No. 763,454. PATENTED JUNE 28, 1904.

A. ALITTO.

STOVE GRATE.

APPLICATION FILED JULY 17, 1903.

NO MODEL. 3 SHEETS—SHEET 1.

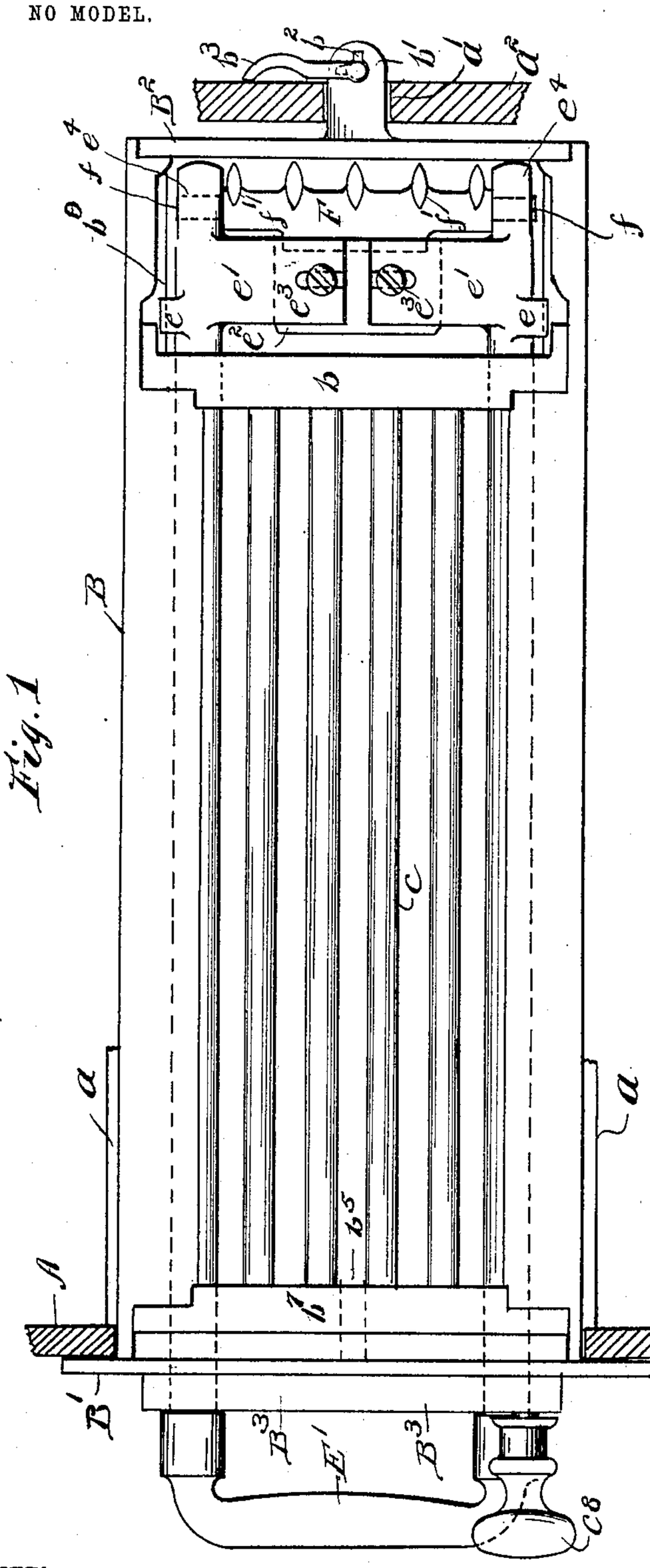

Fig. 1

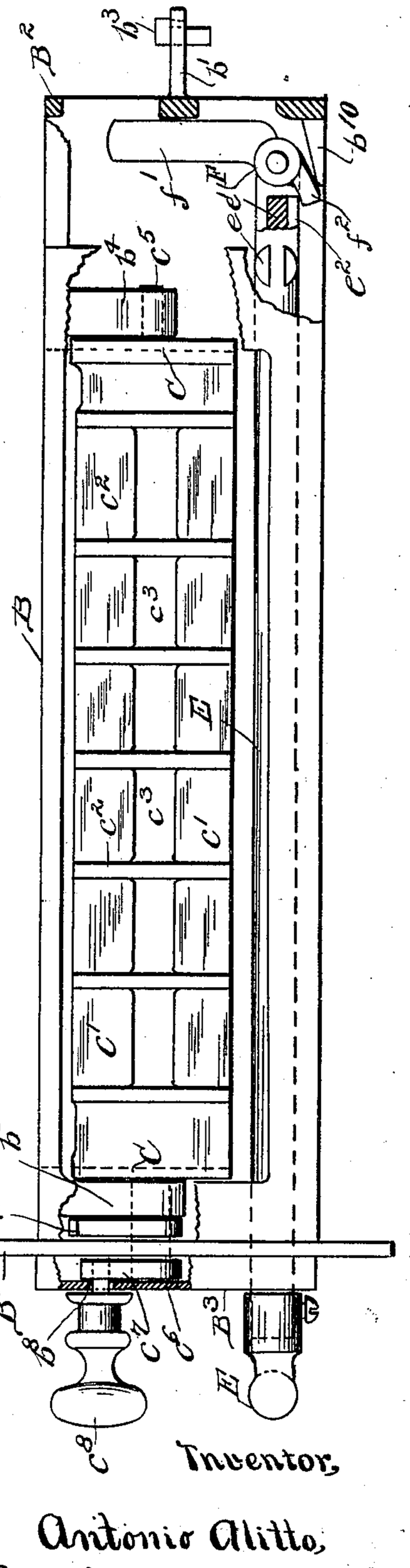

Fig. 2

Witnesses:

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NO MODEL. 3 SHEETS—SHEET 2.

Fig. 3

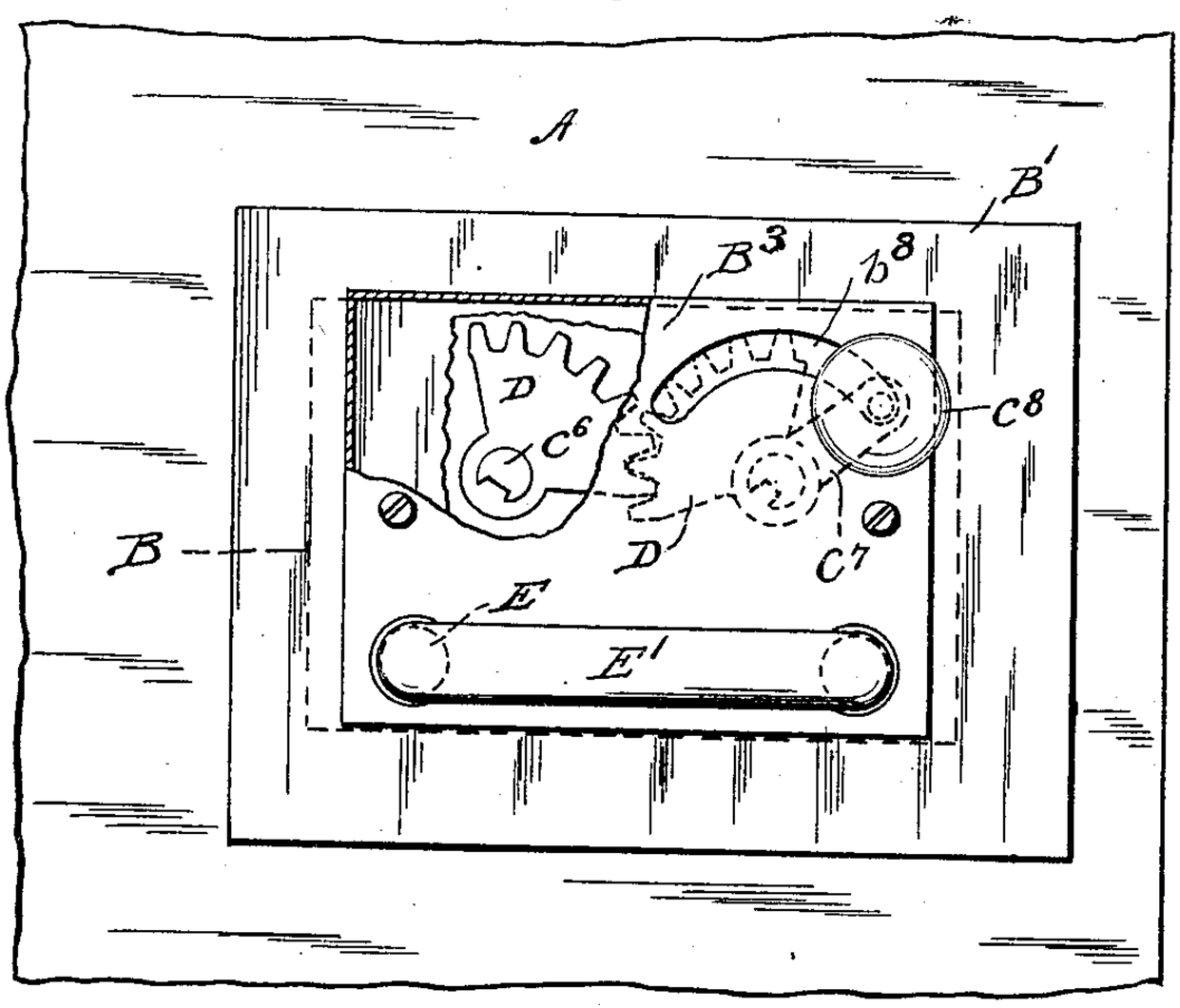


Fig. 4

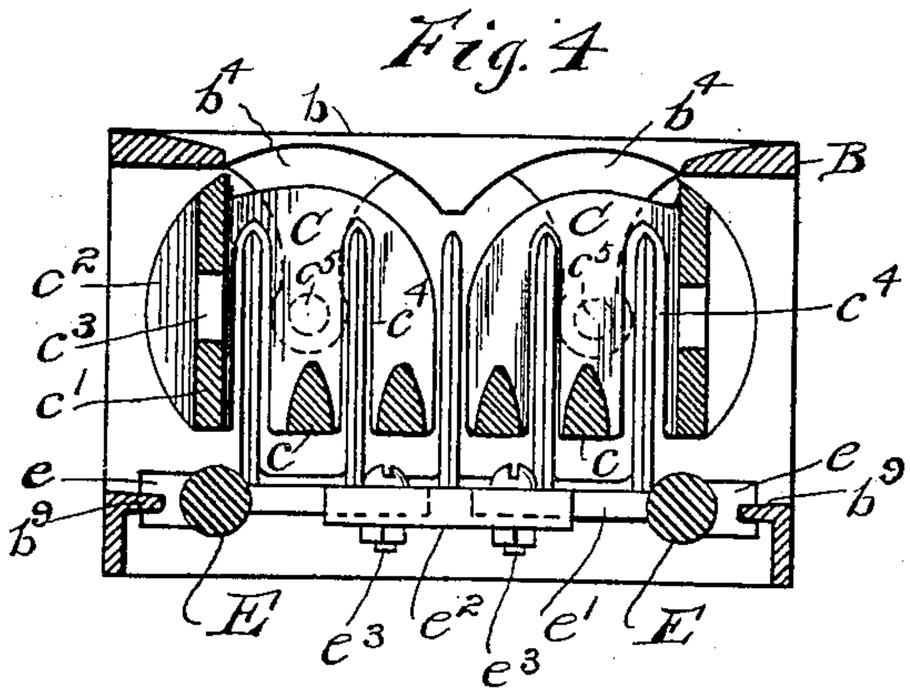


Fig. 5

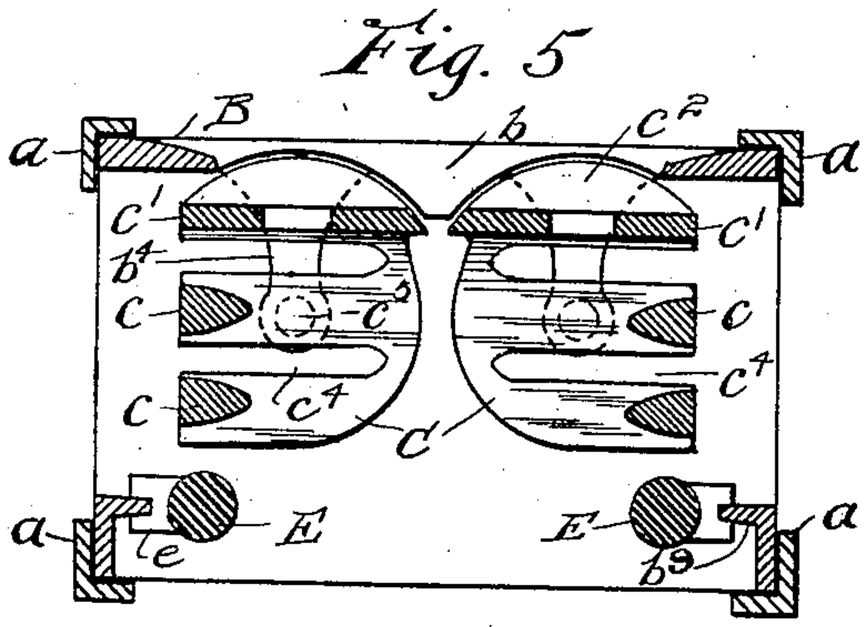
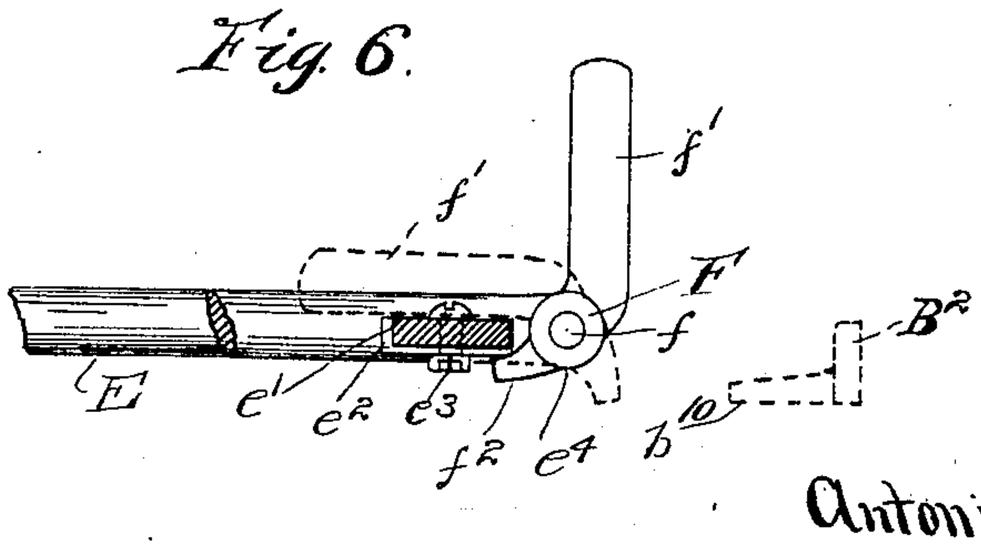


Fig. 6.



Witnesses:

M. Sikkberg.

Fred. Olde

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A. ALITTO.

STOVE GRATE.

APPLICATION FILED JULY 17, 1903.

NO MODEL. 3 SHEETS—SHEET 3.

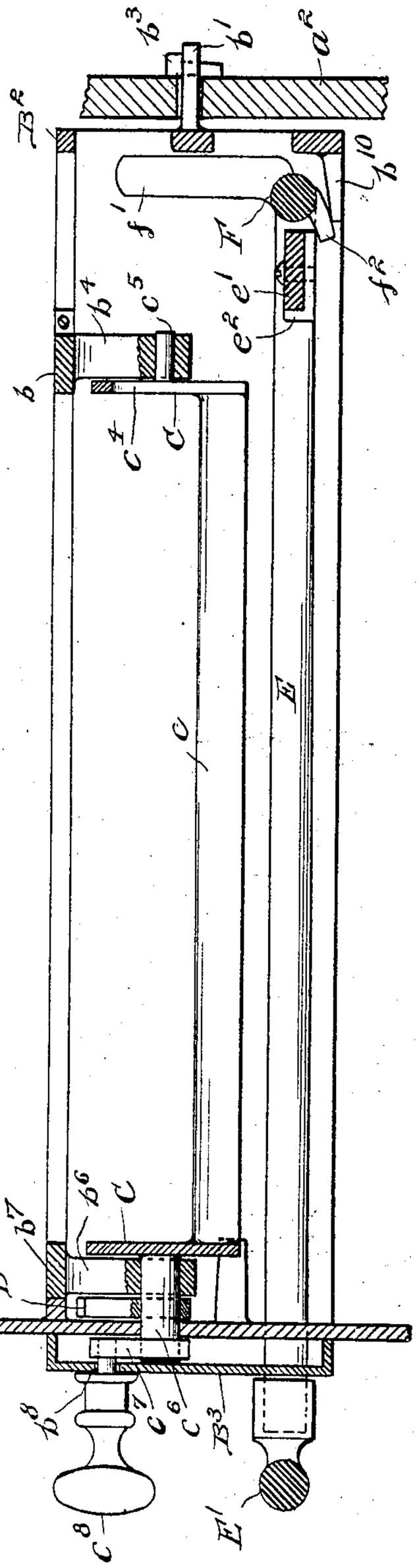

Fig. 1.

Witnesses:
M. C. Giktberg.
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Inventor,
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No. 763,454. Patented June 28, 1904.

UNITED STATES PATENT OFFICE.

ANTONIO ALITTO, OF CHICAGO, ILLINOIS.

STOVE-GRATE.

SPECIFICATION forming part of Letters Patent No. 763,454, dated June 28, 1904.

Application filed July 17, 1903. Serial No. 165,900. (No model.)

To all whom it may concern:

Be it known that I, ANTONIO ALITTO, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stove-Grates, of which the following is a specification.

This invention relates to grates for stoves or the like, and is more particularly an improvement on the grate shown in the United States Patent No. 605,242, issued to me June 7, 1898. Its objects are to provide means whereby the entire grate and raking apparatus may be readily withdrawn from the stove-casing proper, means whereby the grates may be readily dumped, and means for raking the grate which may be readily operated and which will have a raking action in one direction and may be depressed while operating in the other direction to prevent the breaking of the rake-teeth.

It consists in the various novel features and details which will be pointed out and described hereinafter.

In the drawings, Figure 1 is a top plan view of the grate, showing portions of the stove-casing in which the grate is mounted. Fig. 2 is a side elevation of the grate with parts broken away to show the operative mechanism. Fig. 3 is a front elevation of the grate, also with parts broken away. Fig. 4 is a cross-sectional view showing the grate-bars in normal position. Fig. 5 is a cross-sectional view showing the grate-bars in a dumping position and a slideway for the casing. Fig. 6 is a detail showing the mechanism whereby the raking-fingers are raised after being depressed. Fig. 7 is a longitudinal vertical sectional view, parts being shown in full for greater clearness.

As shown more particularly in Figs. 1, 3, and 5, A represents the casing of a stove or range which is provided with a skeleton frame or slideway a for the grate-casing B, which is also of skeleton construction. This casing contains the entire grate apparatus and is so arranged that it may be readily slid into the stove-casing and withdrawn when desired, as for repairing or renewal. As shown in Figs. 1 and 2, the casing B is provided at the rear end with a cross-plate B^2, provided with a projecting lug b', having a slotted hole b^2 therein to receive a locking-key b^3.

When the casing is fully inserted into the stove proper, the lug b' projects through an aperture a' in the rear plate a^2 in the stove. The key is then inserted and the grate is securely locked in position. The grate-bars c are formed in two sections and with the side pieces c' are cast integrally with end plates C. The side pieces c' are also provided with segmental ribs c^2 and openings c^3. The front and rear plates C are similar in outline; but the rear plates are provided with vertical slots or openings c^4 for the rake-teeth, while the front plates are solid. The rear plates are provided with trunnions c^5, which have their bearings in brackets b^4, depending from a cross tie-bar b between the sides of the grate-casing. The front plates C are also pivoted on trunnions c^6, which also have their bearings in depending brackets b^6 from a cross-tie-bar b^7. The forward trunnions c^6 extend beyond the bearing-brackets and through the end plate B′ of the grate-casing and between the bearing-brackets and said plate and are provided with intermeshing segmental gears D D, by means of which the operation of one grate-bar set will cause a similar operation of the other set. In order to dump the grates for cleaning, one of the trunnions c^6 is provided with a crank c^7, having a handle c^8, which projects out through a slot b^8 in a cover-plate B^3 at the forward end of the grate. The cover-plate B^3 is arranged on the end plate B′ and is secured thereto by means of suitable screws. This plate B^3 is provided with an inwardly-projecting peripheral flange and forms a substantial covering for the gears D. The forward plates C engage with a stop b^5, (indicated in Fig. 1, but forming no part of this invention,) projecting from the plate B′, to hold them in normal lowered position. It will readily be seen that by means of this arrangement when the handle c^8 is turned the corresponding grate-section will be directly turned and through the medium of the gears D will turn the other grate-section in order to dump the grate-bars, as shown in Fig. 5. The arrangement of the grate-bars and the side pieces is