

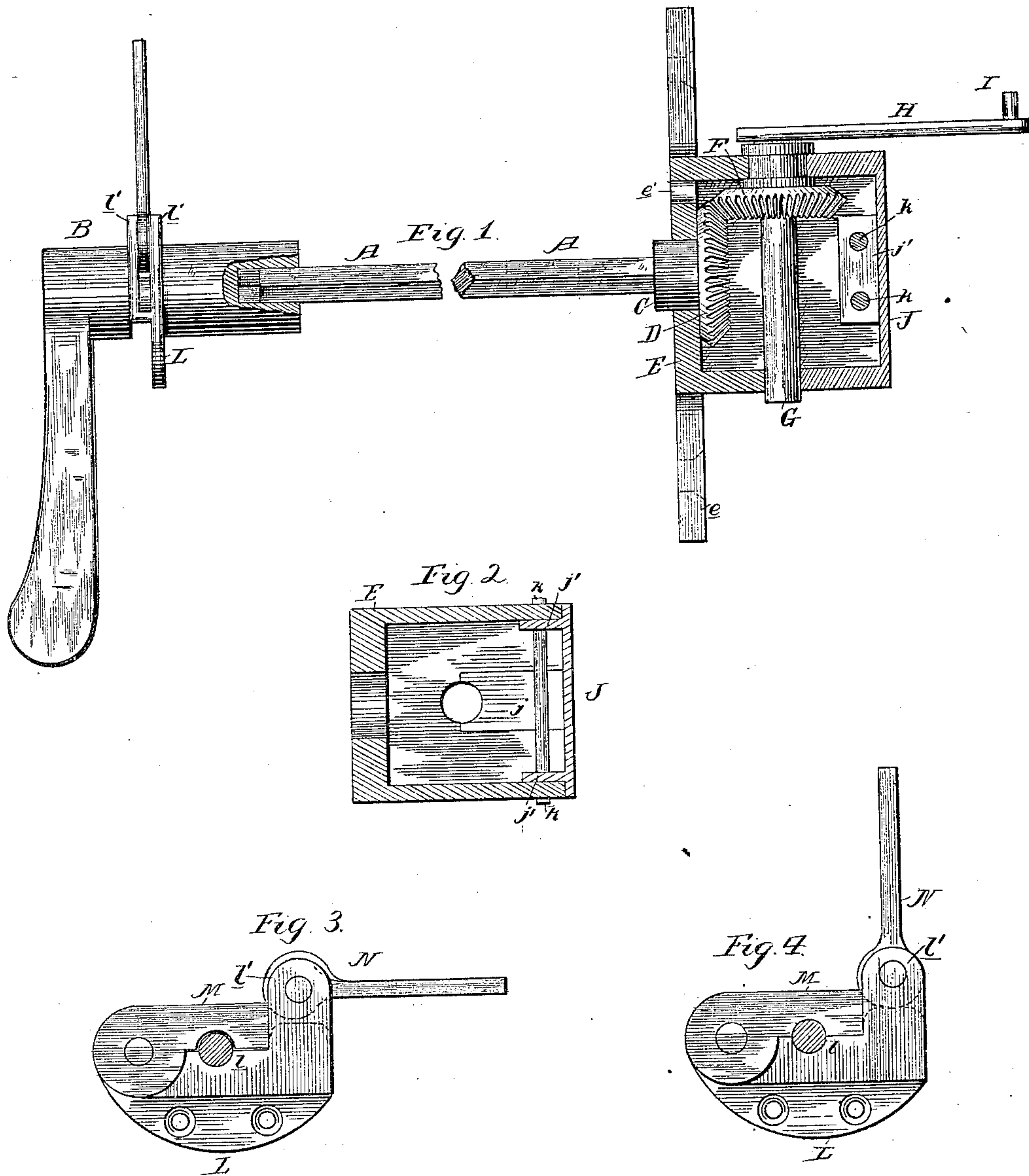
(No Model.)

R. G. DUDLEY.

SHUTTER WORKER.

No. 318,421.

Patented May 19, 1885.



WITNESSES

WITNESSES  
Will T. Robertson  
E. A. Bond.

INVENTOR

Russell G. Dudley.  
By his Attorney  
J. W. Robertson



# UNITED STATES PATENT OFFICE.

RUSSELL G. DUDLEY, OF JERSEY CITY, N. J., ASSIGNOR TO THE DUDLEY SHUTTER WORKER AND BURGLAR ALARM COMPANY OF NEW YORK.

## SHUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 318,421, dated May 19, 1885.

Application filed February 28, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, RUSSELL G. DUDLEY, a citizen of the United States of America, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Shutter-Operators, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to that class of shutter-operators in which the turning of a handle inside the house operates two bevel-gears, one of which is on a shaft that carries an arm connected to the shutter to be operated on; and the invention consists in the  
15 peculiar combinations and the construction and arrangement of parts hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents a side elevation with the casing broken away to show the interior construction. Fig. 2 is a horizontal central section of the case. Figs. 3 and 4 are elevations of the locking device in two positions.

25 Referring now to the details of the drawings, A represents a spindle, preferably square in cross-section, provided with a handle, B, at one end, having a correspondingly-shaped orifice, and having its other end fitted  
30 to a similar orifice in the hub C of a bevel-wheel, D, having its bearing in a casing, E, and meshing with another bevel-wheel, F, on an upright shaft, G, journaled in bearings formed in the casing E, and carrying  
35 an arm, H, having a pin, I, with which connections may be made with the shutter in any manner desired.

The casing consists of a box-like main part, E, provided with ears *e*, having holes (shown  
40 in dotted lines) for securing it to the window, and provided with a cap, J, having extensions *j* (at top and bottom) fitting into recesses or deep notches formed in the top and bottom of the casing, and ears *j'*, by means of  
45 which the cap and casing are joined together by pins *k k*, which pass through from side to side of the casing, and are riveted therein or otherwise secured. I have shown two pins *k*, but it is evident that only one could be used,  
50 if preferred.

The casing E has one half of the bearing for the shaft G formed in it, and the other half is formed by the extensions *j*, so that when the cap is fastened to the casing the shaft G is securely fastened in its place.

55 At *e'* is shown a slot through which the gears can be seen, so that it can be readily discovered whether the gears are properly fitted together when the parts are "assembled." This hole being at the back of the casing is closed by the wood-work of the window-frame when the casing is in use, and as  
60 the outer part of the casing is closely stopped there is no danger of the operating parts being frozen together by water getting to the gears and freezing them fast to each other.  
65 This construction of the casing not only admits of keeping out the water, &c., but admits of the ready assembling of the parts, as it is only necessary to set the hub of the  
70 wheel D into the hole made therefor in the casing, then drop the shaft G in its place, set on the cap J, and fasten the whole together by the insertion of a pin, *k*, or pins *k k*, as the case may be. It will thus be seen that the  
75 wheel F holds the wheel D in place, and that the shaft G is held in place by the cap. Near the handle is shown a combined escutcheon and lock consisting of the plate L, having a fixed clamping-jaw, *l*, a moving clamping-  
80 jaw, M, pivoted to the plate, and an eccentric lever, N, pivoted between ears *l'* on the plate L. This clamp surrounds the spindle between the handle B and a collar, O, on said spindle, by means of which the latter is firmly  
85 secured in place when the plate is secured to the window-casing.

When the shutter-operator is in use, it is only necessary to turn the handle to adjust the shutter in any desired position, and then  
90 by turning the eccentric lever N the clamping-jaw M is pressed down fast on the spindle, holding the latter fast, and thus securely fastening the shutter in any desired position.

95 It will thus be seen that by this construction and arrangement of parts a cheap yet strong shutter-operator is made, that will neither get out of order nor be frozen fast, and one with which the shutter can be readily ad-  
100

justed to any desired position from wide open to close shut, and then locked fast in such position.

What I claim as new is—

5 1. In a shutter-worker, the casing E and the bevel-gear D, having a hub fitting into a bearing on one side of said casing only, and held in position by the bevel-gear F, in combination with the vertical shaft G, carrying said  
10 bevel-gear F, and the arm H, for operating the shutter, substantially as described.

2. The combination, with the spindle of a shutter-operator, of the pivoted jaws I M  
15 and the eccentric lever N, substantially as described.

3. In a shutter-worker, the casing E and the bevel-gear D, having a hub provided with a polygonal recess, and fitting into a bearing in one side of the casing, in combination with a handle, B, also provided with a polygonal recess, and the bar A, having its ends loosely fitting said hub and handle, substantially as set forth. 20

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

RUSSELL G. DUDLEY.

Witnesses:

CLIFFORD S. KEMPTON,  
EDWIN L. HUNT.