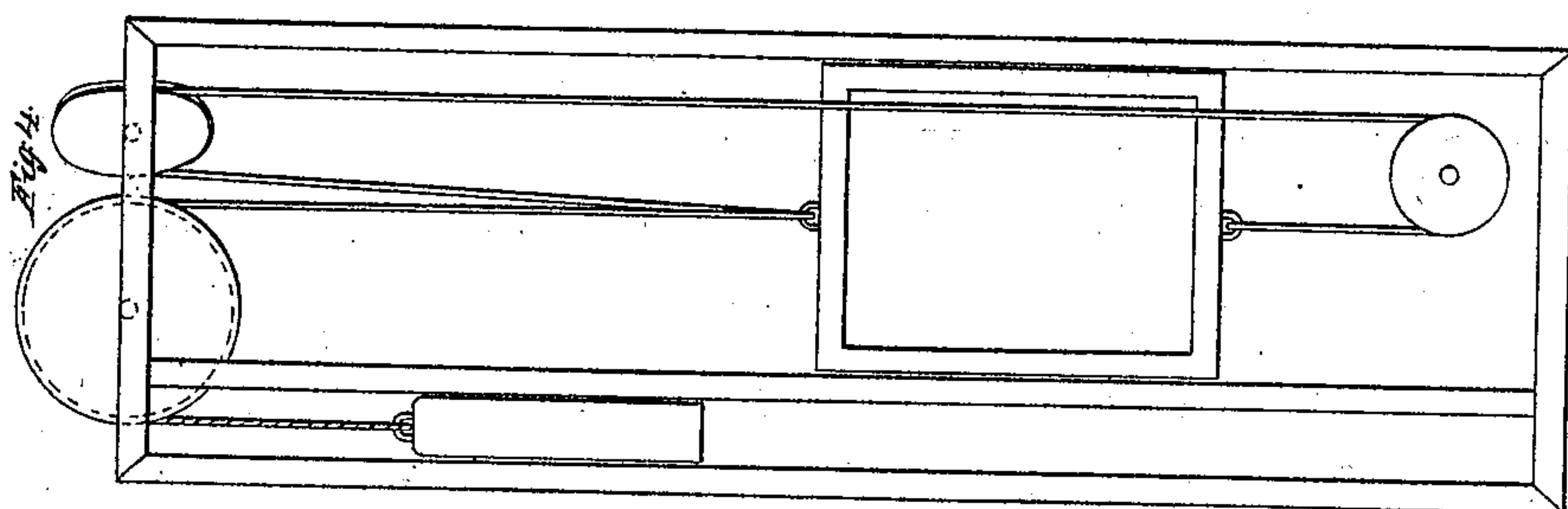


A. MURTAUGH,  
DUMB WAITER.

No. 30,831.

Patented Dec. 4, 1860.



Witnesses:

*Charles H. Lorton*  
C. H. Lorton

*Inventor*  
A. Murtaugh



# UNITED STATES PATENT OFFICE.

ANDREW MURTAUGH, OF NEW YORK, N. Y.

## DUMB-WAITER.

Specification of Letters Patent No. 30,831, dated December 4, 1860.

*To all whom it may concern:*

Be it known that I, ANDREW MURTAUGH, of the city, county, and State of New York have invented a new and Improved Dumb-  
5 Waiter; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

10 Figure 1 is a front elevation of my invention. Fig. 2 is a transverse vertical section of the same, the line  $x, x$ , Fig. 1, indicating the plane of section. Figs. 3 and 4 represent old and well known dumb waiters.

15 Similar letters of reference in both views indicate corresponding parts.

The object of this invention is to facilitate the raising and lowering of the dumb-waiter and to lessen the danger arising from  
20 a breakage of the rope, from which the dumb-waiter is suspended.

To accomplish this object I have attached the weight A, which balances the dumb-waiter B to one end of a rope  $a$ , which  
25 passes over a pulley  $b$ , having its other end secured to a loop  $c$  on the top of the dumb waiter.

The cord  $d$  which serves to raise and to lower the dumb waiter, has one of its ends  
30 attached to a loop  $e$  in the top of the framing C' and it passes through under two pulleys  $f$ , which have their bearings in a standard D that is firmly secured to the top of the dumb waiter. From these pulleys  
35 the cord  $d$  passes over a pulley  $g$  in the top of the framing, thence down through the entire height of the framing to a pulley  $h$ , which has its bearings in a standard E, that is secured to the bottom of the framing.  
40 From this pulley the cord passes over two pulleys  $i$  which run in a standard F, that is firmly secured to the bottom of the dumb waiter and from these pulleys down to a guide pulley  $j$ , and around a pulley  $k$  up to  
45 and over a pulley  $l$  and a weight G is suspended from the lower end of the cord  $d$ . By this arrangement of the cord  $d$  the purchase is doubled, one half of the weight of the dumb-waiter being supported by that  
50 portion of the cord  $d$  between the loop  $e$  and the pulleys  $f$ , and with my arrangement the same power will raise twice the weight which it will raise with ordinary dumb waiters which have the end of the cord  $d$   
55 secured directly to the top and bottom of the waiter.

The standards D and F, which carry the pulleys  $f$  and  $i$  on the top and on the bottom of the dumb waiter, are placed in a position at right angles to each other, the standard D  
60 being secured to the top of the dumb waiter in a longitudinal direction and the standard F to the bottom of the dumb waiter in a transverse direction, as plainly shown in Fig. 1, of the drawing. By these means I  
65 prevent the dumb waiter canting over and binding in the framing which it inevitably does, if the standards D and F are secured to its top and bottom, in the same direction and if a load is placed on one side or on the  
70 other of the dumb waiter. With my arrangement of the standards D and F or of the pulleys  $f$  and  $i$ , the dumb waiter works up and down between the framing with equal facility whether the load be placed on  
75 one side of the same or in its center, provided the cord  $d$  is kept taut. Furthermore by placing the pulleys  $i$  in the position shown in the drawing, that portion of the cord  $d$  between said pulleys and the pulley  $h$   
80 which serves to lower the waiter is brought nearer to the operator than it is, if the end of the cord is secured to the center of the waiter. The operation of the waiter is thereby facilitated and if the rope breaks,  
85 and the waiter comes down suddenly, it is less liable to injure the operator.

The weight G, which is suspended from the end of the cord  $d$ , is sufficiently heavy to keep said cord taut under all circumstances,  
90 and in order to take off the strain, from the cord, I pass the same through a standard H, between which a spring dog  $m$  is arranged in such a position that the cord is firmly clamped between the face of the dog  $m$  and  
95 inner surface of the standard H. The spring dog  $m$  is drawn back by a ring  $n$  which, when not used is concealed in a cavity in the side of the framing C. If the cord  $d$  becomes slack from a change in the weather  
100 or from some other cause, the spring dog  $m$  is pulled back so as to release the cord and to allow the weight G to exert a strain on said cord, and to pull it tight. By these means the desired strain on the cord is pro-  
105 duced without the least exertion of the operator and as soon as the required tightness is obtained, the cord is locked up again between the spring dog  $m$  and the inner surface of the standard H thereby keeping the rope  
110 taut without exposing it to a continuous strain from the weight G.



Instead of the weight *G* and spring dog *m* a tightening arbor *m'* may be used for tightening the cord, and in this case the end of the cord is fastened to said arbor and the  
 5 arbor is turned by means of a suitable handle and kept from turning back by a ratchet wheel *m''* and pawl *m\**. This tightening arbor is preferable when the cord is short and the dumb waiter has to travel through  
 10 one or two stories only, but if the cord *d* is long, the spring dog *m* and weight *G* may be used with advantage.

By securing the cord *d* round a hook *o* on the side of the framing the dumb waiter  
 15 can be retained in any desired position or in any story where it may be needed.

From this description it will be seen that my present invention consists simply in a combination of the dumb waiter, for which  
 20 a patent has been granted to me April 3, 1855, and which is represented in Fig. 3, and of a dumb waiter such as represented in Fig. 4, which has been known for a long time. Those parts which I claim as my invention,  
 25 are tinted blue, and by referring to said figures, the difference between my present in-

vention and the old dumb waiters and the advantages derived from my new arrangement will be easily understood.

Having thus fully described my invention, 30 what I claim as new and desire to secure by Letters Patent is—

1. The arrangement of the rope *a* and cord *d* in combination with the dumb waiter *B* and tightening arbor *m'*, constructed and  
 35 operating as and for the purpose described.

2. The arrangement of the spring dog *m* to operate in combination with the weight *G* and cord *d* substantially in the manner and  
 40 for the purpose described.

3. The arrangement of two or more pulleys *f* on the top and two or more pulleys *i* on the bottom of the dumb waiter *B*, said pulleys being placed in a position at right  
 45 angles to each other in the manner described, to operate in combination with the cord *d* and rope *a* substantially as and for the purpose specified.

ANDREW MURTAUGH.

Witnesses:

M. M. CROMPTON,  
 C. W. COWTAN.