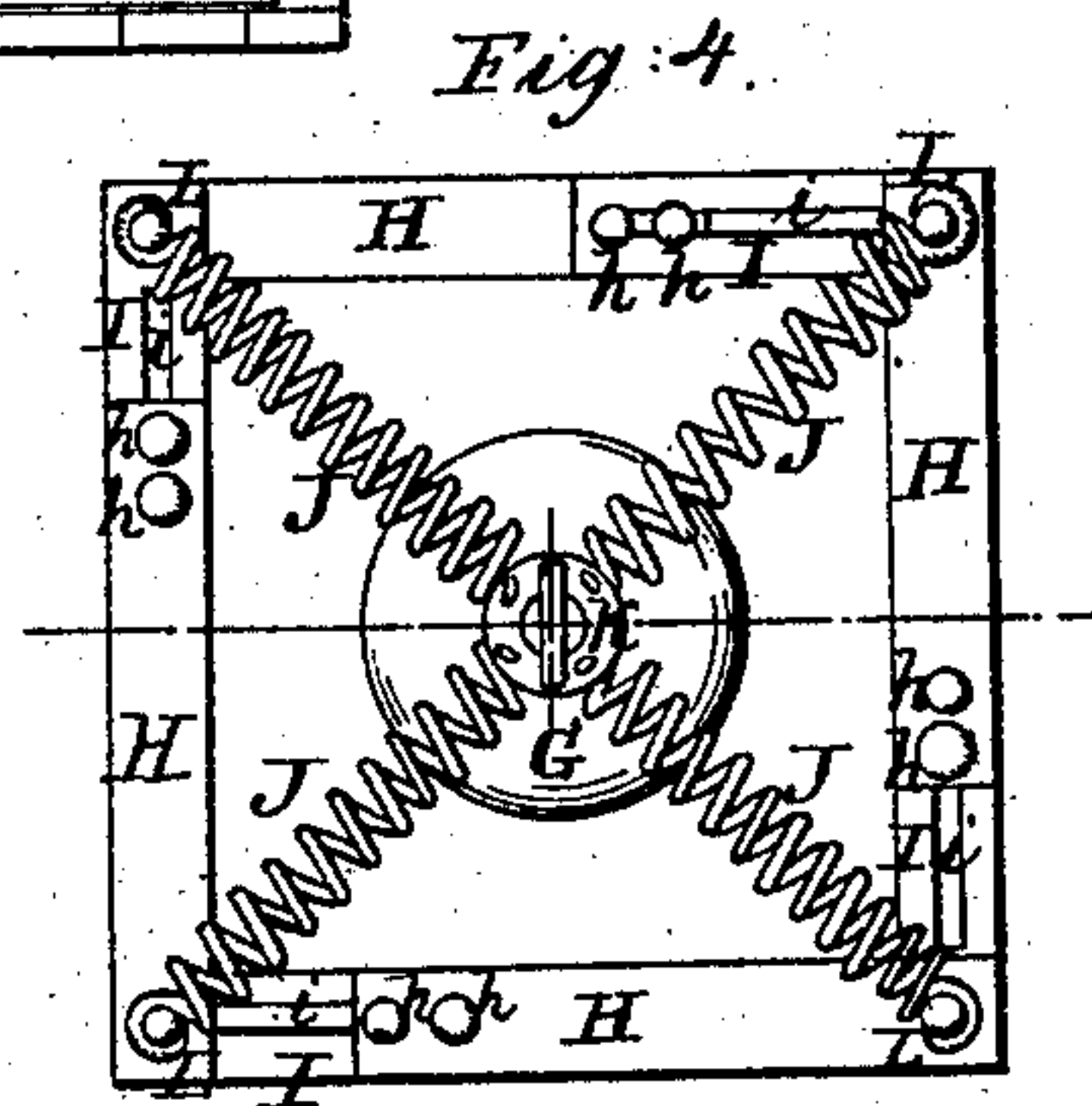
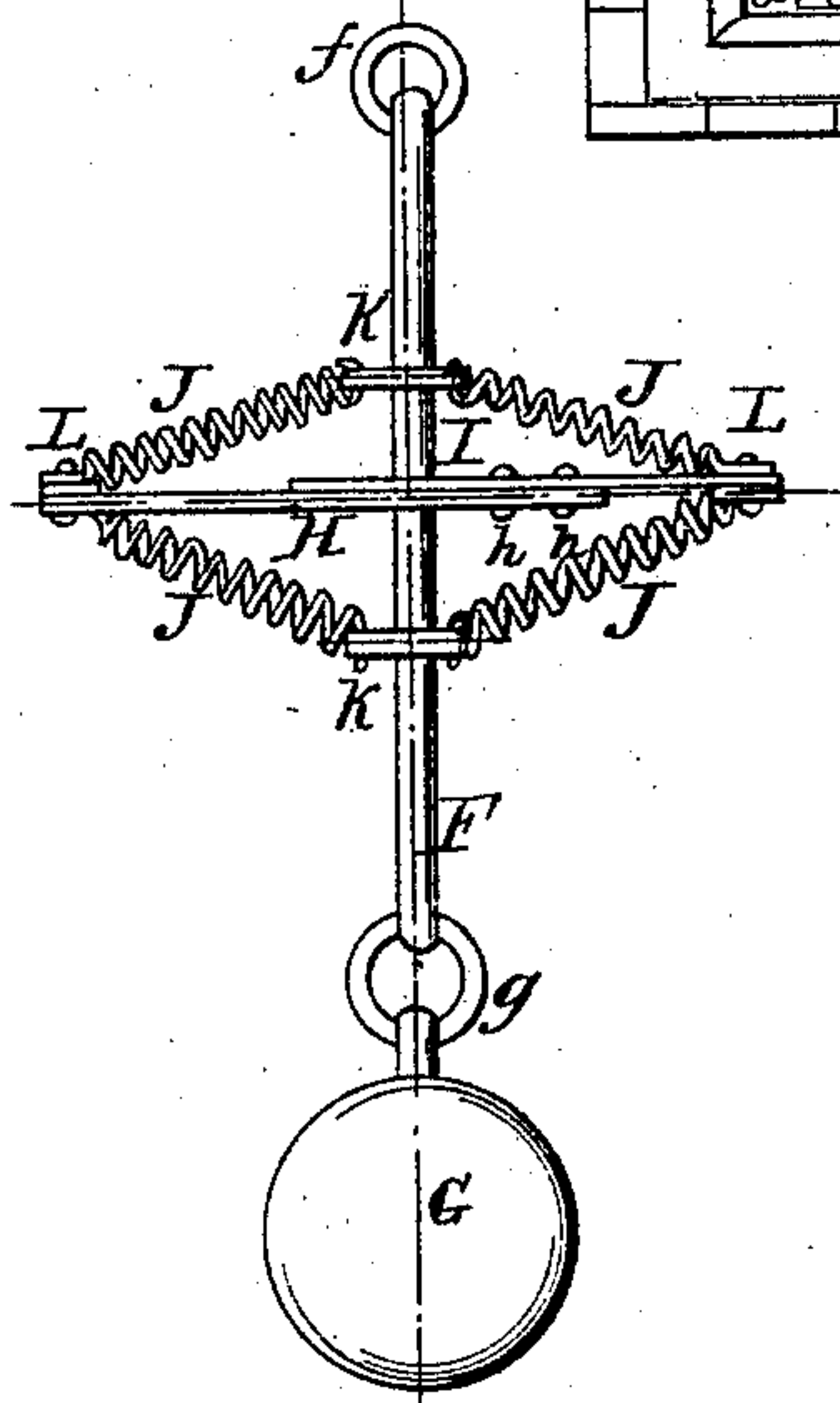
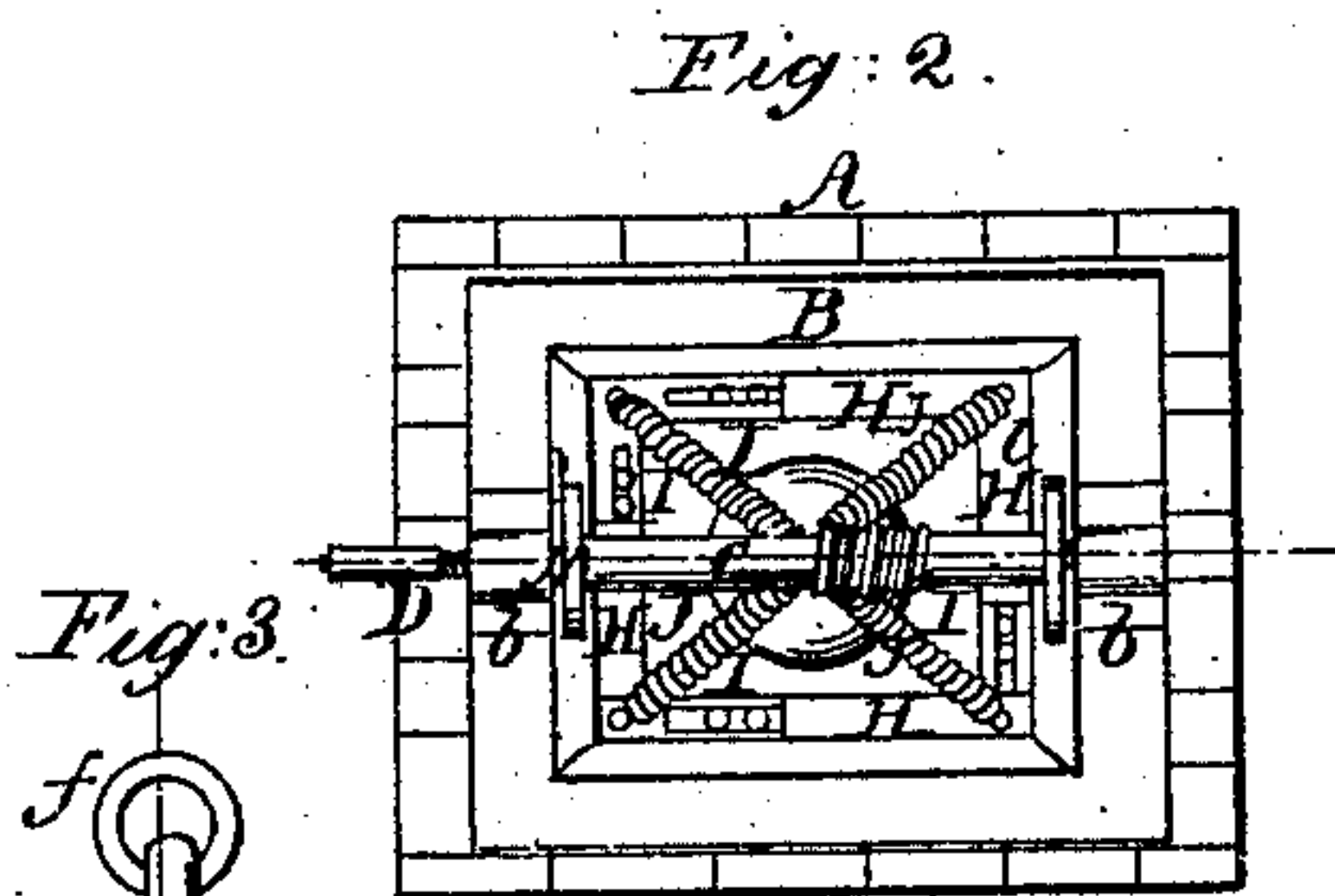
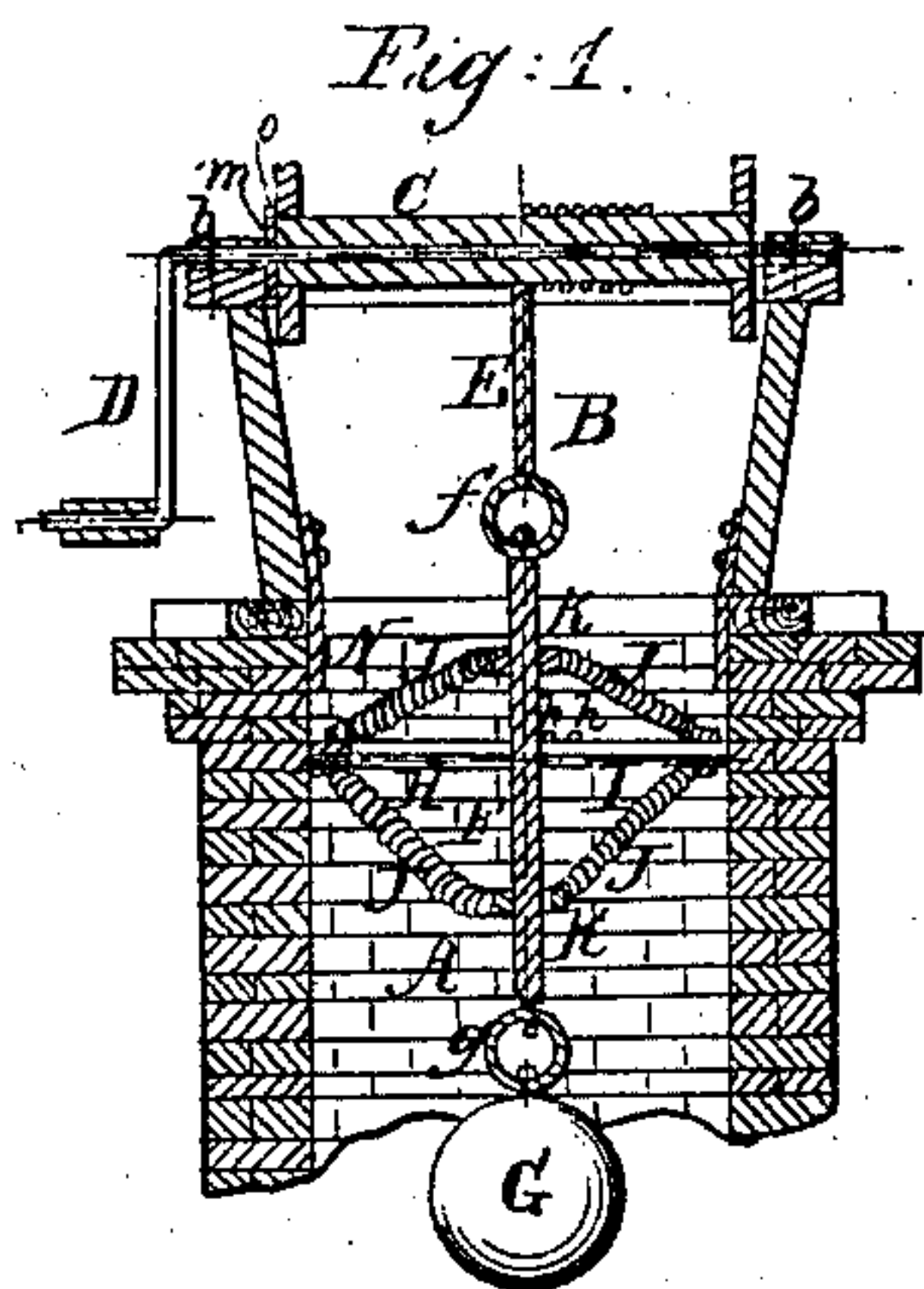


S. K. LUCE.  
CHIMNEY SCRAPER.

No. 82,136.

Patented Sept. 15, 1868.



Witnesses;  
Ruth H. Abbott.  
Ed A. Deebout

Inventor;  
Shubael K. Luce  
Per Job Abbott Atty

# UNITED STATES PATENT OFFICE.

SHUBAEL K. LUCE, OF MARION, MASSACHUSETTS, ASSIGNOR TO HIMSELF  
AND CHARLES O. LUCE, OF SAME PLACE.

## CHIMNEY-SCRAPER.

Specification forming part of Letters Patent No. 82,136, dated September 15, 1868.

*To all whom it may concern:*

Be it known that I, SHUBAEL K. LUCE, of Marion, in the county of Plymouth and State of Massachusetts, have invented a new and useful Chimney-Scraper; and I do hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon, of which drawings—

Figure 1 is a sectional elevation, showing my chimney-scraper in operation on a chimney. Fig. 2 is a plan of the same. Fig. 3 is a side view of my chimney-scraper. Fig. 4 is a plan of the same.

The nature of my invention consists in the novel construction of what I term a "chimney-scraper," which is arranged, in connection with a windlass, on the top of the chimney, so as to be drawn up or let down said chimney, and scrape the soot from the inside of the chimney, the peculiar construction of the said scraper allowing it to expand and contract to suit the size of the chimney.

The peculiar utility of my invention consists in the freeing of the chimney from soot, without the danger from fire which is attendant upon the burning out of said soot, or without that danger to life and limb which is constantly threatening the chimney-sweeps of the cities.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

F is the main center-rod of my scraper, and has on it the two collars K K and the rings *f g* at the ends, the upper ring *f* having the rope E attached to it, by which the scraper is suspended, and the lower ring *g* has the weight G attached to it, by which the scraper is drawn down the chimney.

The rim or scraper proper is composed of eight pieces of sheet metal, H H I I, each piece I being made with a slot, *i*, and united to a piece, H, by screws *h h*, which are secured in the piece H, and slide in the slots *i i*. The pieces H I are united at the corners by bolts L L, as shown, and to these bolts are

attached the springs J J, which are also secured to the collars K K on the main rod F.

It is readily seen that this arrangement allows of a contraction and expansion of the rim H I to suit the size of the chimney, and that the springs J J will keep said rim expanded, so as to conform to the shape of the chimney.

The operation of my scraper is readily seen. A windlass, B, consisting of the frame B, which has the roller C hung in boxes *b b* on its sides, is placed on the top of the chimney A, where it is secured from sliding off by the irons N N, which are attached to the inside of the frame B, and bear on the inside of the chimney A. A rope, E, is rolled on the roller C, and is attached to the scraper F H I, as before shown; and by means of the crank D the scraper is lowered or raised in the chimney, which will be cleared or scraped free from soot by the rim H H I I of the scraper, which is pressed up to the inside face of the chimney by the springs J J, as shown. A ratchet, M, is placed on the axle C and pawl Q on the frame B, by means of which the scraper F H I is suspended in any desired position. When the chimney is freed from soot, the scraper F H I is drawn up to the roller C, and the windlass and scraper are taken off the chimney, being only on the chimney when it is to be cleaned.

It is readily seen that other forms of springs might be used in place of the spiral springs J J, as shown, which would accomplish the same purpose, viz., that of keeping the rim H I expanded to the size and shape of the inside of the chimney A; and, also, that brushes or strips of leather or india-rubber might be attached to the faces of the rim-pieces H I, which should brush the inside of the chimney, instead of scraping it, as here described, the general mechanical construction and action of the scraper remaining the same as here shown.

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

A scraper composed of the bars I I I I,



with slots *i i i i*, the bars *H H H H*, with bolts *h h h h h h h h*, and the corner-bolts *L L L L*, connected by the expanding-springs *J J J J J J J J*, the collars *K K*, on the shaft *F*, the whole being constructed and operating in the manner and for the purpose herein described and set forth.

As evidence that I claim the foregoing I

have hereunto set my hand in the presence of two witnesses this 31st day of March, A. D. 1868.

SHUBAEL K. LUCE.

Witnesses:

J. S. LUCE,  
S. W. HALL.