

(No Model.)

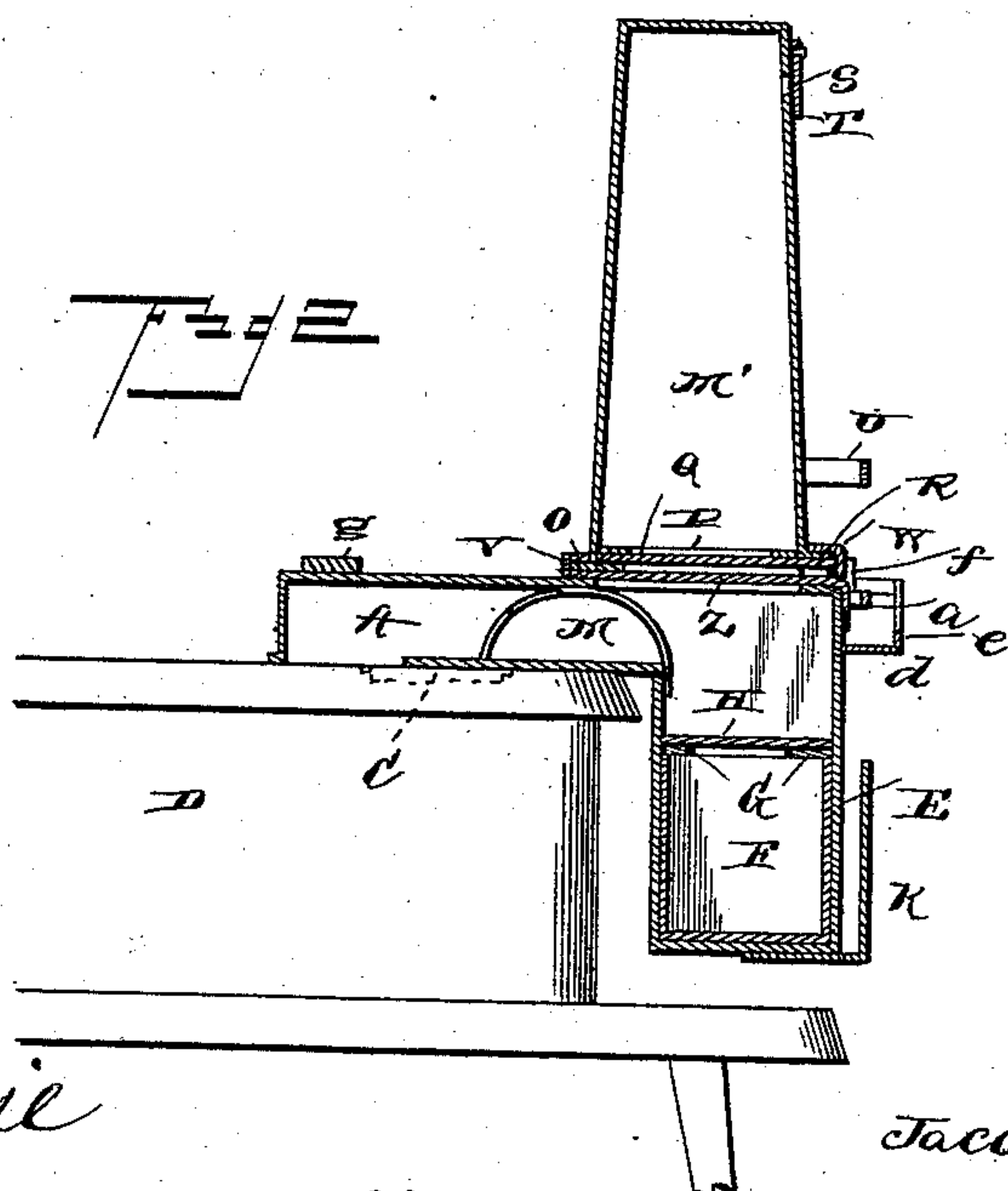
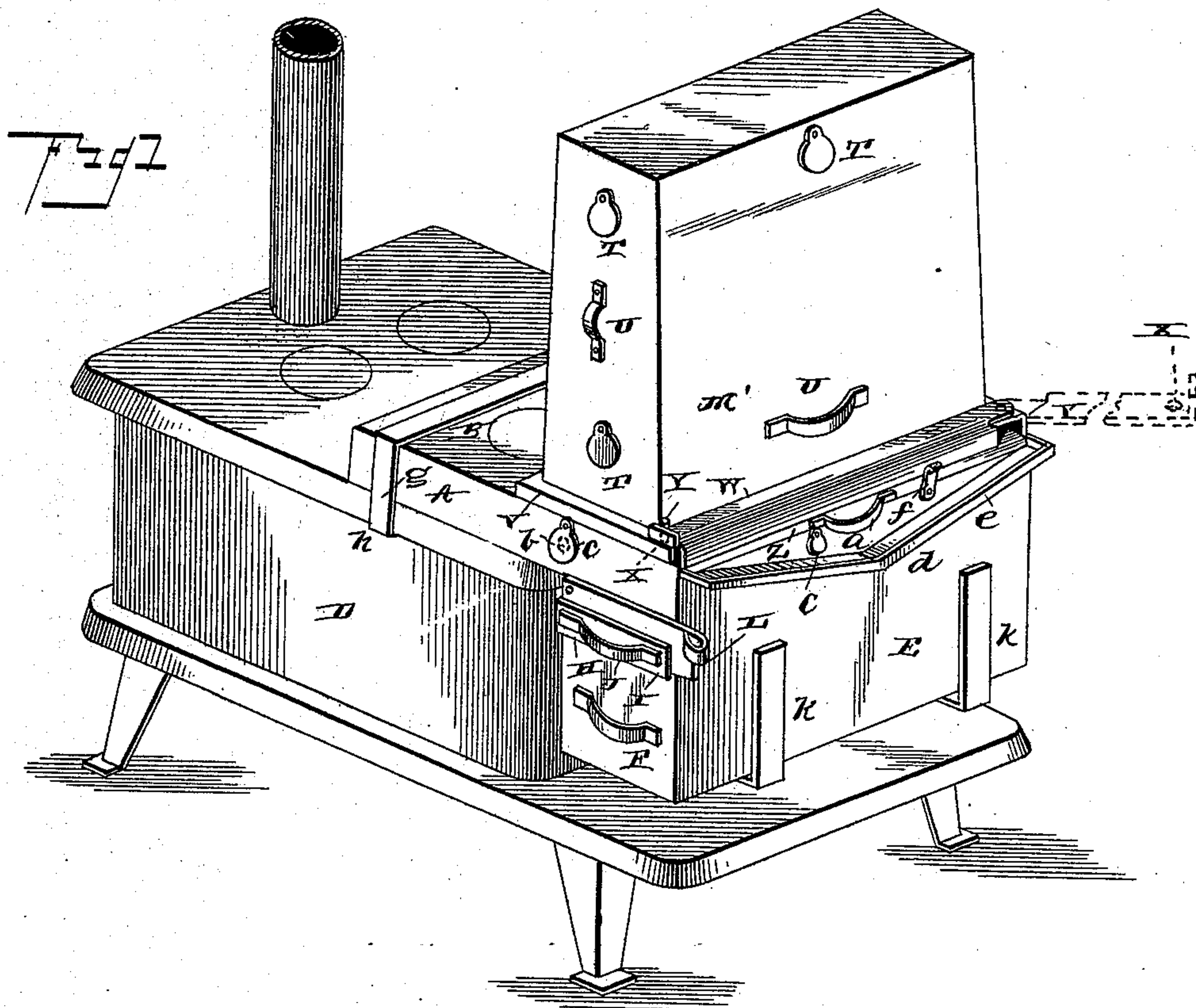
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J. L. HERMAN.

STRAW BURNING ATTACHMENT FOR STOVES.

No. 413,664.

Patented Oct. 29, 1889.



Witnesses
John Mirie
Wm. Baggett

Inventor
Jacob L. Herman
By his Attorneys
C. A. Snow & Co.

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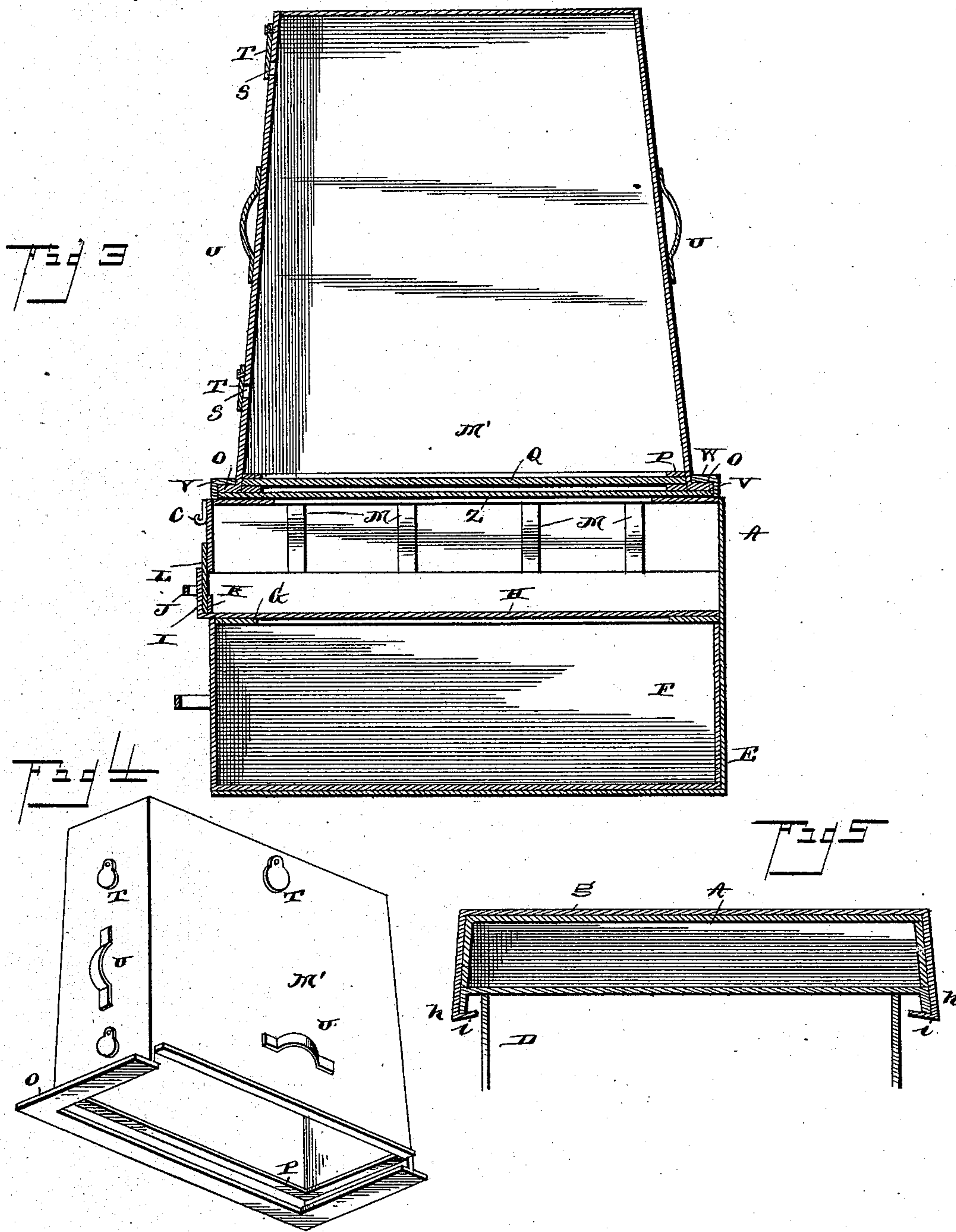
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UNITED STATES PATENT OFFICE.

JACOB L. HERMAN, OF REDFIELD, DAKOTA TERRITORY.

STRAW-BURNING ATTACHMENT FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 413,664, dated October 29, 1889.

Application filed April 11, 1889. Serial No. 306,910. (No model.)

To all whom it may concern:

Be it known that I, JACOB L. HERMAN, a citizen of the United States, residing at Redfield, in the county of Spink and Territory of Dakota, have invented a new and useful Straw-Burning Attachment for Stoves, of which the following is a specification.

This invention relates to straw-burning attachments for cooking-stoves; and it has for its object to provide a device of this class which may be readily attached to any ordinary cooking-stove without injuring or defacing the latter or changing its construction in any respect.

The invention consists in the improved construction and arrangement of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of my improved straw-burning attachment, showing the same applied to an ordinary cook-stove in position for operation. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view taken through the fuel-chamber and combustion-chamber and the ash-pit. Fig. 4 is a perspective view of the fuel-chamber detached. Fig. 5 is a vertical transverse sectional view taken through the clamp which connects the straw-burning attachment to the cook-stove.

The same letters refer to the same parts in all the figures.

A designates the horizontal box or casing, the rear part of which is adapted to rest upon the front end of an ordinary cook-stove, and is provided with griddle-holes B B registering with the front griddle-holes C C in the cook-stove D. The rear part of the said casing A may be constructed without a bottom, or if constructed with a bottom the latter will be provided with openings registering with the said griddle-holes. The front end of the casing A has a downward extension E, which forms the ash-pit, and in which is arranged a transversely-sliding drawer F, to receive the ashes.

G G are cleats arranged in the casing E above the drawer F, and support a slide H, which completely covers the said ash-pan or receptacle. The outer end of the slide H is provided with a flange I, having a handle J,

and with a lug K, and to the side of the casing A is pivoted a door L. The latter is adapted to close the opening at the front end of the slide H, so as to shut off the draft and at the same time prevent the withdrawal of the said slide H by entering between the flange I and lug K of the latter. The rear side of the downwardly-extending casing E is connected with the top of the casing A by a series of curved grate-bars M M, which not only serve to confine the fuel in the combustion-chamber, but also to brace the parts of the casings.

M' designates the fuel-box, which consists of a suitable casing, made, preferably, rectangular in horizontal section, tapering toward its upper end, which is closed and provided at its lower end with laterally-extending flanges O O, and with cleats P P, adapted to support the sliding cover Q, having a suitable handle R.

The fuel-box is provided with several openings S S, covered by means of pivoted slides T, said openings serving partially as draft-openings, and also to enable the rod or poker to be inserted into the fuel-box for the purpose of forcing the fuel in a downward direction when it shall be necessary to do so.

The fuel-box is provided with suitable handles U U, by means of which it may be conveniently manipulated.

The upper front side of the casing A is provided directly above the downwardly-extending casing E with flanges V V, which are adapted to engage the flanges O of the fuel-box, which latter may thus be slid into position above the combustion-chamber, and retained by means of the said flanges V.

To one of the front upper corners of the casing A is pivoted a locking-strip W, having a hole X at its free end, adapted to engage a pin Y at the opposite corner. This locking-strip serves, after the fuel-box has been placed in position, to retain it securely and to prevent its becoming accidentally detached.

Z designates a slide fitted between the flanges V of the casing A, below the fuel-box, and adapted to be operated independently of the latter. Said slide is located below the locking-strip W, so that the latter, while securing the fuel-box in position, shall not interfere with the operation of the said slide.

The latter is provided at its front edge with an operating-handle *a*.

The combustion-chamber of my improved straw-burning attachment, which consists of the space bounded by the slides H and Z, the grate-bars M, and the walls of the respective casings, is provided with suitably-located draft-openings *b*, covered by pivoted slides *c*.

d is a hearth-plate, attached to the front wall of the casing, inclined from the ends downwardly toward the center, and provided at its outer edge with a flange *e*. This is to prevent fuel and ashes from dropping upon the floor.

f designates a turn-button pivoted to the front wall of the casing, and which, when desired, may serve to secure the locking-strip W and the slides Q and Z in position.

g designates a clamp, consisting of a strip of band-iron or other suitable material adapted to be fitted over the rear end of the casing A, which rests upon the cook-stove, and having downturned ends *h h*, the ends of which are provided with inturned lugs *i*, adapted to extend under the side flanges of the top plate of the cook-stove, and thereby secure my improved straw-burning attachment in position upon the latter. By the use of this clamping device, which may be readily slid into position over the rear end of the casing A after the latter has been adjusted upon the cook-stove, the use of bolts or other fastening devices is completely avoided, and my improved attachment may thus be securely attached without necessity for injuring or defacing the cook-stove.

The operation and advantages of this invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. The fuel-box may be readily removed from the casing and filled with straw or other fuel of a similar nature, which is packed firmly in the said box, after which the slide Q of the latter is placed in position. This retains the fuel in the box, when the latter is inverted and slid into position upon the casing A. When this has been done the slide Q is removed and adjusted in the holders *k k*, which are attached to the front side of the casing E. The fuel-box is then secured in position by the locking-strip, and the device is now ready for operation. The supply of fuel to the combustion-chamber may be regulated by the slide Z, and the draft is from the combustion-chamber between the grate-bars M M, through the casing A, down through the front griddle-holes of the cooking-stove, through the combustion-chamber of the latter, and through the stove-pipe to the chimney or exit-flue. It will thus be seen that the products of combustion make the entire circuit of the cook-stove before escaping into the chamber, and that the cook-stove and its oven are therefore available for cooking purposes as well as if the fire were made directly in the combustion-chamber of the said cook-stove. The capac-

ity for cooking purposes of my improved straw-burning attachment is consequently equal to that of the cook-stove to which it is applied. The intensity of the heat may be regulated by the draft-openings herein described, and when it shall be desired to replenish the contents of the fuel-chamber, this may be done while the fire is burning by closing the slide Z entirely while the said fuel-chamber is removed and filled. Owing to the arrangement of the slide H above the ash-pan, the latter may also be removed and emptied of contents while the fire is burning, without danger of cinders or live coals dropping upon the floor.

The construction of my improved straw-burning attachment is simple and inexpensive, and it may, as already stated, be easily applied to any cook-stove of ordinary construction without changing the construction of said cook-stove in any respect.

Having thus described my invention, I claim—

1. In a straw-burning attachment for cook-stoves, the combination of the horizontal casing having the downwardly-extending ash-pit, and the grate-bars connecting the rear wall of said ash-pit with the top of the casing, substantially as herein set forth.

2. In a straw-burning attachment for cook-stoves, the combination of the horizontal casing having the downwardly-extending ash-pit, the grate-bars connecting the rear wall of said ash-pit with the top of the casing, and the fuel-box mounted removably upon the top of the casing directly above the ash-pit, substantially as herein set forth.

3. In a straw-burning attachment for cook-stoves, the herein-described horizontal casing adapted to rest upon the top of the cook-stove and having griddle-holes registering with the griddle-holes in the latter and provided with the downwardly-extending ash-pit, and the curved grate-bars connecting the rear wall of said ash-pit with the top of the casing, in combination with the fuel-box mounted removably upon said casing directly above the ash-pit, and an adjustable slide separating said fuel-box from the combustion-chamber, substantially as and for the purpose set forth.

4. The combination, with a cook-stove having a flanged top plate, of a straw-burning attachment comprising a casing mounted upon the top plate of the stove, projecting at one end, and having a downwardly-extending ash-pit and a fuel-box mounted removably upon the projecting end of the casing above the ash-pit, and a clamping or connecting strip arranged across the rear end of the casing and provided at its ends with downturned arms, the lower ends of which are provided with inturned lugs engaging the flange of the top plate of the stove, substantially as set forth.

5. The combination of the horizontal casing, having the downwardly-extending ash-

pit, the sliding box or ash-pan, the slide arranged above the latter and provided at its outer end with a flange and an upwardly-extending lug, and the door pivoted to the 5 outer side of the casing and adapted to enter between the lug and the flange of said removable slide, substantially as herein set forth.

10 6. In a straw-burning attachment for cook-stoves, the combination of the horizontal casing having the downwardly-extending ash-pit, the grate-bars connecting the rear wall of said ash-pit with the top of the casing, the removable fuel-box provided with suitable

draft-openings covered by pivoted slides, the 15 adjustable slide arranged between the fuel-box and the combustion-chamber, and the slides arranged to cover suitable draft-openings in the walls of the latter, substantially as and for the purpose herein shown and 20 specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JACOB L. HERMAN.

Witnesses:

D. N. HUNT,

CHAS. A. HITCHCOCK.