

No. 712,662.

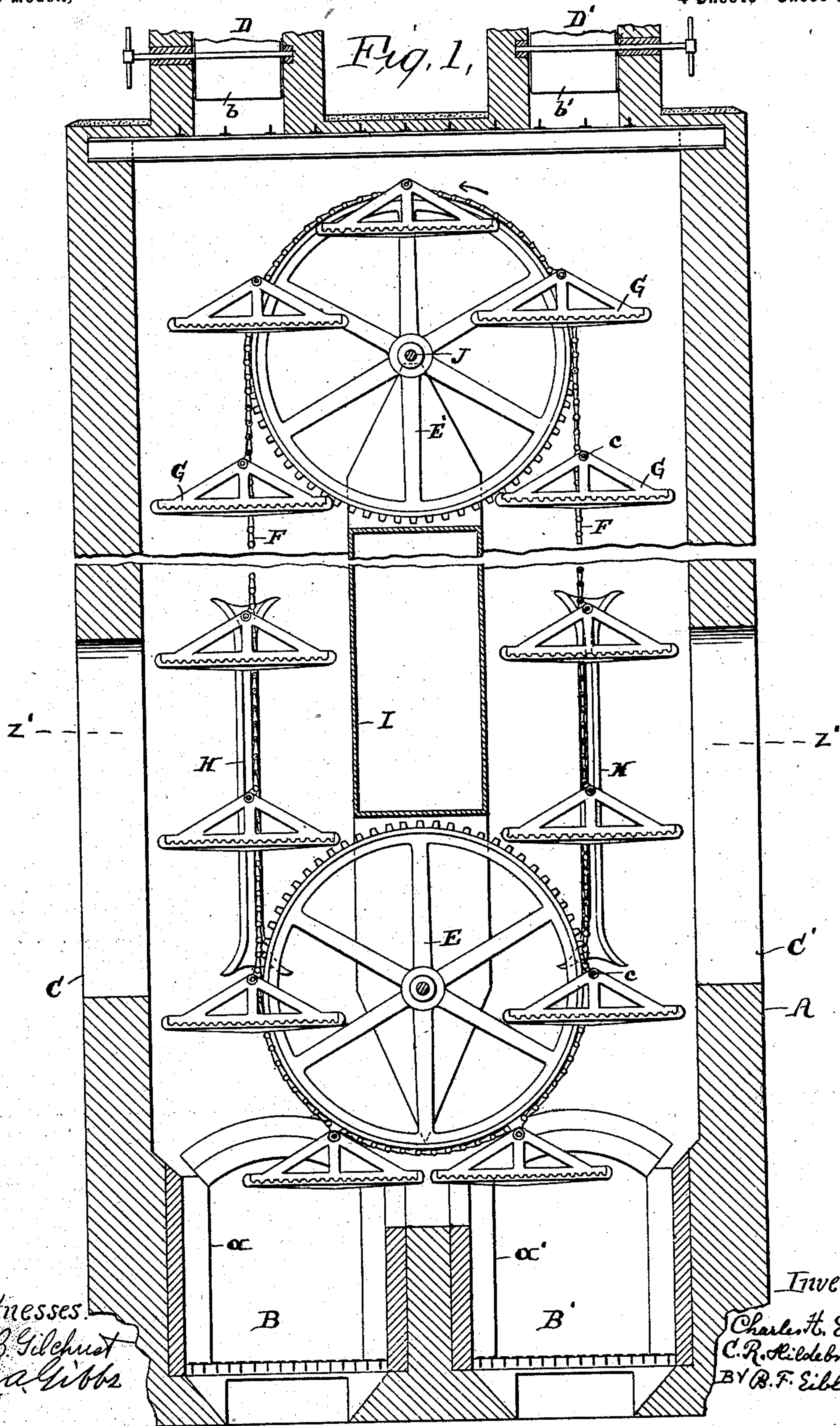
Patented Nov. 4, 1902.

C. H. EVERS & C. R. HILDEBRANDT.  
APPARATUS FOR SMOKING MEATS.

(Application filed Apr. 25, 1902.)

(No Model.)

4 Sheets—Sheet 1.





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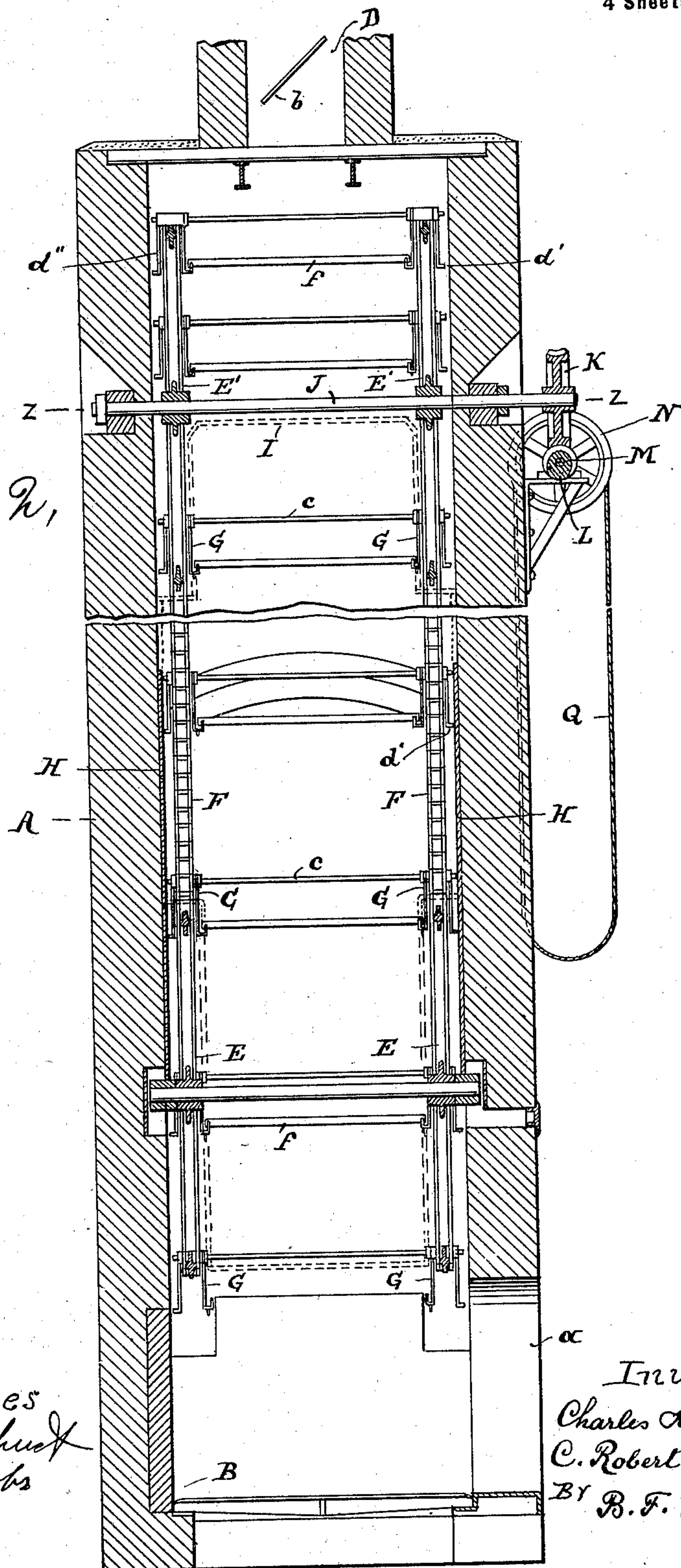
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(No Model.)

*Fig. 2,*



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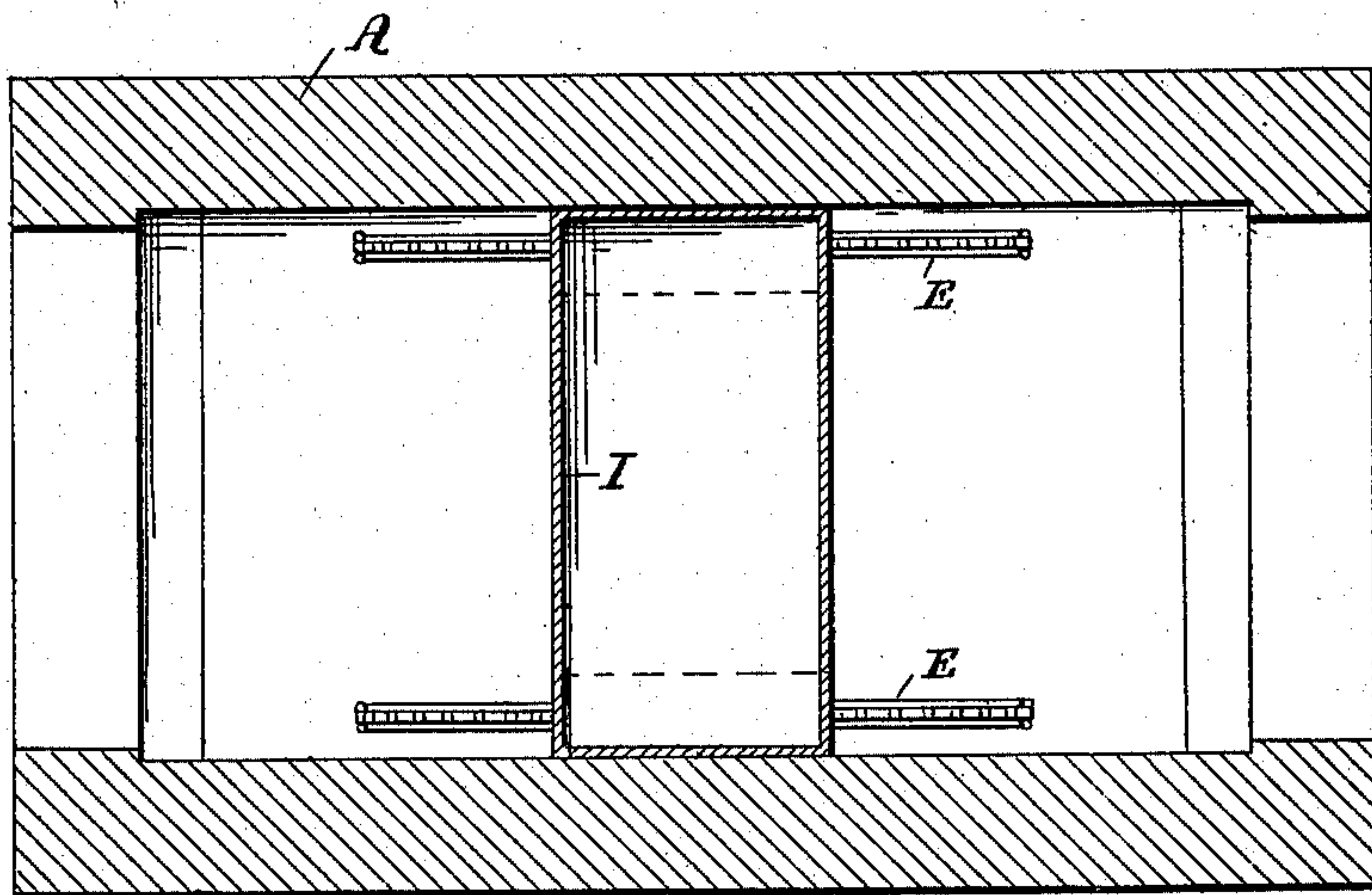
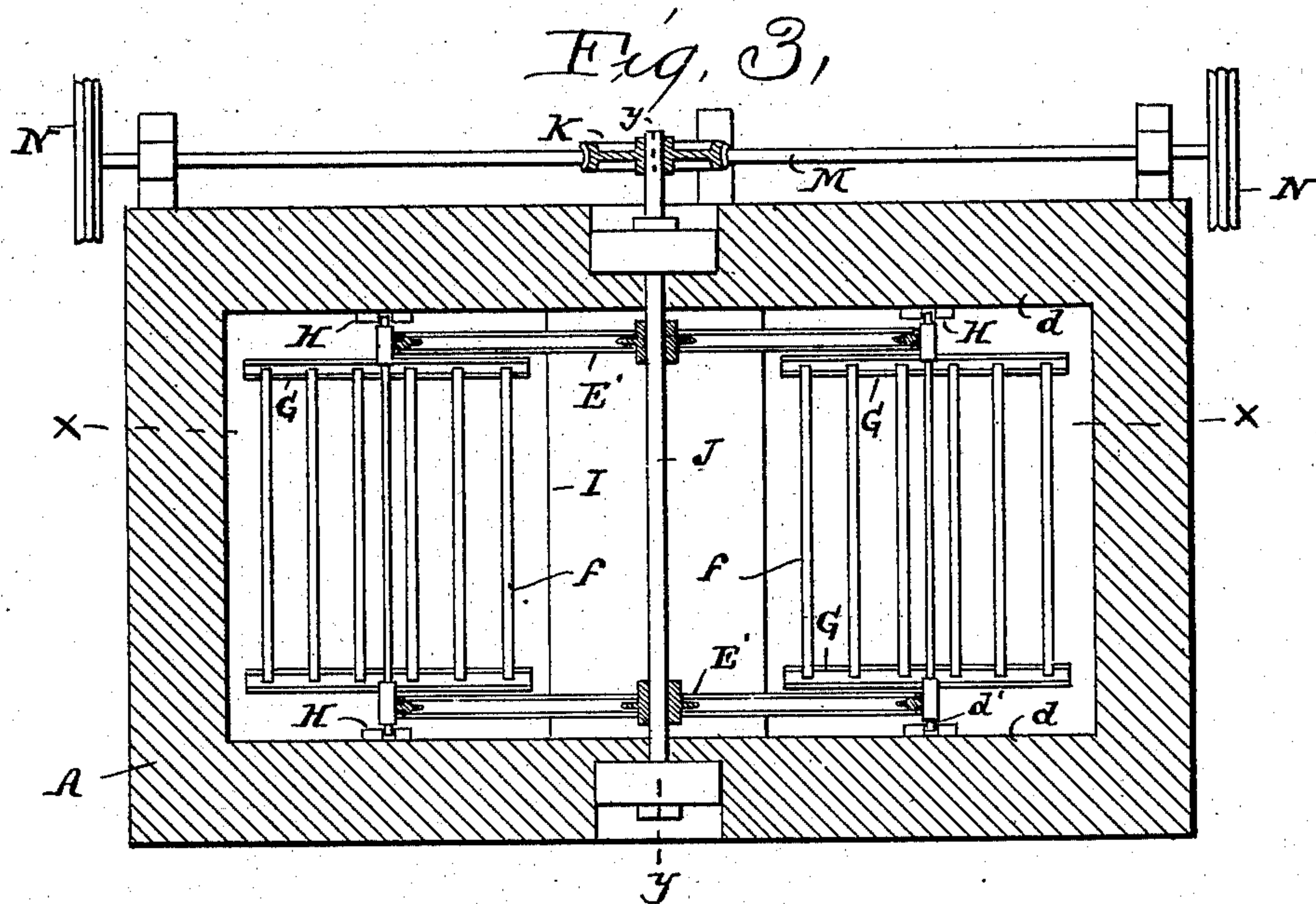
**C. H. EVERS & C. R. HILDEBRANDT.**

## APPARATUS FOR SMOKING MEATS.

(Application filed Apr. 25, 1902.)

(No Model.)

**4 Sheets—Sheet 3.**



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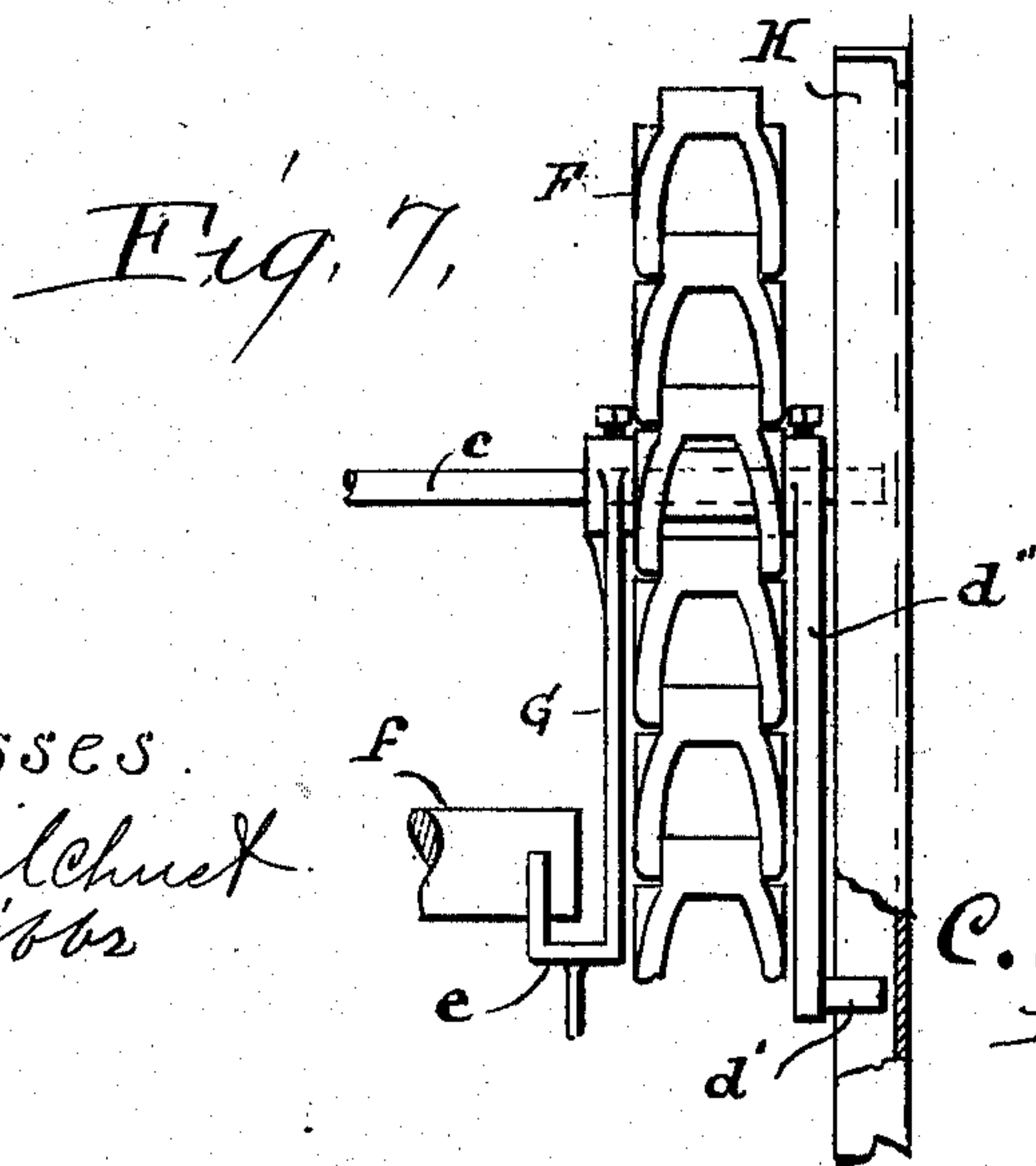
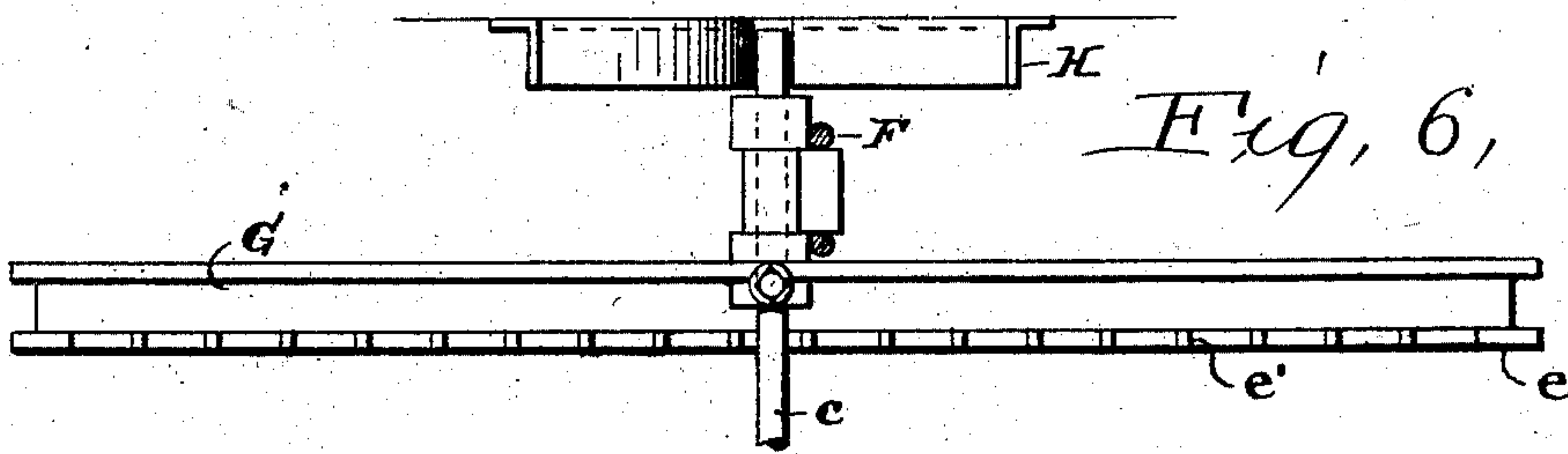
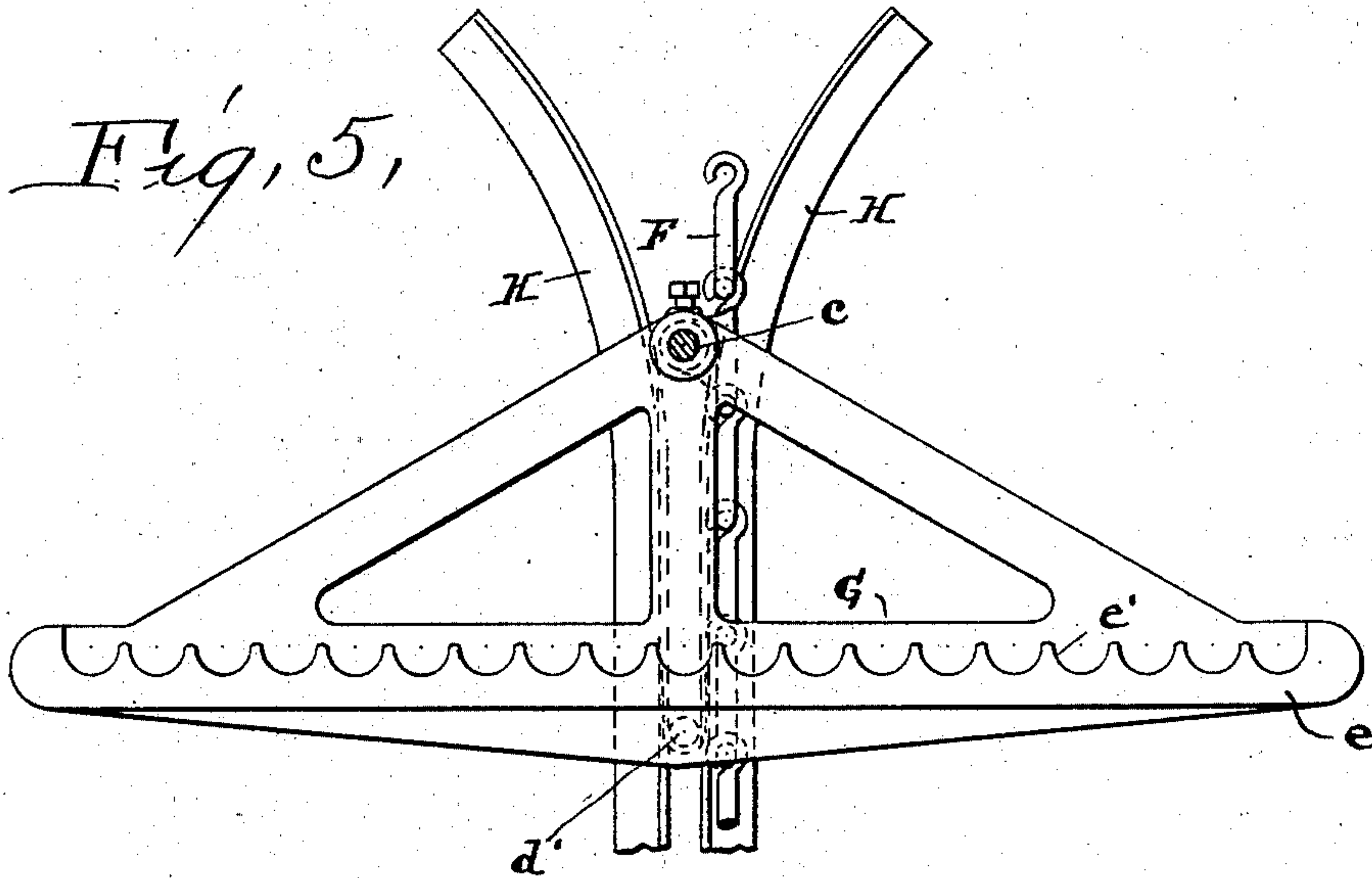
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4 Sheets—Sheet 4.



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# UNITED STATES PATENT OFFICE.

CHARLES H. EVERS AND CARL ROBERT HILDEBRANDT, OF CLEVELAND,  
OHIO.

## APPARATUS FOR SMOKING MEATS.

SPECIFICATION forming part of Letters Patent No. 712,662, dated November 4, 1902.

Application filed April 25, 1902. Serial No. 104,675. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES H. EVERS and CARL ROBERT HILDEBRANDT, citizens of the United States of America, and residents of Cleveland, county of Cuyahoga, and State of Ohio, have invented certain new and useful Improvements in Apparatus for Smoking Meats, Sausages, &c., of which the following is a specification.

Our invention relates to means adapted for "smoking" meats, sausages, &c.; and the object of our invention is to provide an apparatus for such purposes which is efficient in point of capacity and economy, convenient in point of manipulation, and freed of conditions which are injurious to attendants. We attain these objects in and with an apparatus constructed and equipped substantially as shown in the accompanying drawings, in which—

Figure 1 represents a vertical sectional view on line  $x x$ . (See Fig. 3.) Fig. 2 is another vertical sectional view on line  $y y$ . (See Fig. 3.) Fig. 3 is a horizontal sectional view on line  $z z$ . (See Fig. 2.) Fig. 4 is another horizontal sectional view on line  $z' z'$ ; and Figs. 5, 6, and 7 are views showing one of the carriers, the chain to which it is attached, and the guide-plates, said views being respectively a side elevation, plan, and edge view of the carrier, the remaining parts being in their relative positions.

Like letters of reference denote like parts in the drawings and specification.

Substantially the apparatus comprises a smoke-house, an endless hoisting contrivance by which the meats (principally sausages) are subjected in suspended condition to the smoke, which rises from the fireplaces in the lower part of said house or the brick inclosure constituting same, and suitable means to manipulate said hoisting contrivance.

The smoke-house A represents a comparatively high structure built of masonry. In the lower part thereof there are located the fireplaces B B', with doors, as at  $a a'$ . Part way up this structure are openings C C', by way of which the articles to be smoked are taken in and out of the smoke-house. On top of the house project the chimneys D D', each of which is provided with a damper, as at

b b. (See Figs. 1 and 2, which figures illustrate the house in broken contracted condition.)

The hoisting contrivance comprises pairs of parallelly-journaled sprocket-wheels E E', endless chains F, engaging said wheels, and a plurality of carriers G, which at suitable intervals are fastened to said chains. In close proximity over the fireplaces are mounted the wheels E E, while the wheels E' E' are as far distant therefrom as room will permit, they being near the top or the chimneys of the structure. Some of the chain-links are adapted for reception of the rods c, and placed upon the latter are the brackets or carriers G. (See Figs. 5, 6, and 7.) As shown, these brackets are fastened to the rods by means of a set-screw. Other means, however, may answer the purpose equally as well. Placed along the walls  $d d$  of the structure are grooved guide-plates H H, and engaging said plates are the rods c, as well as the pins  $d'$ , which project from the arms  $d''$ , and the latter being securely connected with said above-mentioned rods. With such or similar provisions it is possible to maintain the carriers in horizontal position regardless of the position of the load depending from said carriers. The terminals of the plates H H are flaring to facilitate entering of the rods c and pins  $d'$  into the grooves of said plates. As will be seen, the plates H H are located at points opposite the openings or doors C C'. Inasmuch as each carrier engages the plate at two points, (the rod c and pin  $d'$ ), the carrier is held fixedly against any tilting movement or a movement away from the opening in rear of which it is being carried, thus holding the carriers in a position where access can be had to them without liability of a swaying movement of the chain or a tilting movement of the carrier. The inner flanges e of the carriers G are notched or scalloped, as seen at  $e'$ , Figs. 1, 5, 6, and 7, and into these scallops are laid the transverse poles f, by which are suspended the goods to be smoked. A partition I, of fireproof material, extends upwardly from near the fireplaces to a height about level with the upper wheel-shaft J. (See Figs. 1 and 2.) In the latter figure said partition is indicated by dotted lines only in Fig. 2 simply to admit of illustration of more vital



parts—namely, the hoisting mechanism. The purpose of said partition is twofold—namely, to exclude a draft of air through the smoke-shaft when the doors covering the openings of C C' are removed during the intervals when and while the goods are deposited upon the carriers and removed therefrom after same have been smoked. Furthermore, a division of the smoke volumes can be effected, since it is intended to create and maintain a more intense volume of smoke along the discharge side of the apparatus than there is in the charging side. Another means of regulating the smoke volumes is furnished by the dampers *b b'*. Assuming that the wheels turn in direction of the arrow, then the goods would be entered through the opening C and removed through the opening C'. A means for manipulating this chain conveyer is furnished by the screw-wheel K upon shaft J, a worm-wheel L upon shaft M, and the rope-pulleys N N. The latter shaft M is suitably journaled to carry the worm L in engagement with the wheel K, while the pulleys upon the terminals of said shaft enable moving of the conveyer from each side—entrance side as well as discharging side. Owing to the engagement of the worm L into the wheel K, the sprocket wheels and chains will remain in inert condition in whatever position they may be adjusted regardless of uneven loads upon the chains, which may exist during charging and discharging of the goods. Not unless power is applied by pulling the rope loops Q in one direction or the other is it possible for the conveyer to move or to be moved. Furthermore, with an apparatus constructed as shown and set forth one is enabled to handle the goods to be smoked without becoming exposed to the smoke within the structure. Therefore one will not experience the bodily injury which has to be encountered in smoke-houses of the ordinary construction.

What we claim, and desire to secure by Letters Patent, is—

1. An apparatus of the character described, comprising a fireproof inclosure of stack formation; fireplaces in the base part thereof; divided flues extending vertically from said fireplaces; outlets from said flues; opposing openings or doors in the walls of said apparatus above the fireplaces to permit access to the flues; and an endless carrier located within said flues, said carrier having a movement

passing successively from one opening or door, vertically through said flues, to the other opening or door.

2. An apparatus of the character described, comprising a fireproof inclosure of stack formation; fireplaces in the base part thereof; divided flues extending vertically from said fireplaces; outlets from said flues; opposing openings or doors in the walls of said apparatus above the fireplaces to permit access to the flues; an endless carrier located within said flues, said carrier having a movement passing successively from one opening or door, vertically through said flues, to the other opening or door; and guideways located at points opposing said openings or doors for holding the carrier fixedly against tilting or swaying movement.

3. In a meat-smoking apparatus the combination with a brick inclosure having inlet and exit openings, of two rotative shafts located respectively near the base and top within the brick inclosure of said apparatus, a pair of sprocket-wheels mounted upon each of said shafts, a pair of endless chains engaging said wheels, a series of brackets having pivotal connection with said chains by means of transverse rods and special links, guide-arms fastened to said rods, guide-plates for said rods and arms, secured to opposite walls of the brick inclosure at points opposite said inlet and exit openings, and poles extending across and between said brackets to carry the meat to be smoked.

4. In a meat-smoking apparatus the combination with a duplex chain conveyer of pivotal brackets provided with horizontal notched bars, poles extending between and across said brackets whereupon the articles to be smoked are hung, a screw and worm gear for driving said conveyer and rope pulleys for turning said gears whereby said conveyer will be held positively against movement excepting upon rotation of the screw and worm gears, all constructed and arranged substantially as and for the purpose set forth.

Signed at Cleveland, Ohio, this 2d day of April, 1902.

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C. ROBERT HILDEBRANDT.

Witnesses:

BERNH. F. EIBLER,  
DORA HECKLER.