

(No Model.)

H. W. BODEMAN.
ADJUSTABLE STOVE GRATE.

No. 362,919.

Patented May 10, 1887.

Fig. 1.

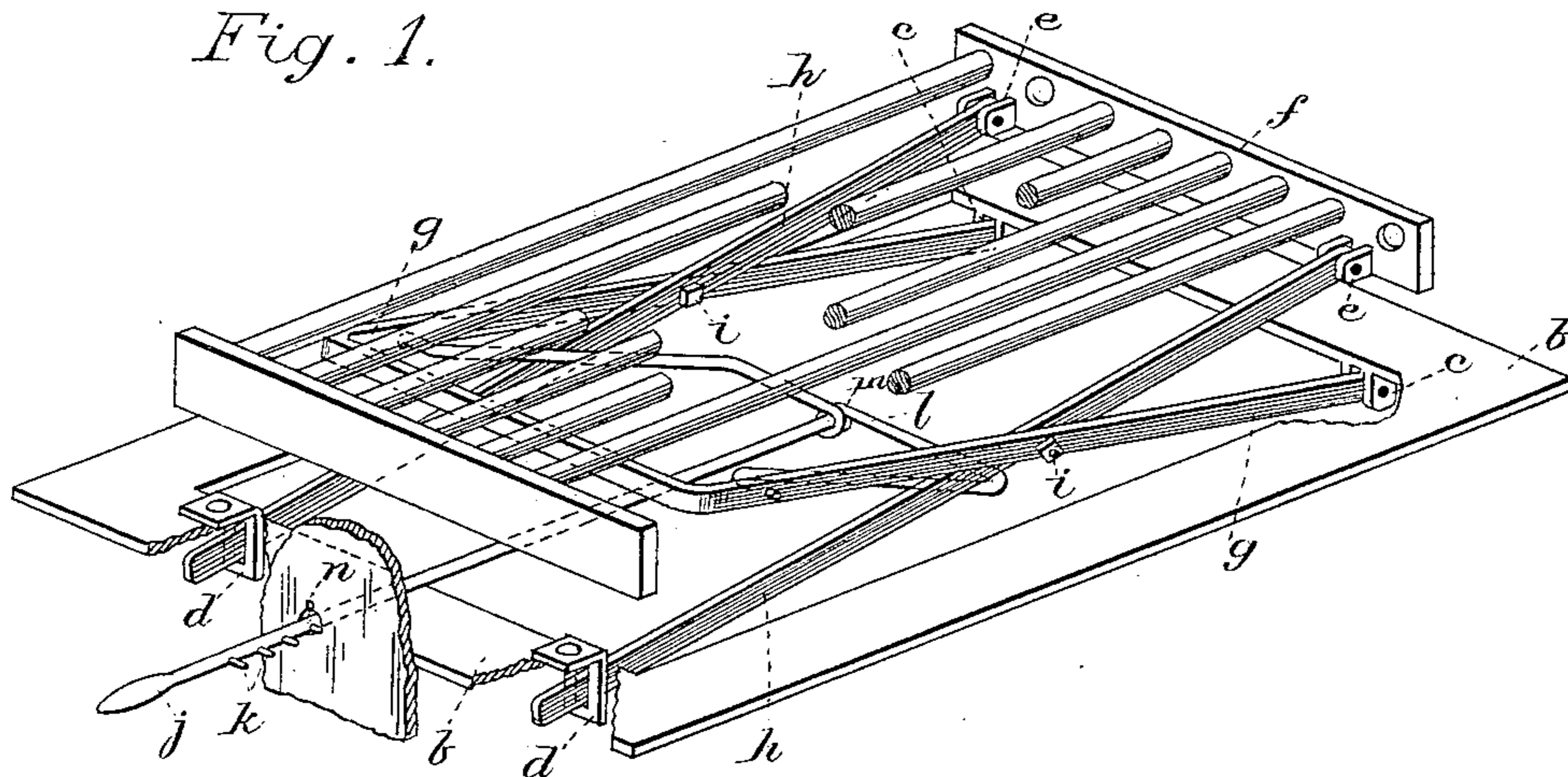


Fig. 2.

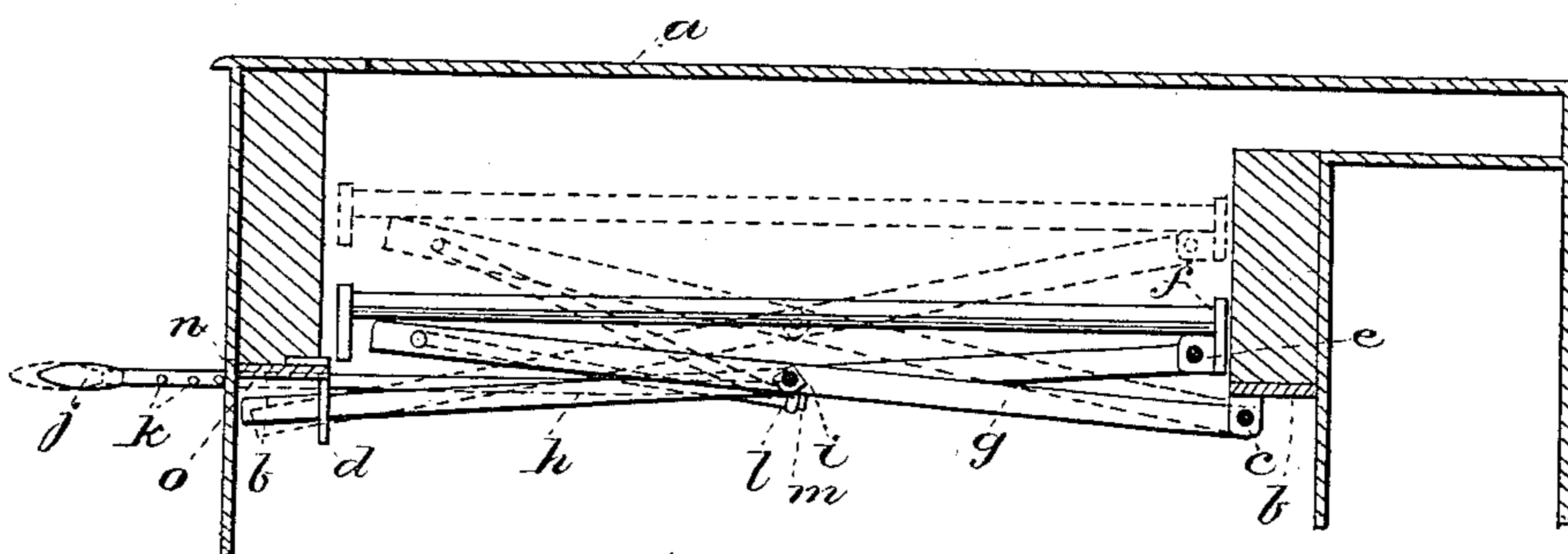
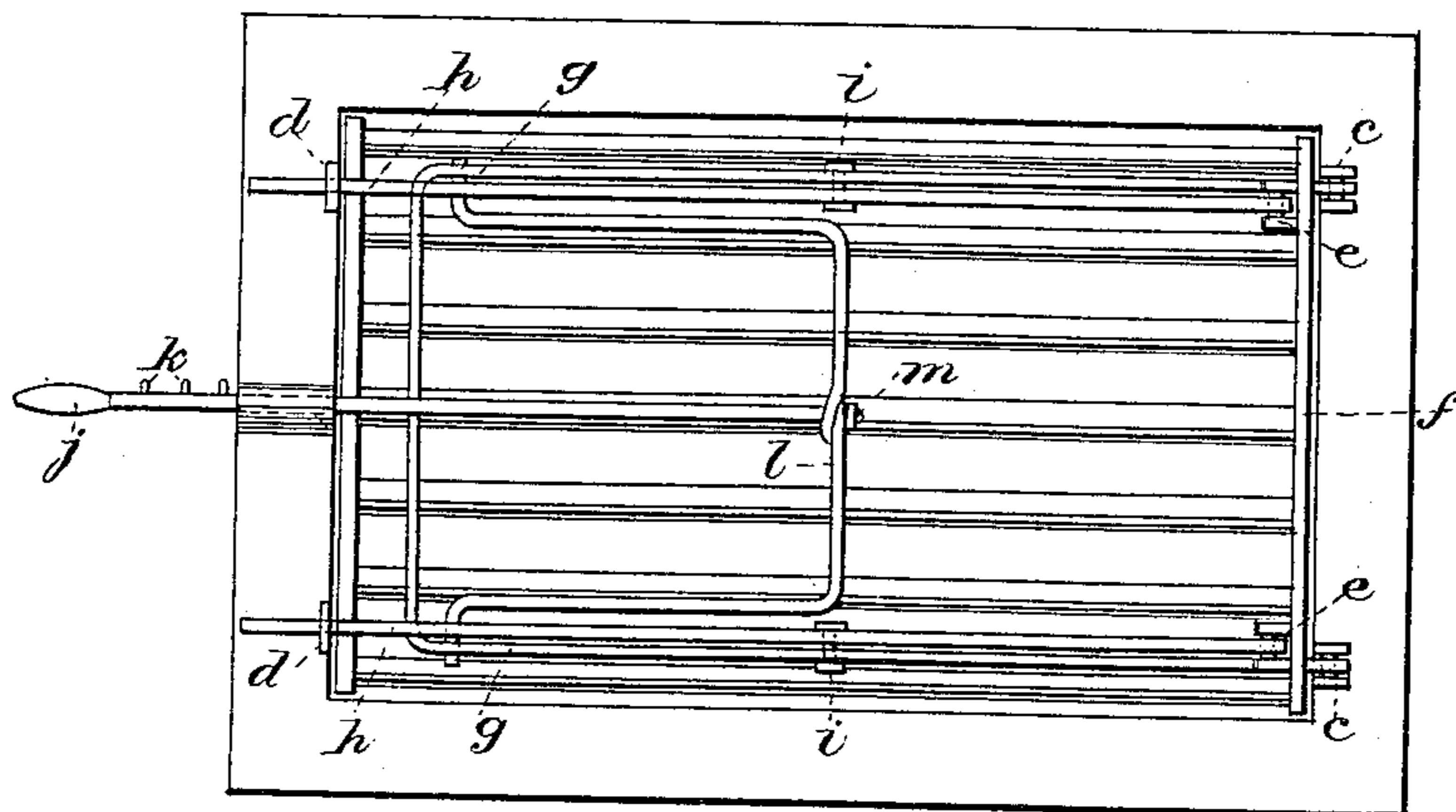


Fig. 3.



Witnesses:
E. A. Brandau
B. S. Homans

Fig. 4.



Inventor:
Henry William Bodeman
By his Atty,
Alphonso B. Smith

UNITED STATES PATENT OFFICE.

HENRY WILLIAM BODEMAN, OF SAN FRANCISCO, CALIFORNIA.

ADJUSTABLE STOVE-GRATE.

SPECIFICATION forming part of Letters Patent No. 362,919, dated May 10, 1887.

Application filed September 30, 1885. Renewed April 1, 1887. Serial No. 233,344. (No model.)

To all whom it may concern:

Be it known that I, HENRY WILLIAM BODEMAN, a resident of the city and county of San Francisco, State of California, have invented
5 a new and useful Adjustable Stove-Grate; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings.

10 My invention relates to means for adjusting a stove-grate, whereby the area of the fire-box may be lessened and the consumption of fuel reduced.

The following description fully explains the
15 nature of my said invention and the manner in which I proceed to construct, apply, and operate the same, the accompanying drawings being referred to by figures and letters—that is to say:

20 Figure 1 is a perspective view of the device applied, showing its attachment. Fig. 2 is a longitudinal section through the stove, the dotted lines showing the movement of the grate. Fig. 3 is a plan view of the device, looking up
25 from underneath. Fig. 4 is a front view of the grate-frame with a curved depression, showing the lugs attached.

Referring to Fig. 1, a lug, *c*, is formed with or secured to both sides of the rear of the grate-
30 frame *b*, and a lug, *d*, to both sides of the front of the same, and a lug, *e*, is bolted to both ends of the rear of the grate *f*. To these lugs, which have slots, I attach the side bars. The outer side bar, *g*, is in the form of a paral-
35 lelogram open at the rear end, where the points of the bars enter the slots in the lugs *c*, and are pivoted therein on bolts. The inner side bars, *h*, are pivoted on bolts in lug *e* on the grate, and at the front they enter slots in
40 lug *d*, in which they have free action. The side bars on both sides of the grate are pivoted in the center on bolts *i*, and have the action of scissor-blades. The adjusting-lever *j*, on the arm of which I arrange several points,
45 *k*, in line, enters a round hole, *n*, having a square cut on top in the vertical plate of the stove and passes through a curved depression, *o*, in the grate-frame, and thence to the cross-
50 bar of the lever-frame *l*, through the loop or hole in which it passes loosely, and is secured by a nut, *m*, Figs. 1 and 3. The ends of the bars forming the lever-frame pass over the inner side bar, *h*, and enter holes in the sides of the outer side bars, *g*, Figs. 1 and 3.

55 In the operation of my adjustable grate, if

it is desired to raise the grate from the bot-
tom of the fire-box, Fig. 2, the lever *j* is turned
to the left to disengage the point *k* from the
vertical plate of the stove and permit it to en-
ter the square cut over the top of the round 60
hole *n*, and the lever is then pulled forward. This action raises the side bars, whereby the grate is raised one-eighth or one-fourth or one-
half of the depth of the fire-box, as may be
desired, and when the grate has been adjusted 65
the lever is turned to the right and one of the points *k* catches against the vertical plate and holds the lever at the point of adjustment. When it is desired to lower the grate and to
enlarge the area of the fire-space, the lever is 70
turned to the left and then pushed inward until the desired point is reached, and is then turned to the right again, and is held in posi-
tion by one of the points on its arm. The ac-
tion of the lever and the lever-frame as they 75
are drawn outward or pulled inward raises or lowers the side bars, which are bolted to lugs at the rear and have free action at the front, evenly on the central pivot-bolts, *i*, and when
the grate is adjusted the lever is held securely 80
and maintains the grate in a level position.

The object of device is to reduce the con-
sumption of fuel by diminishing the area of
the fire-box, and I accomplish this object by
simple and inexpensive means. 85

If a common cooking stove or range has not
been originally supplied with the device, it
may be applied to either by removing the lin-
ing of the fire-box and then drilling holes in
the grate and grate-frame for bolting the lugs 90
thereto, and cutting the holes in the stove ver-
tical plate for the lever.

Having thus fully described my invention,
what I claim, and desire to secure by Letters
Patent, is— 95

The combination of the stove-plate having
the opening *n*, the lever *j*, having the points
k, the lever-frame *l*, the grate-frame *b*, having
a depression, *o*, the side bars, *g h*, pivoted to
the grate-frame and end of the grate, respect- 100
ively, and pivoted together centrally, and the
grate, all substantially as and for the purpose
set forth.

In testimony whereof I have hereunto set my
hand and seal.

HENRY WILLIAM BODEMAN. [L. S.]

Witnesses:

A. B. SMITH,
JAS. DAWSON.