

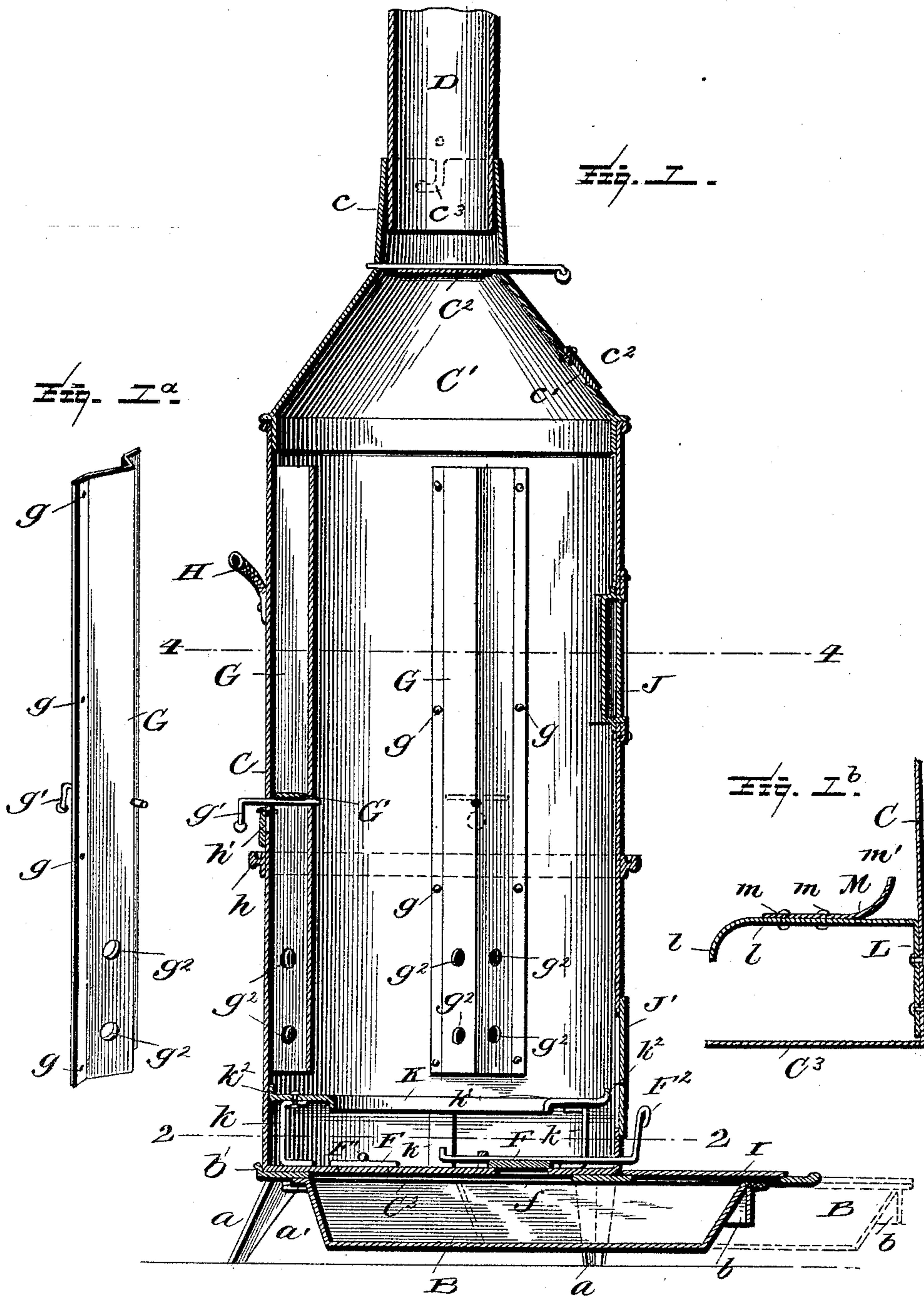
(No Model.)

3 Sheets—Sheet 1.

A. L. THOMPSON.
STRAW BURNING STOVE.

No. 497,840.

Patented May 23, 1893.



Witnesses

L. C. Hills.
E. H. Bond

Inventor

Asad L. Thompson.
per Cha. N. Fowler
Attorney

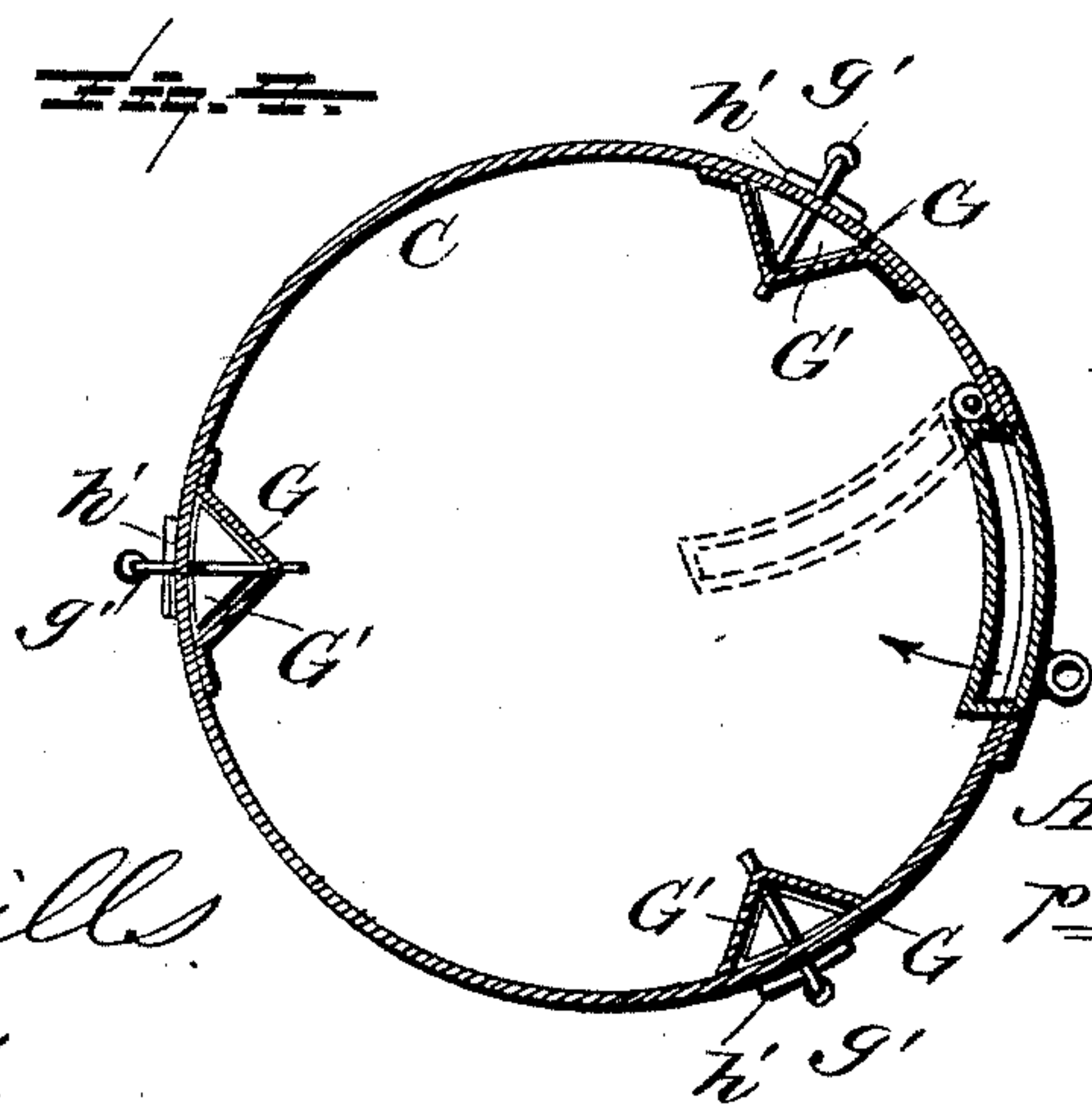
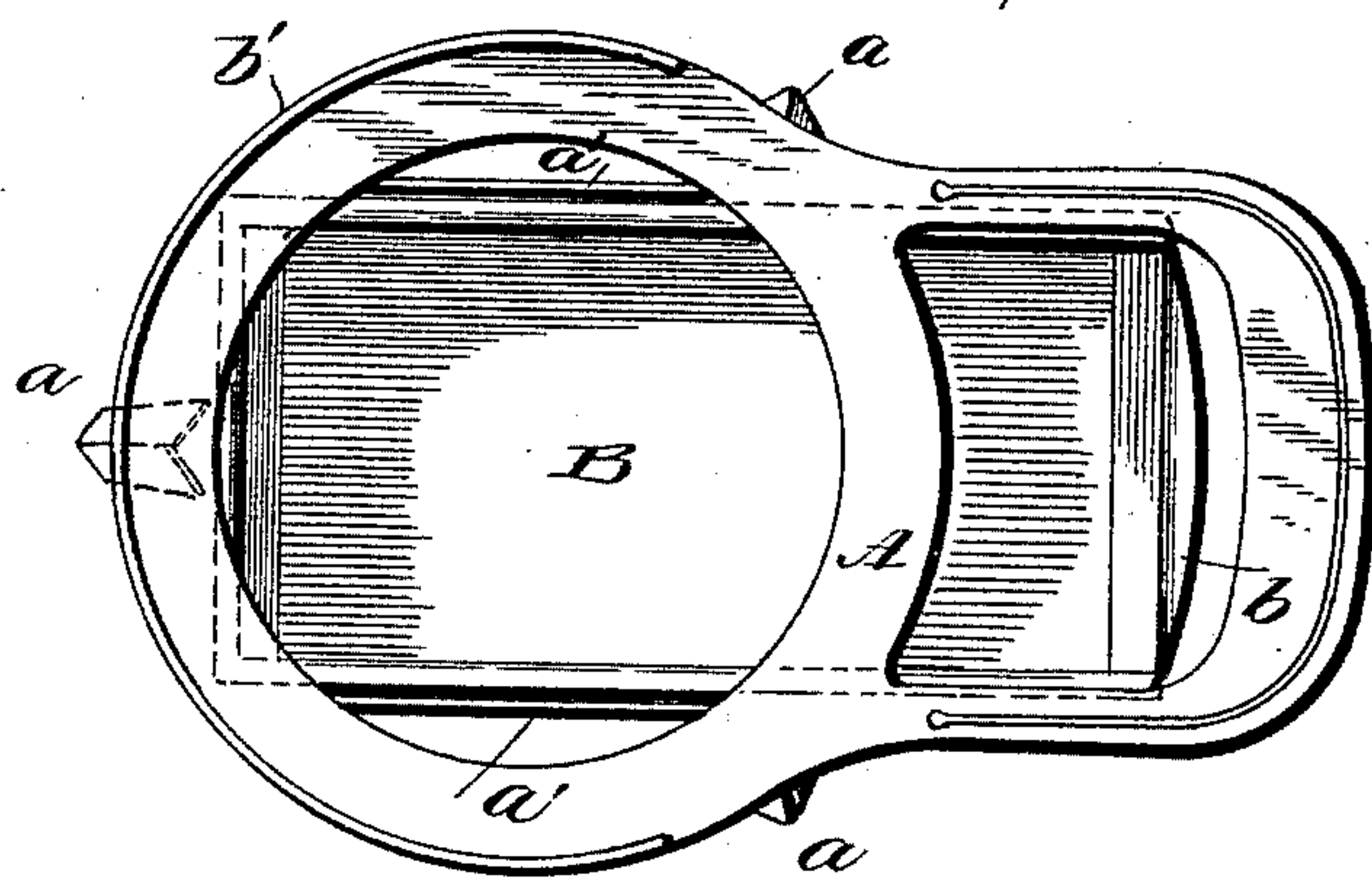
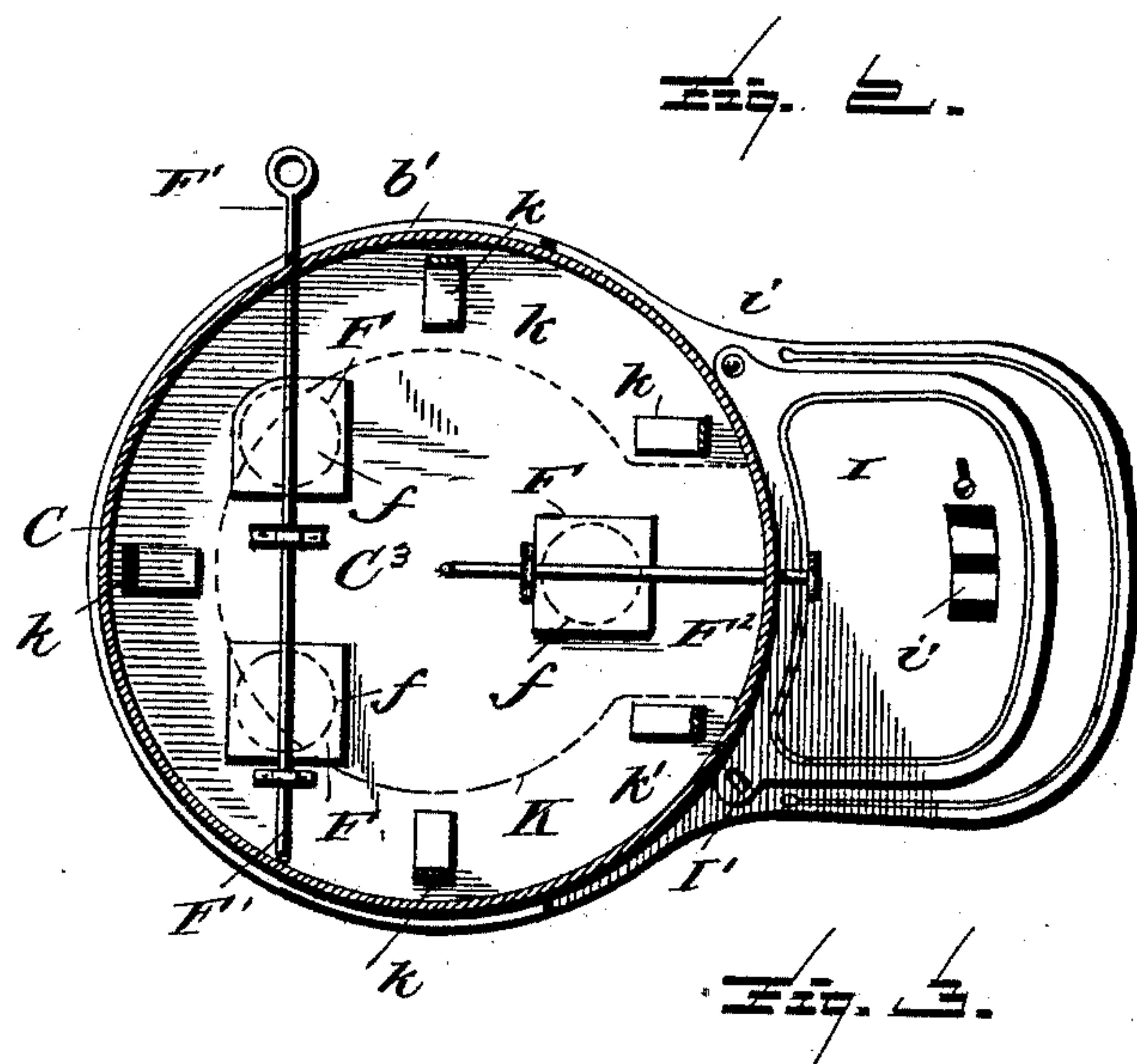
(No Model.)

3 Sheets—Sheet 2.

A. L. THOMPSON.
STRAW BURNING STOVE.

No. 497,840.

Patented May 23, 1893.



Witnesses

L. C. Hills
E. A. Bond

Inventor

Asad L. Thompson.
per Cha. St. Fowler
Attorney

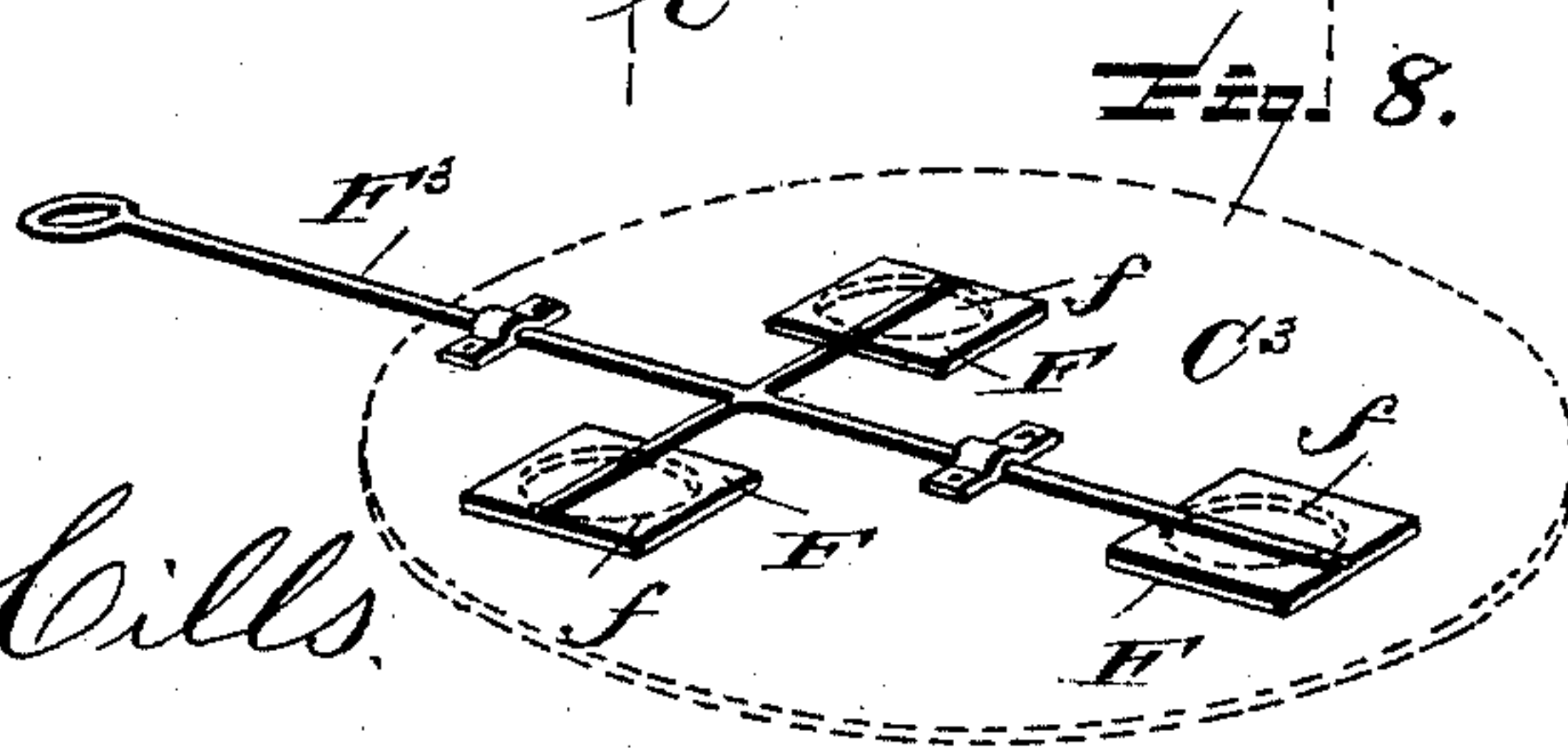
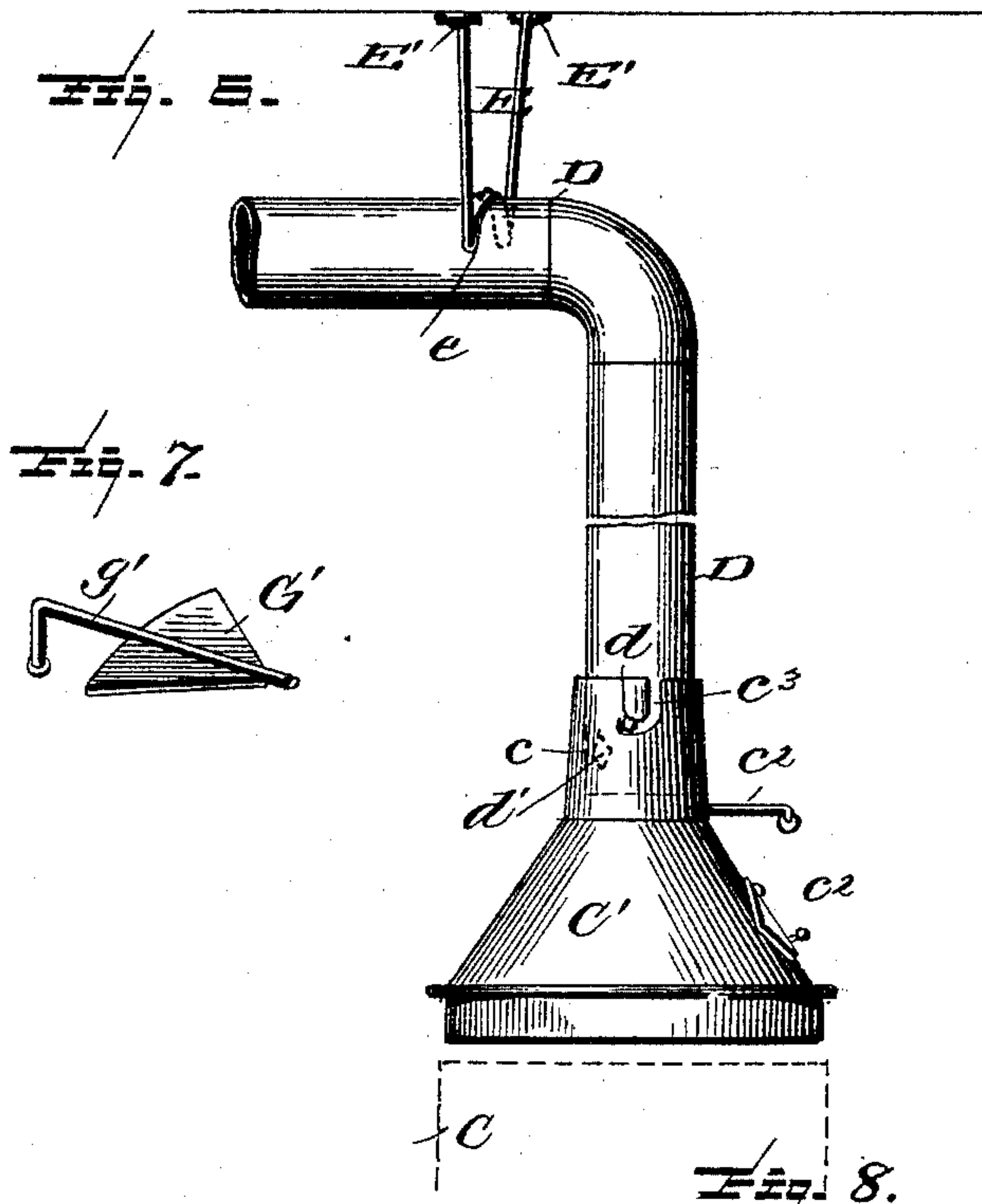
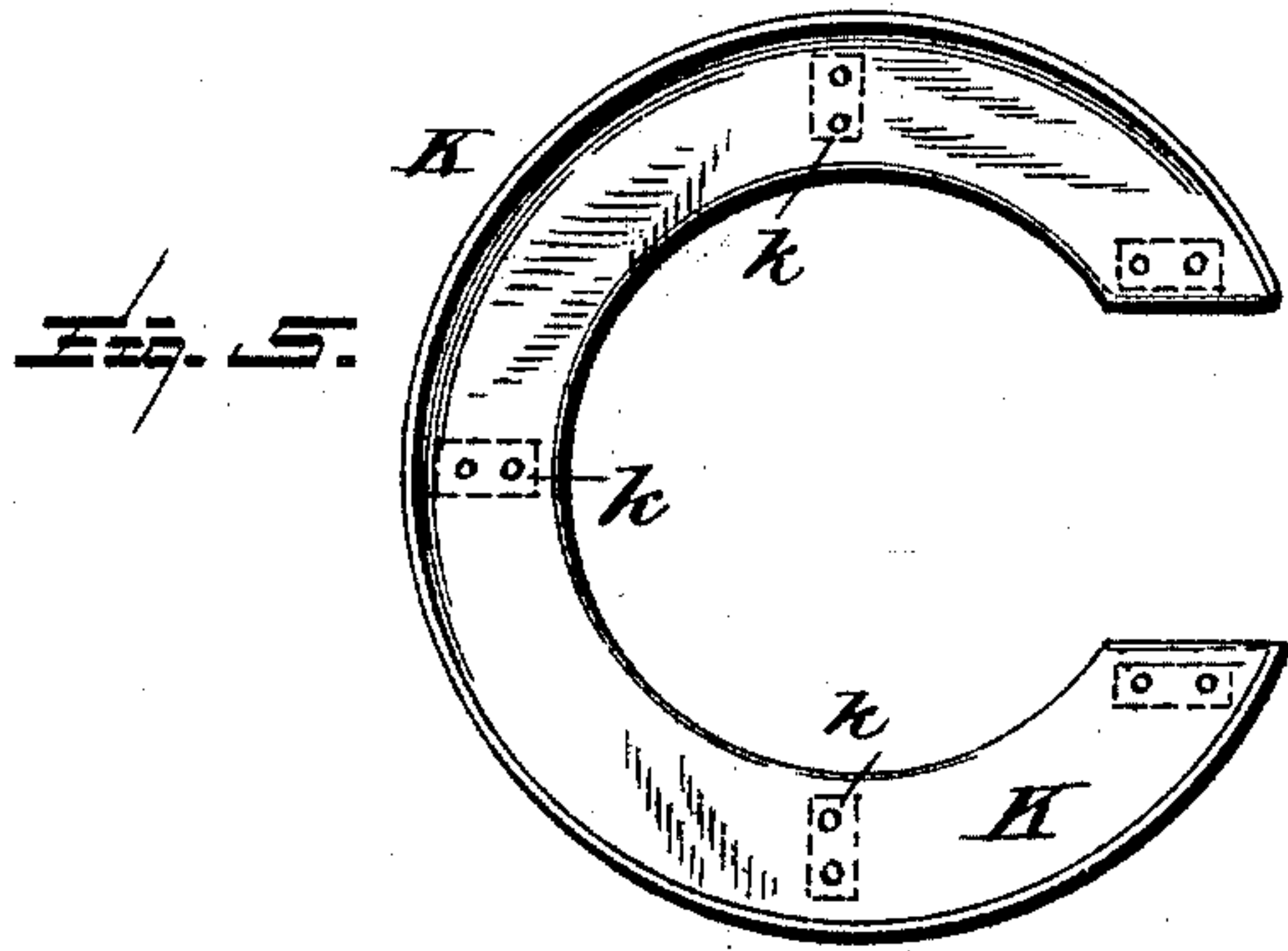
(No Model.)

3 Sheets—Sheet 3.

A. L. THOMPSON.
STRAW BURNING STOVE.

No. 497,840.

Patented May 23, 1893.



Witnesses
L. C. Hills
E. A. Bond

Inventor
Asad L. Thompson.
per Chas. N. Fowler
Attorney

UNITED STATES PATENT OFFICE.

ASAD LYMAN THOMPSON, OF BEATRICE, NEBRASKA.

STRAW-BURNING STOVE.

SPECIFICATION forming part of Letters Patent No. 497,840, dated May 23, 1893.

Application filed November 26, 1892. Serial No. 453,226. (No model.)

To all whom it may concern:

Be it known that I, ASAD LYMAN THOMPSON, a citizen of the United States, residing at Beatrice, in the county of Gage and State of Nebraska, have invented certain new and useful Improvements in Straw-Burning Stoves; 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, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in stoves for burning trash, and it has for its objects among others to provide an improved device of this character, which can be manufactured at small cost, to provide for the free burning of the trash, and to otherwise improve upon the construction of this class of stoves.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is central vertical section through my improved stove. Fig. 1^a is a perspective view of one of the flue strips removed. Fig. 1^b is a sectional detail showing a portion of the grate. Fig. 2 is a cross section on the line 2—2 of Fig. 1. Fig. 3 is a plan of the base portion and ash pan. Fig. 4 is a cross section on the line 4—4 of Fig. 1, of the cylinder or body portion looking downward. Fig. 5 is a plan of the grate. Fig. 6 is an elevation of the cover and pipe with its brace or hanger. Fig. 7 is a perspective detail of one of the dampers. Fig. 8 is a perspective detail showing the draft openings and the slides which control the same, and their operating means.

Like letters of reference indicate like parts throughout the several views in which they appear.

Referring now to the details of the drawings by letter, A designates the base which may be of any suitable shape and construction and material, in this instance shown as provided with or supported upon legs *a* and having upon its under side flanges *a'* in which the ash pan B is designed to be supported and in which flanges it is fitted to slide, being

provided with a suitable handle *b* by which it may be drawn out or pushed in when desired. This base is provided upon its upper face with an upwardly-extending flange *b'* as seen in Figs. 1 and 3 to receive the body portion C of the stove which is preferably in the form of cylinder as shown and which may be of any suitable material and desired dimensions. The center of the base is removed leaving simply a ring portion as seen in Figs. 1 and 3 which forms a rest for the bottom of the body portion of the stove.

The body portion is provided with a top or cover C', which is preferably dome-shaped as seen in Figs. 1 and 6 and which is provided with a horizontal damper C² at the junction thereof with its neck portion *c* as seen best in Fig. 1, and with a vent *c'* in its side as shown in Figs. 1 and 6 and which is designed to be closed by a swinging cover or lip *c*². The neck is formed with a slot *c*³ which extends substantially vertically and terminates at its lower end in a curved or substantially horizontal portion, to form in connection with the projecting pin *d* on the lower end of the pipe D a bayonet joint to permit of ready separation of the neck and pipe when necessary. The pipe is telescopic and is provided near its lower end with a vent *d'*.

In the bottom of the body portion C I form a plurality of draft holes *f* which are preferably arranged substantially as seen in Fig. 8, in the form of a triangle, although such arrangement is not necessary. One of these holes is formed in the bottom C³ near the front thereof so that the ashes may be raked therethrough into the ash pan when desired. These draft holes are controlled by the dampers F which are arranged to slide either over the top thereof or under the same and are designed to be regulated by suitable means, as by a handle F' extending through the side of the body portion as seen in Fig. 2 to move the two rear dampers or slides, and an independent handle F² to move the other one from the front, or as shown in Fig. 8 in which a single handle F³ is arranged to operate all of the dampers or slides simultaneously.

Within the body portion C are arranged a plurality of flues G each of which consists of a sheet metal plate bent into the form of a V in cross section as seen in Figs. 1^a and 4 and provided with holes *g* in its flanges by which

it is secured to the inner wall of said body portion. These flues extend from near the bottom to near the top of the body portion as seen in Fig. 1, and about midway of their height each is provided with a damper G' which is provided with a suitable handle g' by which it may be manipulated as seen in Figs. 1, 4 and 8. Below the damper the flue is provided with openings g^2 and just below the said damper the body portion of the stove is provided with a vent h closed by a swinging lid h' .

The device should be provided with suitable handles as H by which it is rendered portable and made easy to carry about.

I is the hearth, pivoted at one edge as at i and provided with a damper i' which is fitted to slide and at the opposite corner from its pivot it is provided with a poker hole I' as seen best in Fig. 2.

Near the upper end of the body portion is provided a feed door J which is constructed with double walls as seen in Fig. 1 to form an air space to prevent undue heating of the door, which is hung upon suitable hinges and adapted to swing into the drum or stove. Near the bottom is formed a direct draft J' as seen in Fig. 1.

It now remains to describe the grate. I have shown two forms, and will first call attention to Figs. 1, 2 and 5 in which the letter K designates the grate which is designed to be supported upon the lugs or feet k secured to the bottom of the body portion and to the upper flanges of which the grate is secured as seen in Fig. 1. This grate is substantially of the form of a horse shoe as seen in Figs. 2 and 5 and is designed to support the straw and trash at a slight distance above the bottom of the stove as shown in Fig. 1. The inner edge of the grate is turned downward as seen at k' and the outer edge is turned upward as seen at k^2 .

In Fig. 1^b I have shown the grate constructed and supported in a different manner. In this form L is a plate secured to the inner wall of the body portion and having a horizontal portion l with its inner edge turned downwardly as seen at l' and to the said horizontal portion is secured by suitable means as rivets m the surrounding portion M which has its outer edge turned up as shown at m' a short distance from the wall of the body portion as shown. This forms a very cheap and serviceable form of grate.

Modifications in details may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

The operation will be readily understood from the foregoing description when taken in connection with the annexed drawings, and a further detailed description thereof is not deemed necessary.

A stove constructed as above described has proven from actual test to produce better results and to induce a more free fire and not to become clogged by dead ashes than the

forms heretofore constructed. The ashes can be readily poked through the front draft hole into the ash pan without the use of a shovel and avoiding dust and dirt.

The feed-door swinging inwardly instead of outwardly in a stove of this character possesses advantages in that any danger is removed of breaking or otherwise injuring the door or its hinged connections as would often be the case by careless handling were the door adapted to open outwardly and also danger of the door flying open and letting out the straw or trash is avoided.

What I claim as new is—

1. The combination with the body portion and grate, of the vertical dampered flues within the body portion, as set forth.

2. The combination with the body portion and grate, of the vertical flues within the body portion and provided with dampers and openings below the dampers, as set forth.

3. The combination with the body portion and the grate, of vertical flues within the body portion provided with dampers and openings and vents in the wall of the body portion below the dampers and having covers, as shown and described.

4. The combination with the body portion having vent at its upper end, and the grate, of the vertical dampered flues with openings below the dampers, vents in the body portion below the dampers and having covers, and the dampered draft holes in the bottom of the body portion, as set forth.

5. The combination with the body portion, of a flue within the same consisting of a vertical strip of sheet metal having flanges secured to the inner wall of the body portion, and provided with holes near its lower end, and a triangular damper in said flue and provided with a handle, as set forth.

6. The combination with the body portion having draft holes in its bottom, the grate, and the vertical flues, of dampers for the said draft holes, and means for operating the dampers, as set forth.

7. The combination with the body portion formed in its bottom with draft holes, of dampers arranged to close said holes, and a handle and connections whereby all of said dampers may be moved simultaneously, substantially as specified.

8. The combination with the body portion with its draft holes in its bottom and dampers for said holes, of a metal strip secured to the inner wall of the body portion and having horizontal portion with down-turned inner edge, and a surrounding strip secured to said horizontal portion and having its outer edge turned upward, as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ASAD LYMAN THOMPSON.

Witnesses:

FRED S. WILLIAMS,

C. A. LOVELACE.