F. KENNEY.

Heating Stove.

No. 13,314. Patented July 24, 1855.

Fig. 3

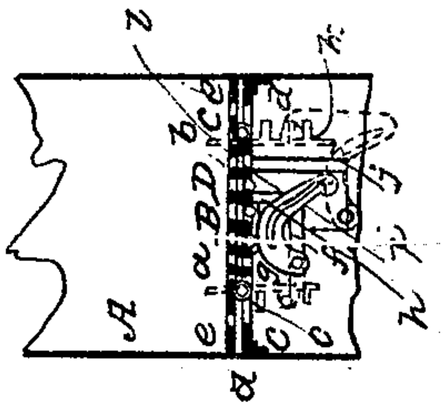


Fig. 2

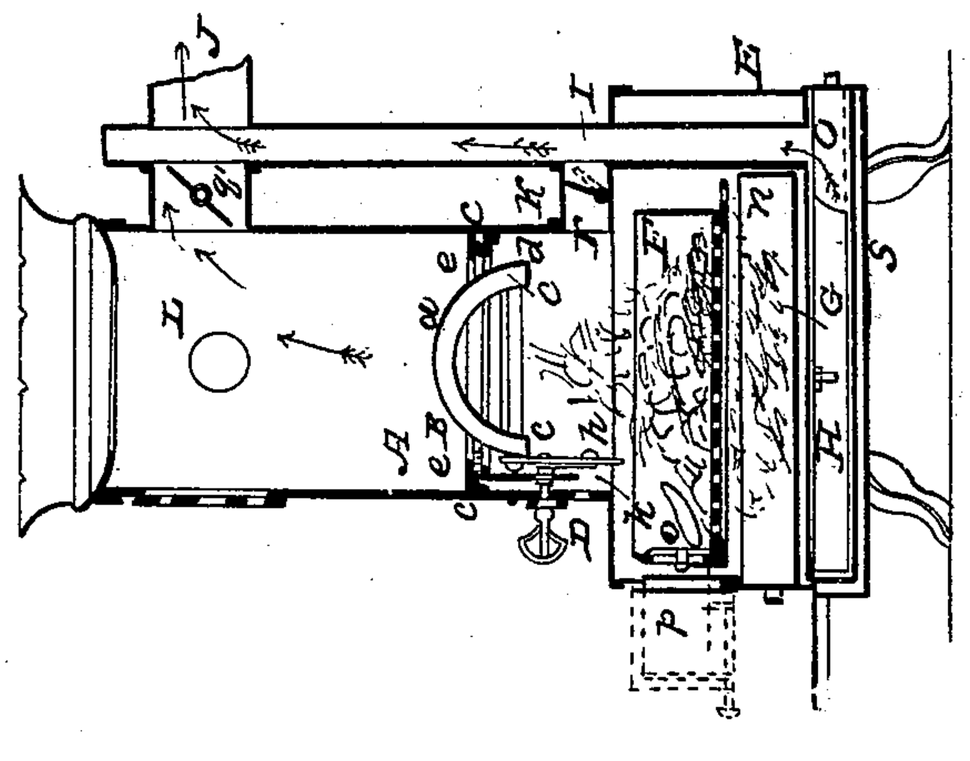
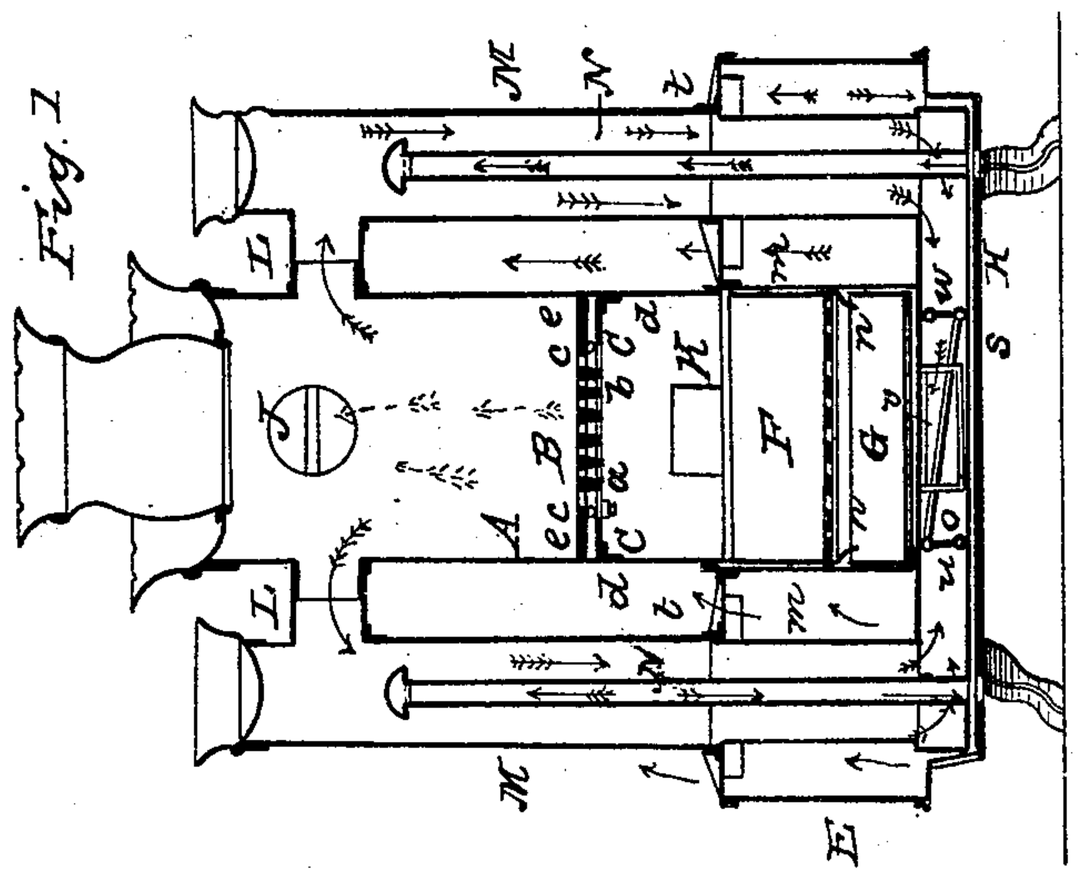


Fig. 1



UNITED STATES PATENT OFFICE.

FRANCIS KENNEY, OF SPRINGFIELD, MASSACHUSETTS.

PARLOR-STOVE.

Specification of Letters Patent No. 13,314, dated July 24, 1855.

To all whom it may concern:

Be it known that I, FRANCIS KENNEY, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and Improved Stove for Heating Parlors and other Apartments; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figures 1 and 2 are vertical sections of my improved stove, the planes of sections passing through the center and crossing each other at right angles. Fig. 3, is a vertical section of a portion of the cylinder of the stove, showing the device by which the grate is operated.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of my invention consists in a peculiar arrangement of flues and air heating chambers provided with dampers as will be presently shown and described.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents the cylinder of the stove constructed of the usual material and of any proper dimensions, B, is the fire grate of circular form, and divided into two parts, *a*, *b*. Each of these parts are connected by joints, *c*, to a circular rim C, which is fitted between lips or lugs, *d*, and a rim or projection, *e*, attached permanently to the inner side of the cylinder A. The rim C, is allowed to turn freely between the lips or lugs, *d*, and rim, *e*.

D, Figs. 2 and 3, is a small shaft which passes through the front part of the cylinder A. To the inner end of this shaft a bent or right angled lever *f*, is attached. One end of the lever, *f*, is connected to one of the parts, *a*, of the grate B, by a link, *g*. And the opposite end is attached by a pivot to the end of a curved plate, *h*, which has a curved slot, *i*, made through it, in which slot a pin, *j*, attached permanently to an arm, *k*, within the cylinder fits. The opposite end of the curved plate, *h*, has an upright projection, *l*, attached to it, which projection is connected to the other part, *b*, of the fire grate B, see more particularly Fig. 3.

The cylinder A, is fitted to the upper surface of a hollow base E, which is divided into three parts by two vertical partitions, *m*, *m*, see Fig. 1. The center apartment between the two partitions communicates with the cylinder A, and contains a drawer F, having a perforated bottom and fitted on ways, *n*, *n*, so that it may be moved back or forth. The front end of the drawer is provided with a door, *o*, which may be let down, see Fig. 2. The front of the base in front of the drawer is provided with doors, *p*. Underneath the drawer F, there is a drawer G, which receives the ashes. Underneath the base E, there is a chamber H, the back end of which communicates with a vertical pipe or flue I, which passes up back of the cylinder A, and communicates with the smoke pipe J. The smoke pipe J, is attached to the upper part of the cylinder, and is provided with a damper, *g*, between the cylinder and pipe I, see Fig. 2.

K, is a short pipe which communicates with the cylinder A, and pipe I, below the fire grate. This pipe is provided with a damper, *r*.

L, L, are short horizontal pipes which communicate with the upper part of the cylinder A, and with the upper parts of vertical pipes M, M, at opposite sides of the cylinder A. The lower parts of the pipes M, M, pass through the end apartments of the base E, and communicate with the chamber H, see Fig. 1. Within the pipes M, there are vertical tubes N, one in each, the lower ends of these tubes communicate with a passage, S, underneath the base, and this passage communicates with the external air by means of an opening around its lower edge. The upper ends of the tubes N, are opened. The spaces in the end apartments of the base around the pipes M, form hot air chambers, and have registers, *t*, in the top of the base, see Fig. 1.

Within the chamber H, there are two dampers, *u*, *u*. These dampers are parallel with each other and open or close the communication with the pipe I, the lower end of which, is connected with the chamber H, between the two dampers. The dampers are connected by a rod, *v*, so that by turning, one motion will be communicated to the other. At the back part of the chamber H, and underneath the pipe I, there is a drawer O.

When a direct draft is required, the damper, *q*, is opened and the dotted arrows show the direction of the draft. When the damper, *q*, is closed, the solid arrows show

the direction of the draft. It will be seen that the draft passes down the pipes M, into the chamber H, and thence through the openings covered by the dampers, *u*, *u*, which are of course more or less open, and into the lower part of the pipe I, and passes up the pipe I, into the smoke pipe J. The cold air indicated by red arrows Fig. 1, passes up through the passage, *s*, into the apartments at the ends of the base E, around the pipes M, where it becomes heated and passes into the apartment through the registers, *t*. Cold air also passes up the tubes N, see blue arrows, and becomes highly heated before coming in contact with the gases, from the gases from the fire.

The ashes may be thoroughly sifted from the fire chamber by moving the shaft D, laterally as said shaft fits in a slot in the cylinder, and the contents of the fire chamber may be deposited in the drawer F, below the grate, by giving the shaft D, one quarter of a turn or revolution as the right angled lever, *f*, will operate the plate, *h*, and the two parts, *a*, *b*, will turn on the joints or pivots, *c*, see Fig. 2.

The ashes are sifted from the cinders in the drawer F, by moving said drawer back and forth, the ashes falling through the perforated bottom into the ash drawer G. The cinders are removed from the drawer or sifter F, by opening the door, *o*, in its front end. When the drawer or sifter F, is operated, the damper, *r*, is opened to allow the dust to escape into the pipe I.

The above invention is simple and is valuable for parlors and sitting rooms, as no dust can escape into the apartment, the ashes being sifted from the cinders while confined within the cylinder A. Much labor is also saved, and the invention will also effect a saving in fuel, because servants now in many cases throw away the cinders to avoid the trouble of sifting them. The heat from the stove is also perfectly radiated, and the whole apparatus is composed of fewer parts than the generality of radiating stoves in use, and can be manufactured equally as cheap.

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

The arrangement of the pipes M, tubes N, chamber H, and pipe I, when provided with the dampers, *u*, *u*, *q*, *r*, specifically as herein shown for the purpose set forth.

FRANCIS KENNEY.

Witnesses:

CHAS. A. WINCHESTER,

JAMES E. MCINTIRE.