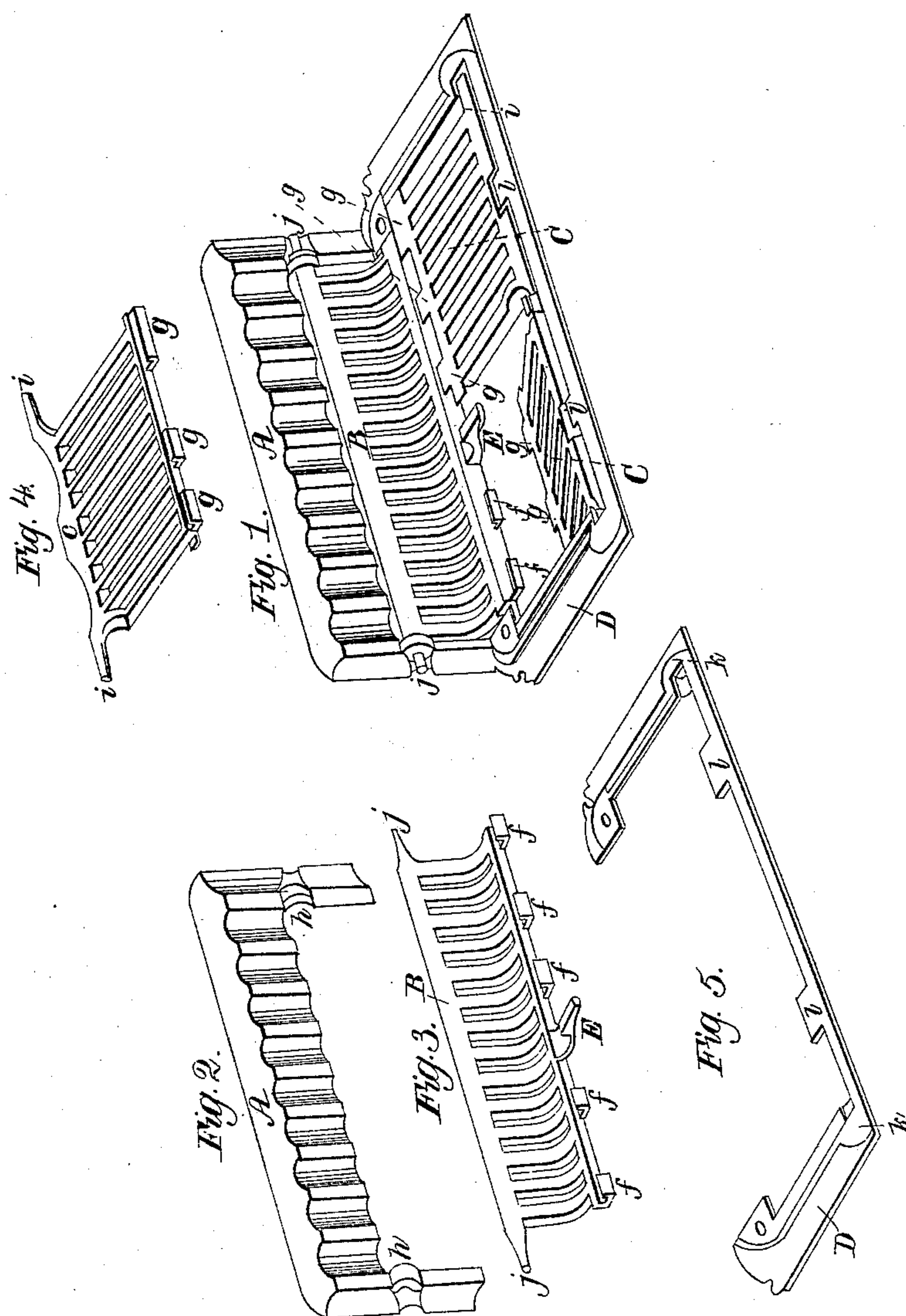


H. J. RUGGLES.

Stove Grate.

No. 8,535.

Patented Nov. 18, 1851.



UNITED STATES PATENT OFFICE.

H. J. RUGGLES, OF WEST POULTNEY, VERMONT.

STOVE-GRATE.

Specification of Letters Patent No. 8,535, dated November 18, 1851.

To all whom it may concern:

Be it known that I, H. J. RUGGLES, of West Poultny, in the county of Rutland and State of Vermont, have invented certain new and useful Improvements in the Fire-Chamber of Stoves, &c., and that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings, making a part of this specification.

My improvement consists in an arrangement of several plates and grates in the fire arch or chamber of a cooking or other stove by which I avail myself of the pleasant effect of an open fire exposed through the front grate and a great convenience is introduced by being able at pleasure and in an easy and effectual manner to drop the contents of the fire chamber into the hearth below. For wood the stove is made very economical by using a close plate under the fuel instead of the usual open grate.

The parts are constructed as follows: An oblong frame D, Figures 1, and 5, forms the stationary portion of the bottom of the fire chamber; to the rear side of this is hinged the bottom grate C, which may be in two parts, as shown in the Fig. 1, one of said grates being represented detached in Fig. 4, which shows its under side; on its front edge are hooks (*g g*) that hook onto the front plate A, of the fire chamber is corrugated in its upper part, below which there is an open space, the end only projecting down to the bottom of the fire chamber. At a level with the lower edge of the corrugated portion of the plate A are staples that serve as the hinge joint of a swing grate B that forms the lower portion of the front of the fire chamber. The corrugated plate is shown detached in Fig. 2; the swing grate in Fig. 3. The lower ends of

the bars of the swing grate turn inward in a curve and are connected by a cross bar on which are a series of hooks *f f* on to which the hooks (*g g*) above named on the bottom grate C, catch when all the parts are in position as shown in Fig. 1, on one side. At the center of the swing grate or in any other proper position, there is a projecting inclined plane E which extends under the bottom grates C, to some distance and is for the purpose of raising the bottom grates into place after they have been dropped to discharge the contents of the fire chamber.

(*l, l,*) are projections on the back part of the bottom stationary frame D, to keep the bottom grates in place while being raised.

In burning wood I employ solid plates instead of the grates C.

The operation of discharging the contents of this grate and for which purpose the invention was especially designed is as follows: The hooks *f f* and *g g* are disengaged from each other and the swing grate B is allowed to swing forward thus dropping the front of the bottom grate and the contents of the fire chamber is precipitated forward into the sunk hearth of the stove after which by pushing back the swing grate the incline E raises the bottom grates up and the hooks *f* slide under the hooks (*g, g,*) which thus catch onto them and the whole is again secured by the simple operation.

Having thus fully described my new and improved fire chamber for stoves, &c., what I claim therein as new and for which I desire to secure Letters Patent is—

The inclined elevator E for raising the back grate and coupling it with the front grate and in combination the connecting the front and back grates with hooks or catches constructed and arranged substantially as above specified.

H. J. RUGGLES.

Witnesses:

W. O. RUGGLES,
E. D. THUMY.