

GLICK & KECK.

Grate.

No. 107,899.

Patented Oct. 4, 1870.

Fig: 1.

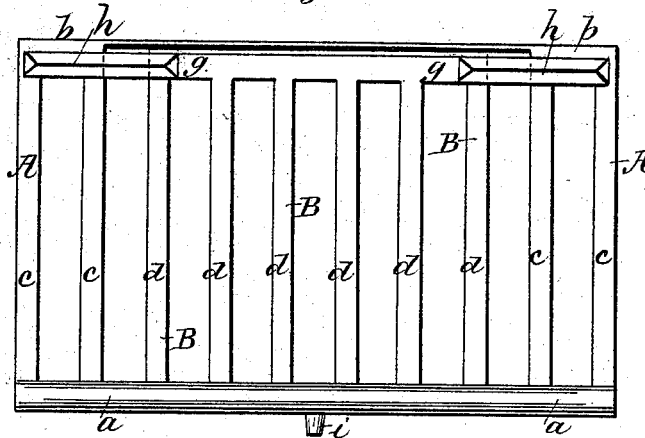


Fig: 2.

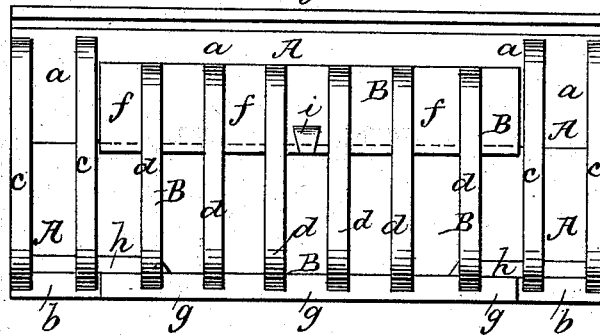
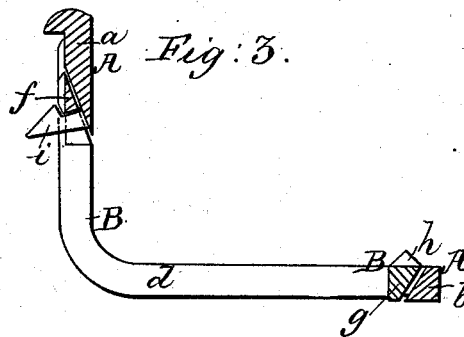


Fig: 3.



Witnesses.

W. E. G. Smith  
L. S. Moore

Inventors.

F. Glick  
& W. Keck  
By *[Signature]*

# United States Patent Office.

FRANCIS GLICK AND URIAH KECK, OF ALLENTOWN, PENNSYLVANIA.

Letters Patent No. 107,899, dated October 4, 1870.

## IMPROVEMENT IN GRATES.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern:*

Be it known that we, FRANCIS GLICK and URIAH KECK, of Allentown, in the county of Lehigh and State of Pennsylvania, have invented a new and improved Grate; and we do hereby declare that the following is a full, clear and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a plan or top view of our improved grate.

Figure 2 is a front view of the same.

Figure 3 is a transverse section of the same.

Similar letters of reference indicate corresponding parts.

This invention has for its object to improve upon the grate patented to Thomas Tompkinson, August 17, 1869. In his case, the detachable central section of the grate is supported, at its rear end, by round trunnions fitting in recesses, or grooved in the stationary outer portion of the same, and the two are connected, in front, by a double hook, which fits at its respective ends in slots or notches of the two sections. This construction is objectionable for the following reasons:

First, three separate castings are required, viz: the fixed outer, and the detachable central section of the grate, and the hook.

Second, the hook cannot be applied, when heated, except with great difficulty, and, in any case, only with the aid of tongs, pincers, or other similar holding-devices.

Third, besides the expense of casting three separate pieces, which the slots in the sections increase, the round tenons or trunnions fit in recesses, which prevents the grate being drawn forward except with difficulty, and when once displaced, cinders, ashes, &c., will prevent perfect readjustment of parts by filling said recesses.

Other objections exist, which it is unnecessary to enumerate.

A in the drawing represents the outer, and

B the inner section of our improved grate.

The outer section consists of the front or upper cross-bar, *a*, rear or lower cross-bar, *b*, and of two grate-bars, *c c*, at each end. This outer section is hung in the fire-place in the ordinary or suitable manner, and constitutes, as can be plainly perceived, the outer part of a full grate.

The inner section, B, consists of all the grate-bars, *d d*, except those at the ends, and of an upper cross-piece, *f*, and lower cross-piece *g*, the said pieces *f g* serving to hold the bars *e* the proper distances apart.

The ends of the bar *g* project beyond the grate-bars, and form ears, *h*, for supporting the rear end of the section B, on the rear of the section A.

The front end of the inner section is supported by a hook, *i*, that projects from the cross-piece *a*, the piece *f* being notched to fit said hook, as shown.

When the sections are secured together, as in the drawing, the grate is complete. When to be dumped, the inner section is raised at its front end, and at the same time drawn slightly forward, thus releasing it from the hook *i*, when it will swing on the ears *h*. It will be seen that the ears slide on the bars *c*, so that the section B may be tilted at one point as conveniently as another.

Having thus described our invention,

We claim as new, and desire to secure by Letters Patent—

The sliding detachable section B, *f, d, g, h*, and stationary section A, *a, i, c, b*, constructed and arranged as shown and described.

FRANCIS GLICK.  
URIAH KECK.

Witnesses:

P. O. LAUB,  
JOSHUA STAHLER.