

(No Model.)

J. J. DONAHOE & P. J. FINN.

WINDOW SHUTTER OPENER.

No. 270,027.

Patented Jan. 2, 1883.

Fig 1,

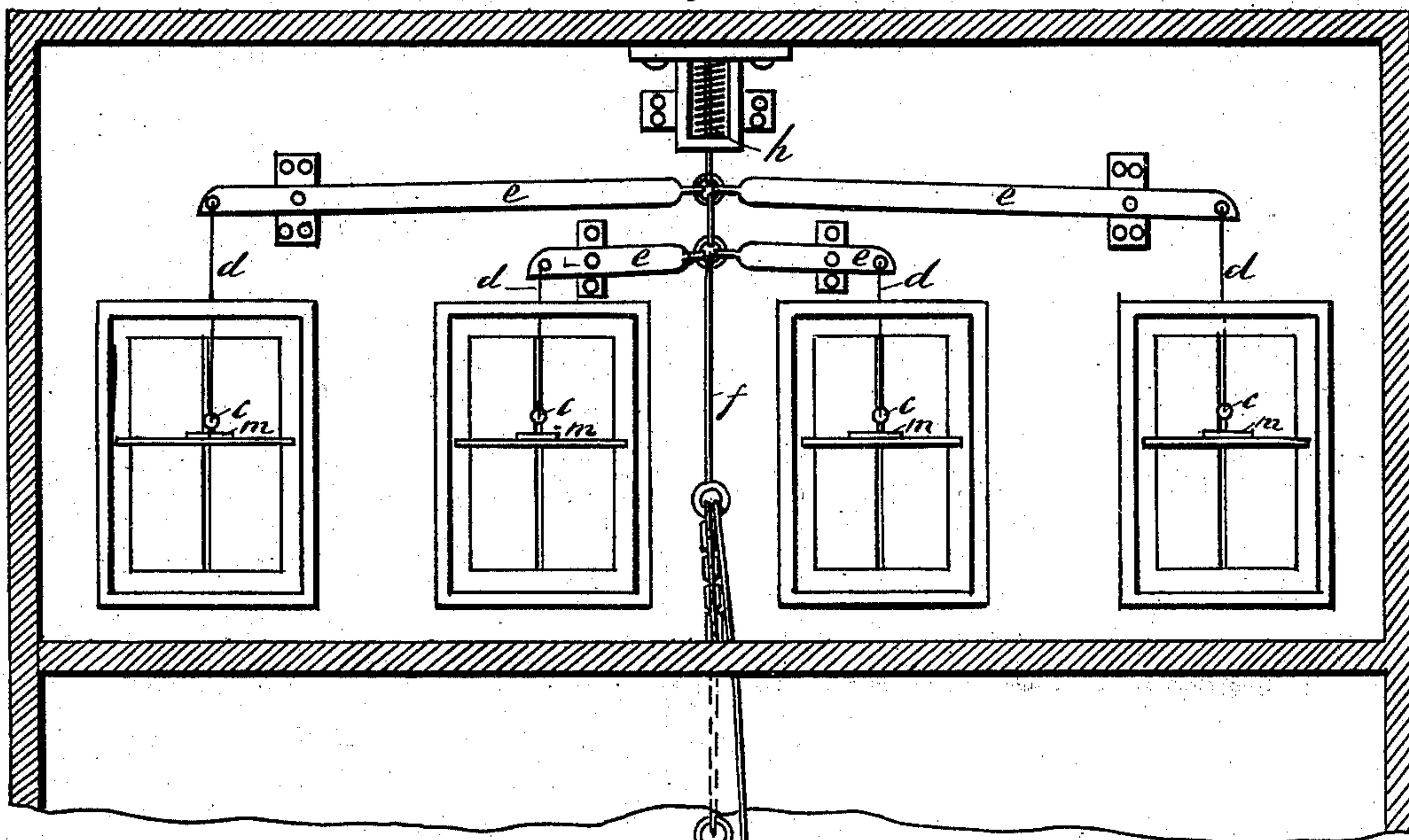


Fig 2,

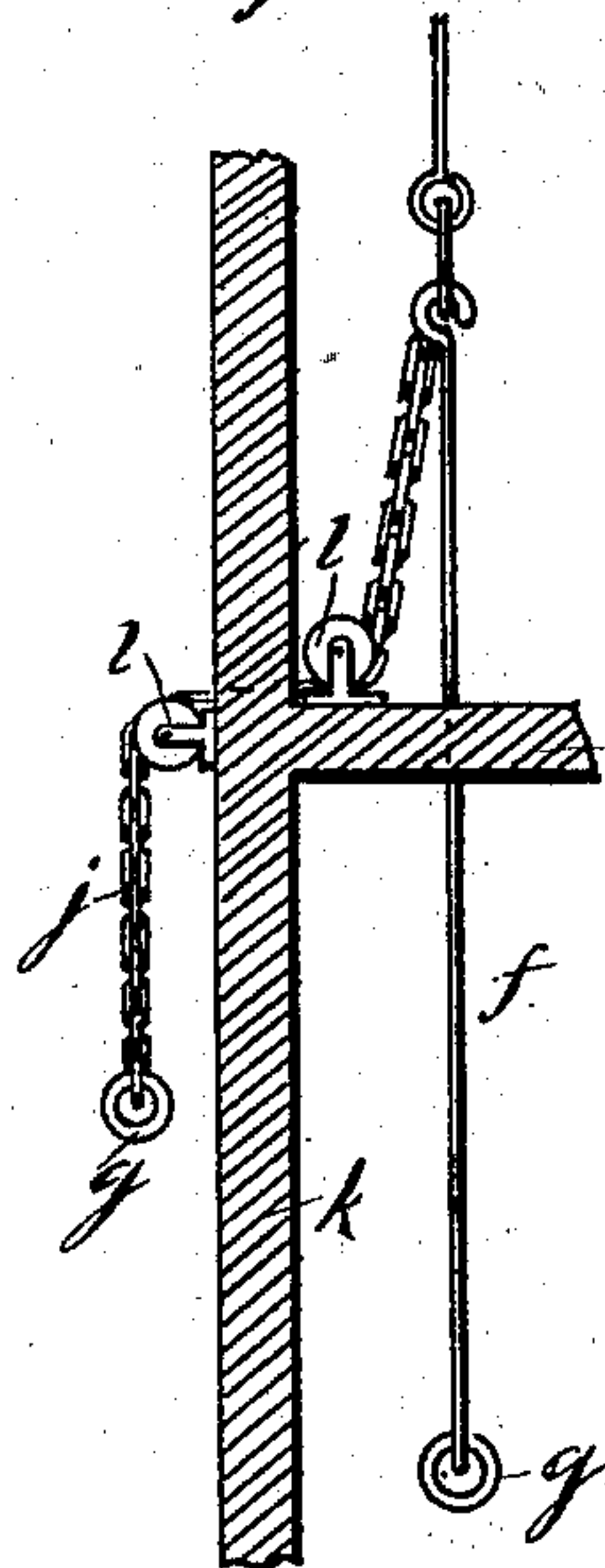


Fig 3,

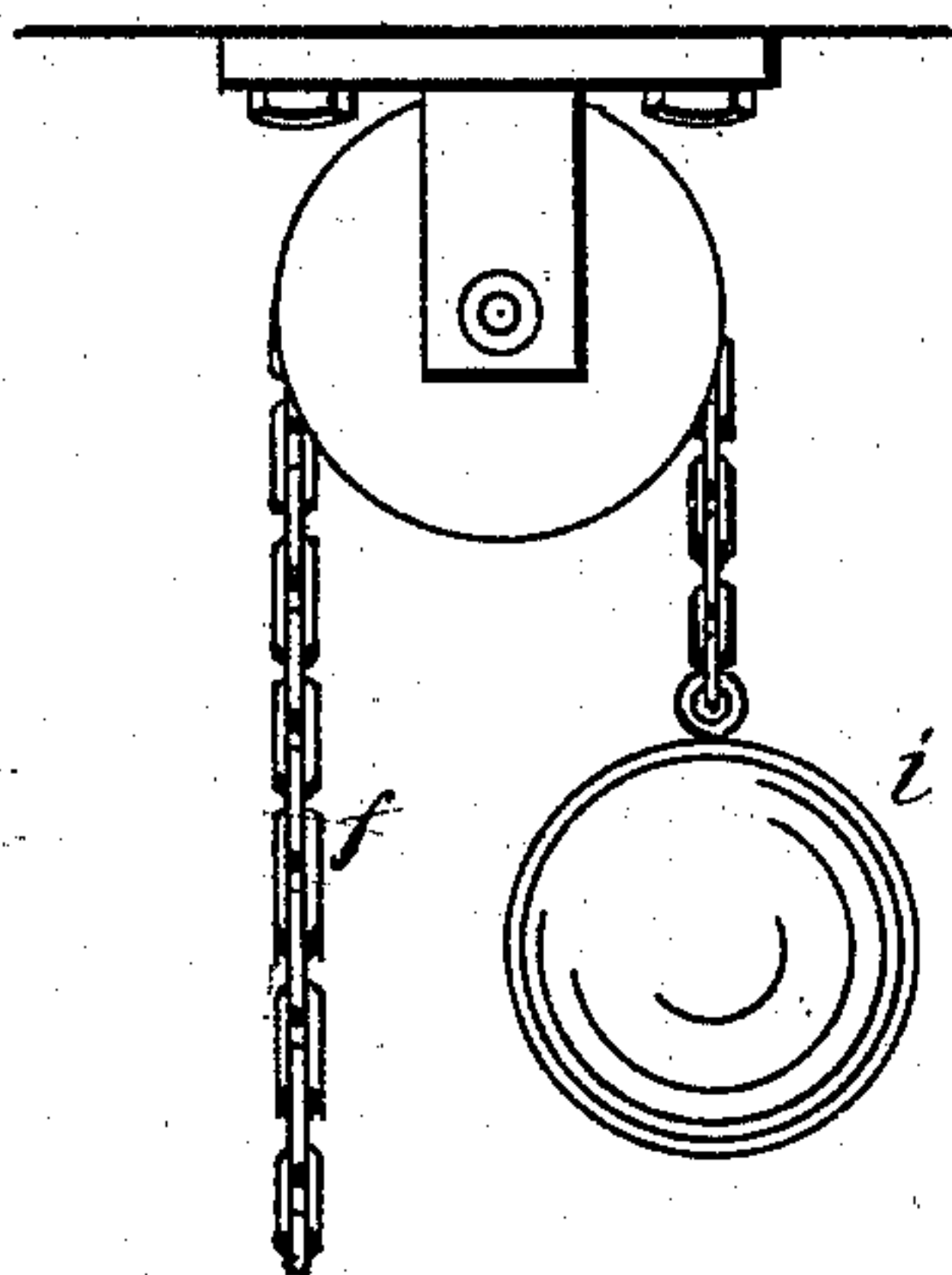


Fig 4,

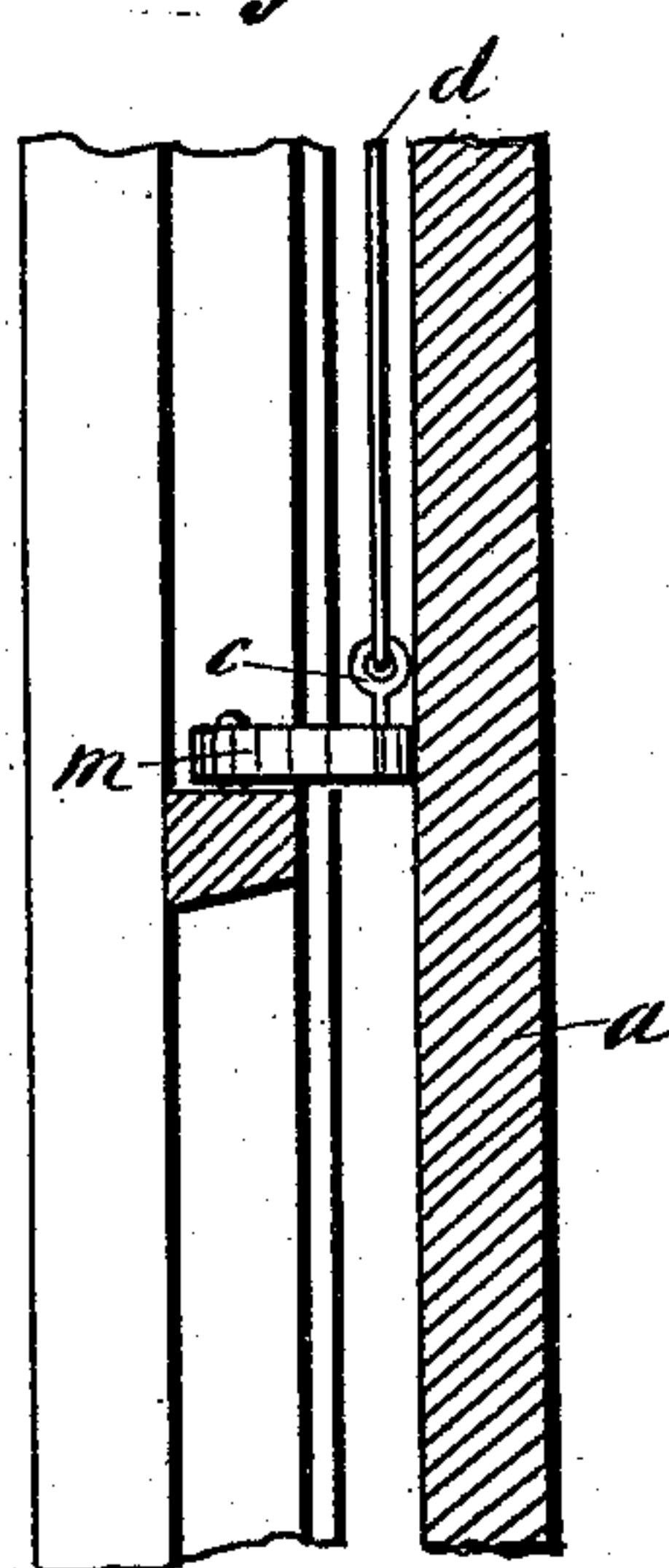
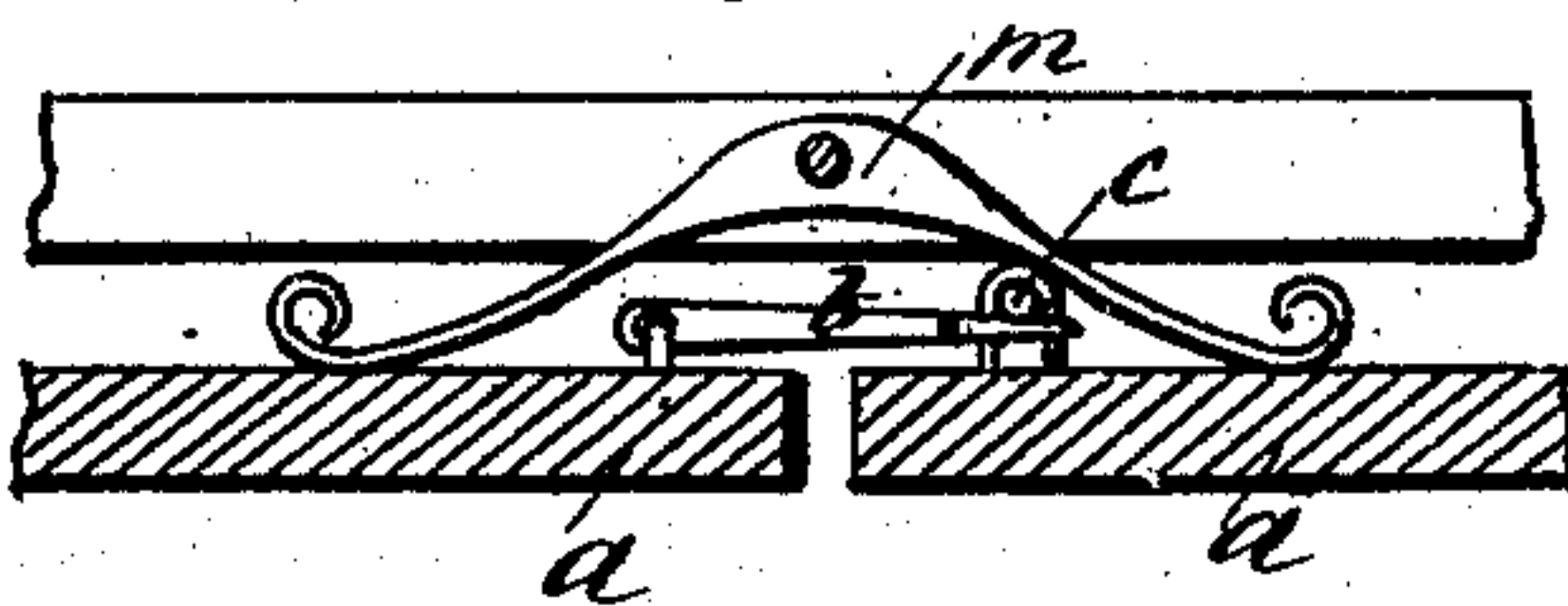


Fig 5,



WITNESSES:

Chas. T. Howell
C. Sedgwick

INVENTOR:

J. J. Donahoe
P. J. Finn
Munn & Co

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN J. DONAHOE AND PETER J. FINN, OF NEW ORLEANS, LOUISIANA.

WINDOW-SHUTTER OPENER.

SPECIFICATION forming part of Letters Patent No. 270,027, dated January 2, 1883.

Application filed September 6, 1882. (No model.)

To all whom it may concern:

Be it known that we, JOHN J. DONAHOE and PETER J. FINN, both of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Shutter-Opener, of which the following is a full, clear, and exact description.

The object of the invention is to provide means whereby the pins which fasten shutters may be drawn out and the shutters thrown open by springs, as hereinafter described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a building, showing the arrangement of our improved apparatus. Fig. 2 is a section through the wall, showing the connection of the pull devices for being actuated from either outside or inside of the wall. Fig. 3 is a detail of a weight contrivance, that may be employed instead of the spring represented in Figs. 4 and 5, to hold the fastening devices in position when the shutters are closed. Fig. 4 is a vertical section of a window and shutters; and Fig. 5 is a horizontal section of a pair of shutters, showing the fastening and opening devices.

The shutters *a* are to be fastened, when shut, by a hasp, *b*, and pin *c*, or any equivalent device. The pin of each fastening is suspended by a rod, *d*, from a lever, *e*, and the several levers are connected to a pull rod, cord, or chain, *f*, extending down to a place within convenient reach of the ground, where a ring or other suitable handle, *g*, is attached for pulling the levers to disconnect the fastenings. Besides being connected to the levers, the pull-

cord *f* is attached to a spring, *h*, or weight *i*, at its upper end to hold it up and prevent its weight from tripping the fastenings. When it is desirable to extend a branch, *j*, of the pull device through the wall *k* of the building to the outside a chain will preferably be used, with guide-pulleys *l* for it to work on. The shutters are to be provided with springs *m*, or equivalent means, to throw them open instantly when the fastening-pins *c* are detached.

By the use of suitable guide-pulleys or bell-cranks the pull rods or cords may be extended from all sides of a building to one connection, by which all the shutters of a building may be opened at once, whereby labor and time will be saved in opening them daily, and in cases of fires lives and property may sometimes be saved thereby.

We may substitute chains and pulleys for the levers *e*, and in case of need the pull-rings *g* may be connected to levers, where a large number of fastenings are connected to one pull rod or chain. We propose in practice to make the connections so that one shutter of each story may be opened without opening the rest.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, with shutters opened by a spring, and provided with the fastening *b c*, of rods *d*, levers *e*, and a pull rod or cord, *f*, connected with a spring or weight at its upper end, as and for the purpose specified.

JOHN JOSEPH DONAHOE.

PETER JOSEPH FINN.

Witnesses:

CHAS. L. UHLHORN,
THOS. J. KEANE.