

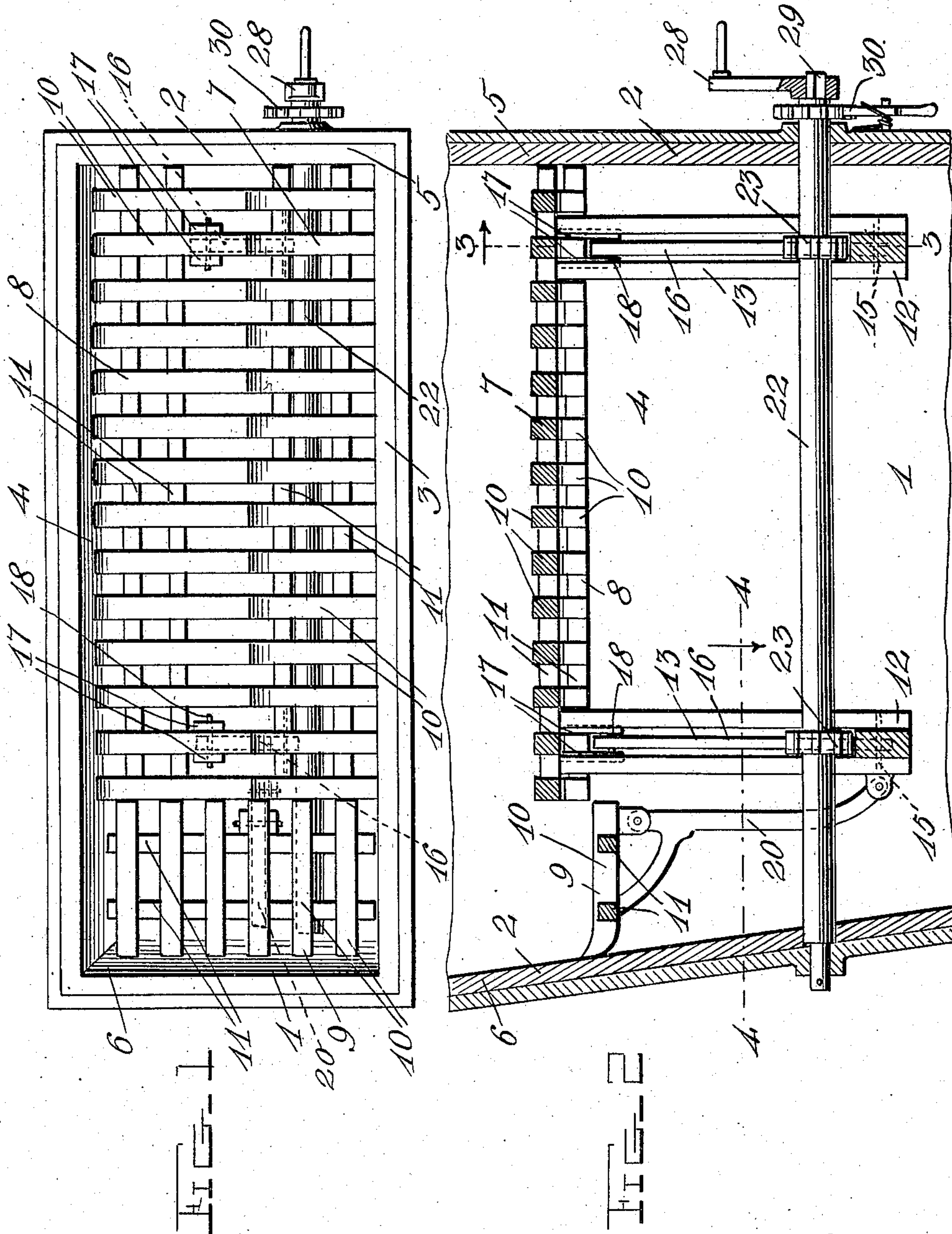
No. 854,968.

PATENTED MAY 28, 1907.

F. P. SOUPESET.
STOVE GRATE.

APPLICATION FILED APR. 5, 1906.

2 SHEETS—SHEET 1.



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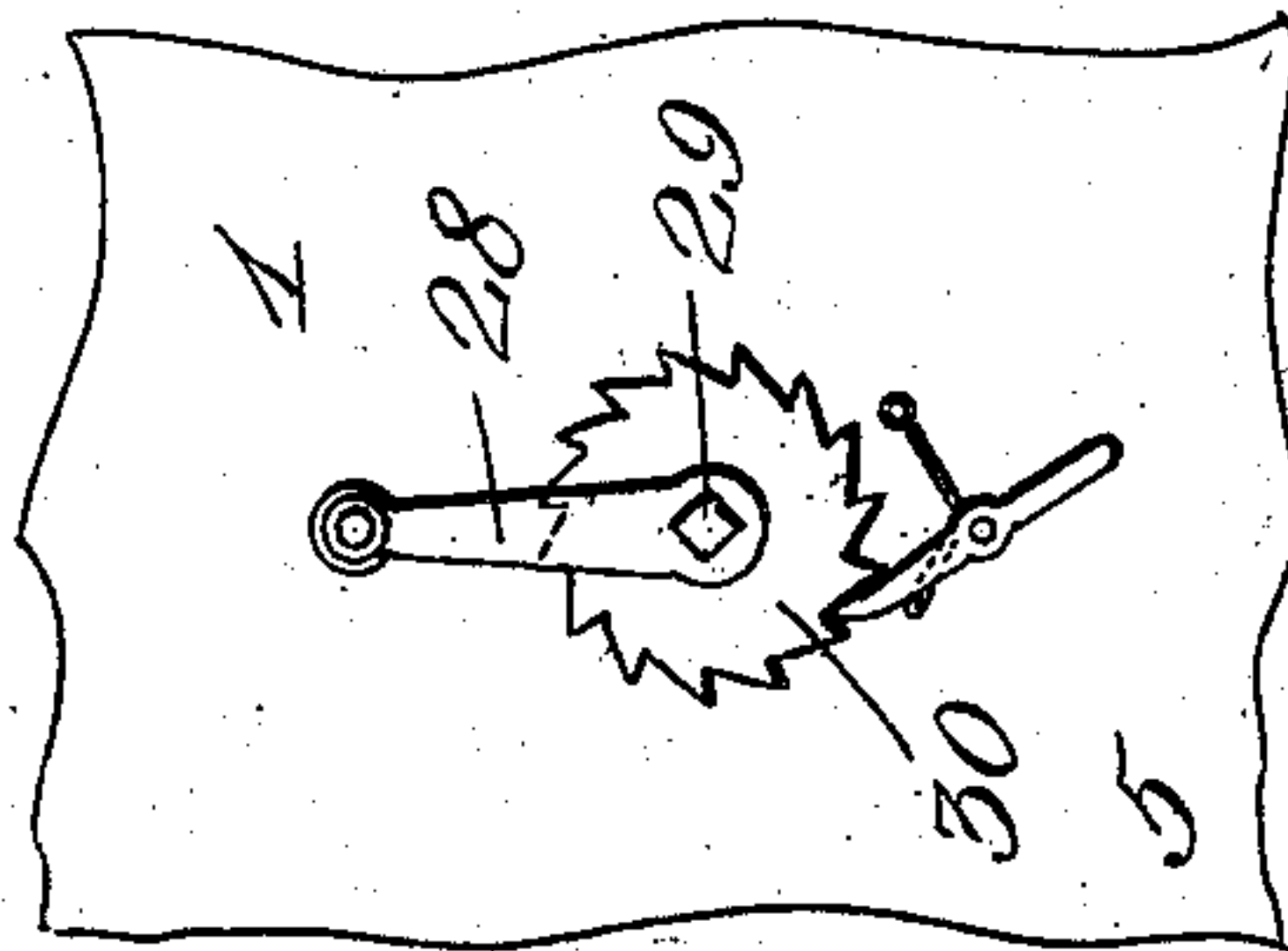
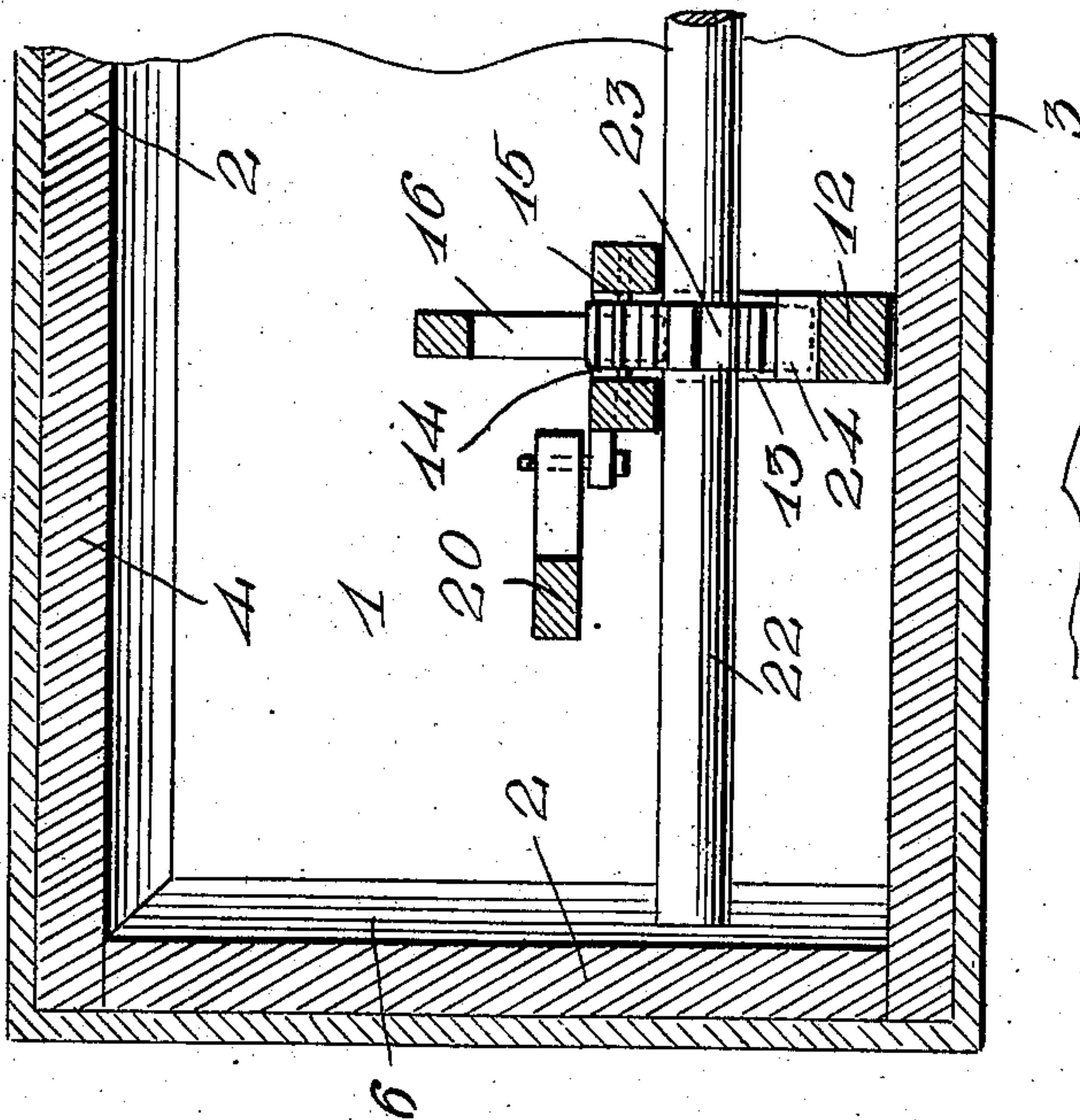


FIG. 5

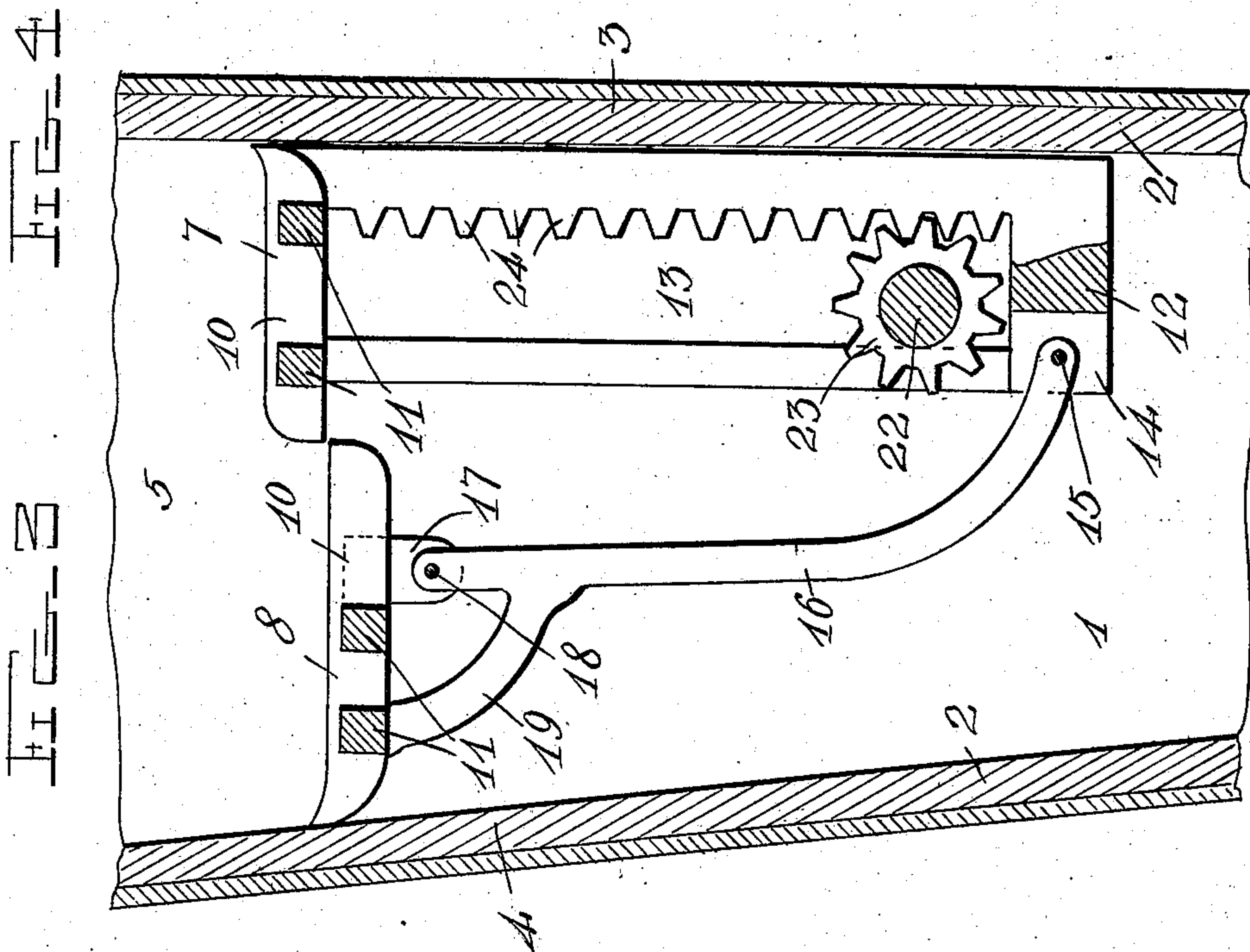


FIG. 3

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UNITED STATES PATENT OFFICE.

FREDRICK P. SOUPESET, OF ROCKY FORD, COLORADO.

STOVE-GRATE.

No. 854,968.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed April 5, 1906. Serial No. 310,125.

To all whom it may concern:

Be it known that I, FREDRICK P. SOUPESET, a citizen of the United States, residing at Rocky Ford, in the county of Otero and State of Colorado, have invented certain new and useful Improvements in Stove-Grates; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in grates for stoves, furnaces and the like.

The object of the invention is to provide a device of this character which may be raised and lowered vertically to vary the depth of the fire-box or grate, and which will adjust itself laterally or horizontally when the fire-box has inclined side and end walls.

With the above and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts hereinafter described and claimed.

In the accompanying drawings,—Figure 1 is a plan view of the fire-box of a stove, furnace or similar heater, showing my improved grate mounted therein; Fig. 2 is a vertical longitudinal sectional view through the same; Fig. 3 is a vertical transverse sectional view, and Figs. 4 and 5 are detail views.

Referring to the drawings by numeral, 1 denotes the fire-box of a stove, furnace or similar heater which is suitably lined, as shown at 2, and has a vertical side 3, an inclined side 4, a vertical front end 5, and an inclined rear end 6.

My improved grate is mounted for vertical adjustment within this fire-box, and, as shown, comprises a main section 7, a laterally or horizontally adjustable longitudinal or side section 8, and a laterally or horizontally adjustable transverse or end section 9. As shown, each of the sections 7, 8, 9 consists of a series of short transverse parallel bars or portions 10, connected by longitudinal parallel bars or portions 11, which portions 10, 11 may be formed integral with each other or constructed in any other suitable manner.

The main section 7 of the grate is adapted to move vertically in contact with the vertical wall 3 of the fire-box, and the adjacent ends of the transverse bars 10 are curved up slightly, while the opposite ends are curved downwardly. The other sections 8, 9 of the grate have their transverse bars similarly formed, the ends of the bars 10 which con-

tact with the inclined side 4 and end 6 being curved upwardly, as shown.

The main section 7 has depending from its bottom, adjacent to its ends, standards or arms 12, which are, as shown, of T-shape in cross section, their main portions being slotted, as shown at 13, and their cross portions slotted, as at 14. In the lower end of the slots 14 are pivoted at 15 the reduced curved ends of arms 16, which have pivotally mounted upon their upper ends, the side or longitudinal grate section 8. The latter carries upon its under face, parallel lugs or ears 17, which are disposed adjacent to its inner edge and between which is pivoted at 18, the reduced upper ends of the arms 16. The latter are provided at said upper ends with outwardly projecting stops 19, which are adapted to support the outer portion of the bottom of the grate section 8 and prevent the latter from dropping. By thus pivoting the grate section 8 upon the upper ends of the arms 16 and pivotally mounting the latter at their lower ends, it will be seen that as the grate is raised or lowered in the fire-box, the section 8 will adjust itself laterally or horizontally according to the varying width of the fire-box. The end section 9 of the grate is similarly pivoted upon the upper ends of arms 20, which latter have their lower ends pivoted upon the standards 12, as shown.

The grate may be adjusted vertically in the fire-box in any suitable manner, but, as shown, I have provided a longitudinally extending shaft 22, which carries pinions 23 to mesh with rack teeth 24 formed in the walls of the slots 13 in the standards 12, so that when said shaft is rotated by turning a crank handle or other device 28 removably engaged with its outer polygonal end 29, the grate sections will be raised and lowered vertically in the fire-box to change the level of the fire therein, as desired. If desired, a pawl and ratchet device 30 or any other suitable means may be provided for holding the shaft 22 against movement to support the grate sections in an adjusted position.

From the foregoing description, taken in connection with the accompanying drawings, the construction, use and advantages of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of

the invention, as defined by the appended claims.

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

1. The combination with a fire box, of a grate vertically adjustable therein and comprising a main section, and a laterally or horizontally adjustable section having a pivotal
10 connection with the main section.

2. The combination with a fire box, of a grate vertically adjustable therein and comprising a main section, swinging arms carried by the main section, and a laterally or horizontally adjustable section pivotally mounted
15 upon the arms.

3. The combination with a fire-box having an inclined wall, of a grate vertically adjustable therein and comprising a main section,
20 swinging arms carried by said main section, and a laterally or horizontally adjustable section pivotally mounted upon said arms.

4. The combination with a fire-box having an inclined wall, of a main grate section, arms
25 or standards depending therefrom, means for adjusting said standards, vertical arms pivotally mounted at their lower ends in said standards and having stop projections at their upper ends, and a laterally or horizontally adjustable grate section pivotally
30 mounted upon the upper ends of said pivot arms and adapted to engage said stop projections, substantially as described.

5. The combination with a fire-box having
35 inclined side and end walls, of a main grate section adjustable vertically in said fire-box,

and laterally or horizontally swinging side and end sections carried by said main section.

6. The combination with a fire-box having inclined side and end walls, of a main grate
40 section, a rack and pinion device for adjusting the same vertically, and laterally or horizontally adjustable side and end grate sections mounted to swing from said main section.

7. The combination with a fire-box having inclined side and end walls, of a main grate
45 section, arms depending therefrom and having racks thereon, a shaft, pinions upon said shaft to engage said racks, means for operating said shaft and holding it against movement, and side and end grate sections mounted to swing from said main section, substantially as described.

8. The combination with a fire box having
55 an inclined side and end wall, of a vertically adjustable grate composed of a plurality of sections, certain of which are adapted to bear against the inclined walls of the fire box.

9. A grate composed of two longitudinal
60 sections and a transverse section having a pivotal connection with the first-named sections, and means for vertically adjusting all the sections in unison.

In testimony whereof I have hereunto set
65 my hand in presence of two subscribing witnesses.

FREDRICK P. SOUPESET.

Witnesses:

JOHN PORTER,
H. VAN BUSKIRK.