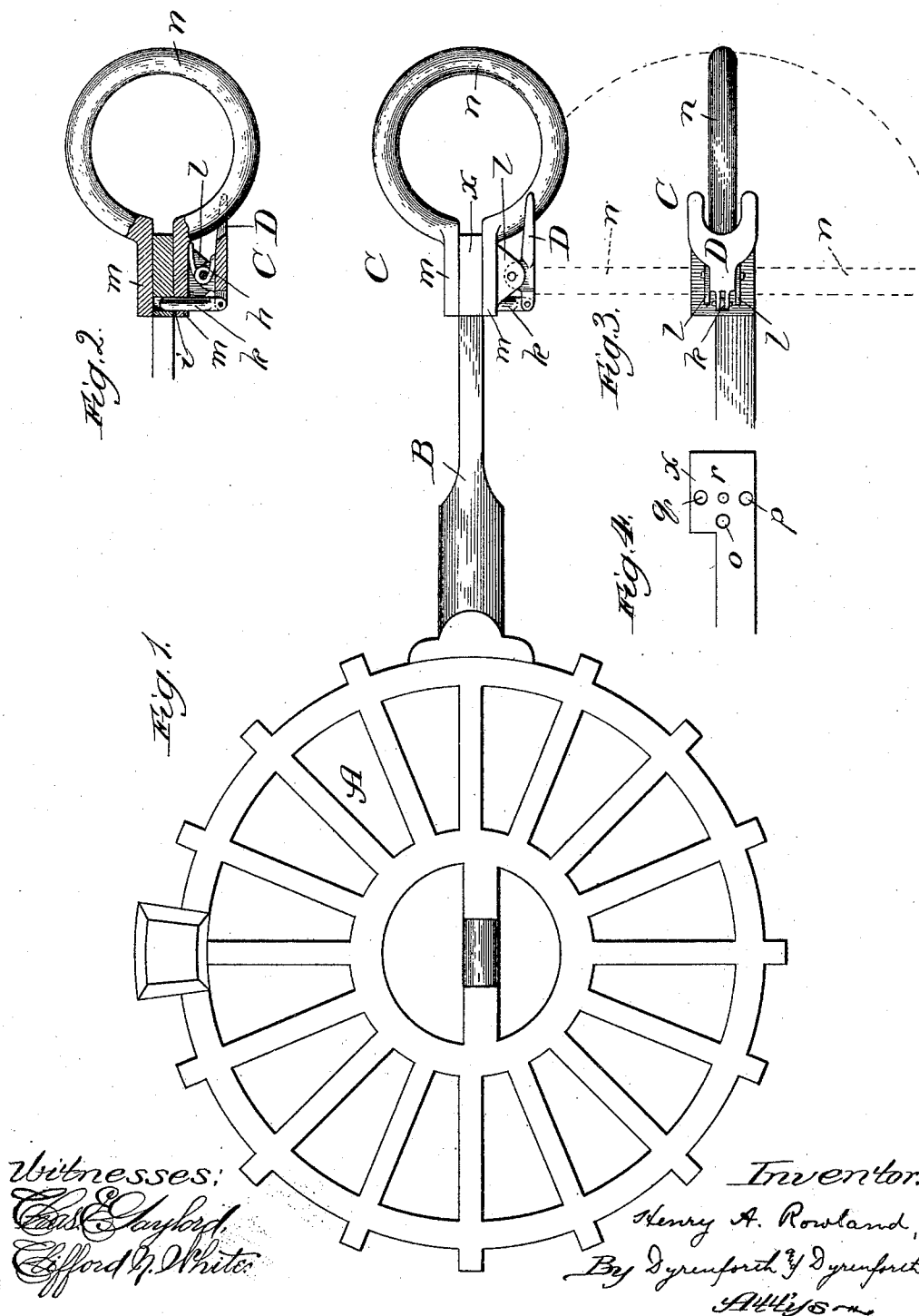


(No Model.)

H. A. ROWLAND.
FIRE GRATE ATTACHMENT.

No. 460,280.

Patented Sept. 29, 1891.



Witnesses:
Charles E. Clark
Clifford G. White

Inventor:
Henry A. Rowland,
By Seymour & Seymour
Attorneys

UNITED STATES PATENT OFFICE.

HENRY A. ROWLAND, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO REGGOLO PUCCINI AND C. DELL' OSSO, BOTH OF SAME PLACE.

FIRE-GRATE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 460,280, dated September 29, 1891.

Application filed February 18, 1891. Serial No. 381,828. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. ROWLAND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Fire-Grate Attachments, of which the following is a specification.

As a means for shaking and dumping the grates of stoves and furnaces it is customary to provide as a separate article a "shaker" or wrench adapted to be applied to the grate-arbor as a handle for the shaking or dumping operation, after which it is separated from the grate-arbor and laid aside. It is a common occurrence that the handle or wrench is mislaid or lost, which entails annoyance and inconvenience.

My object is to provide an attachment for the grate-arbor which shall be permanent thereon, and thus always in position for use, and the construction of which shall adapt it to be adjusted out of the way of obstructing passers by the stove, and thence into suitable positions, wherein it shall afford convenient means for shaking and dumping the grate.

In the accompanying drawings, Figure 1 is a plan view of a stove-grate having my improved attachment upon the end of the grate-arbor where it protrudes beyond the stove. Fig. 2 is a sectional plan view of the attachment on the end of the grate-arbor, shown as a broken section thereof. Fig. 3 is a view of the same in side elevation. Fig. 4 is a similar view of the end of the grate-arbor as adapted to have my improvement adjustably secured to it.

A is a grate, which may involve any desired form and construction, and B is its arbor, which should protrude at its outer end laterally beyond the body of the stove in which the grate is used, the outer end being enlarged, as represented at *a*, to afford the better bearing for my improved attachment C, hereinafter described, and being provided near its center with a pivot-hole *r*, above and below the latter with stud-holes *q* and *p*, and between the latter in horizontal line therewith with a stud-hole *o*.

The attachment C comprises a handle portion and a fastener therefor, the handle being preferably in the form of a metal ring *n* of

sufficient diameter to admit the insertion through it of the fingers to grip it, the ring form of the handle permitting the better grip and purchase thereon for working the grate. The ring *n* is open at one side and there bifurcated or provided with parallel lugs *m*, which embrace the end of the arbor, to which they are secured by a pivot-pin passed through them and through the pivot-hole *r*. On one of the lugs *m*, preferably that at the right-hand side of the ring, are bearings *l*, in which is fulcrumed between its extremities a lever D, the form shown of which is preferred and involves a bifurcated rear end to embrace the ring *n* where it crosses the plane thereof. At the forward end of the lever D is a stud *k*, extending through a hole *i*, Fig. 2, in line with it in the adjacent lug *m*, the lever and its stud forming my preferred form of fastener for the handle. In the normal or horizontal position of the lever D, at which it is elastically maintained by a controlling-spring *h*, the stud *k* extends into the end of the arbor B at whichever hole *q*, *p*, or *o* therein it may be caused to coincide with, the said holes being formed ninety degrees apart on the circle described by the stud in moving the handle *n* on its pivot.

When my improved attachment is not in use, the handle or ring *n* hangs, being retained in that out-of-the-way position by the stud *k* entering the hole *q* in the arbor end. To adjust the handle into horizontal position, wherein it is to be used for shaking the grate, the rear end of the lever D is pressed inward by the thumb of the operator, (who grips the ring in his hand to manipulate it,) thereby withdrawing the stud from the hole *q* and permitting the handle to be raised to the desired position, wherein (the lever being released) the stud enters the hole *o* and holds the handle rigidly in place for the shaking operation. From the latter the handle may, on again compressing the lever, be returned to its hanging position, (represented by dotted lines in Fig. 3,) or to its upright position, (similarly represented in the same figure,) and in which the stud enters the hole *p* and rigidly holds the handle *n* in position for use in dumping the grate.

As will thus be seen, my improvement, by

being permanently in position for use, obviates the inconvenience and annoyance referred to as being incidental to the use of the common separate adjustable and detachable grate-shaking implement, while the cost of providing it need not be much, if any, greater than that of the separate device, and by its construction it is adapted to be fastened to the grates of various kinds of stoves and furnaces.

I do not limit my improvement to the exact details of construction shown and described, because they may be variously modified without departure from my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination, a grate having an arbor provided in its end with holes, a handle piv-

oted to the end of the arbor, and a spring-controlled lever provided with a stud to engage the holes in the arbor, substantially as and for the purpose set forth.

2. In combination, a grate A, having an arbor B, provided in its end with stud-holes arranged on a circle, a ring-handle *n*, having lugs *m* embracing the end of the arbor and pivoted thereto at the center of the said circle, and a spring-controlled lever D, fulcrumed on one of the said lugs and provided with a stud *k*, extending through the said lug, substantially as and for the purpose set forth.

HENRY A. ROWLAND.

In presence of—

J. W. DYRENFORTH,

M. J. FROST.