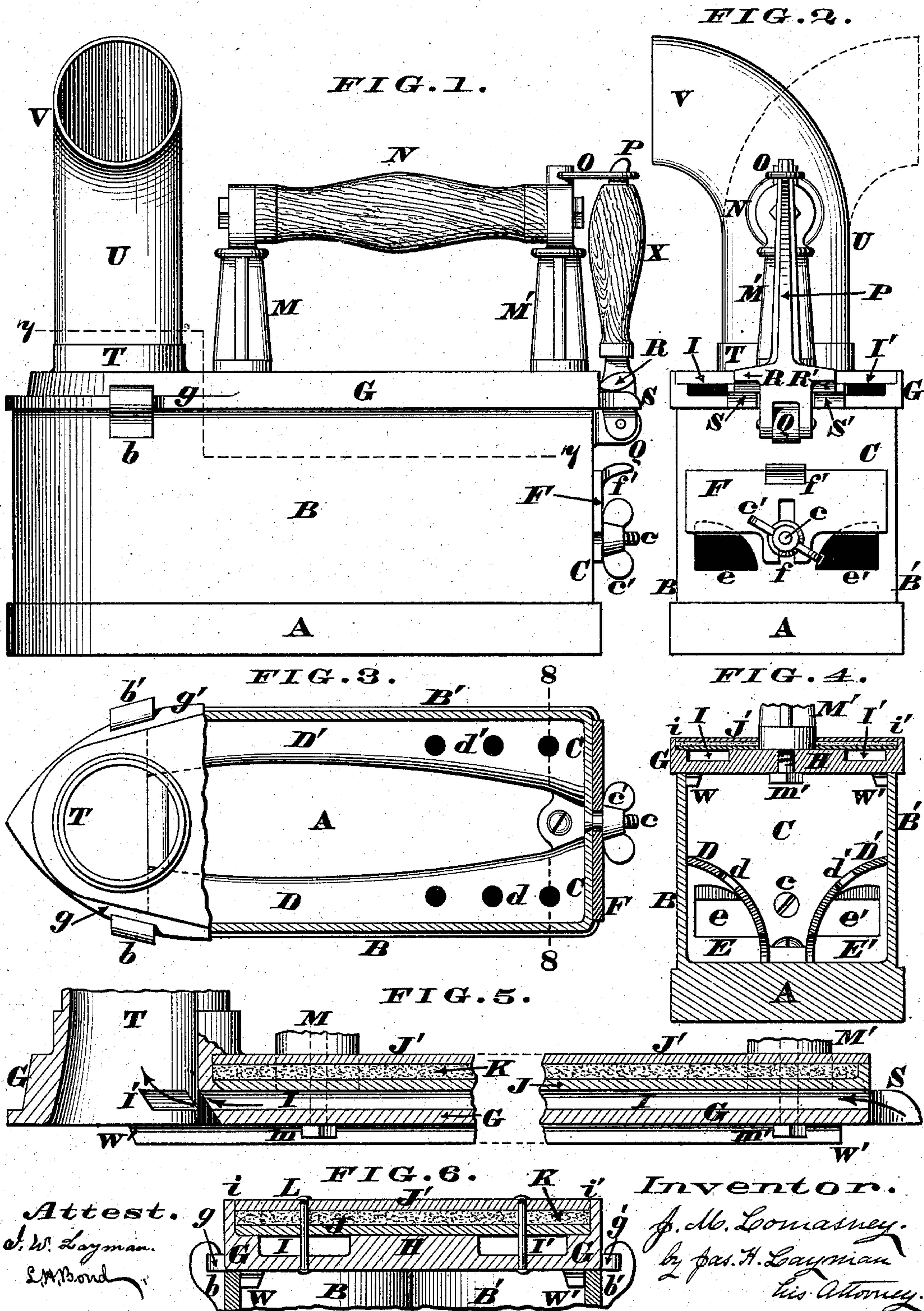


J. M. LOMASNEY.
Box Smoothing-Iron.

No. 224,552.

Patented Feb. 17, 1880.



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UNITED STATES PATENT OFFICE.

JOHN M. LOMASNEY, OF CINCINNATI, OHIO.

BOX SMOOTHING-IRON.

SPECIFICATION forming part of Letters Patent No. 224,552, dated February 17, 1880.

Application filed September 29, 1879.

To all whom it may concern:

Be it known that I, JOHN M. LOMASNEY, of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in Box Smoothing-Irons, of which invention the following is a specification.

This invention relates to those devices commonly known as "box smoothing-irons;" and the first part of my improvements comprises a peculiar combination of cam-lever, eccentrics, and lugs, wherewith the rear end of the lid is securely locked to the body or box of the iron.

The second part of my invention consists in combining with the aforesaid cam-lever, eccentrics, and lugs a shackle that maintains said lever in its erect position when the lid is clamped to the body of the iron. This shackle is coupled to the rear standard of the handle, as hereinafter more fully described.

The third part of my invention consists in applying the handle proper to the detachable lid and adapting said cam-lever for use as an independent handle for the heated iron when said lid is disengaged from the box, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a side elevation of my improved box smoothing-iron, the chimney of the same being turned toward the observer. Fig. 2 is a rear elevation of the iron. Fig. 3 is a horizontal section of the same at the line 7 7, the chimney being detached from the lid. Fig. 4 is a transverse section, looking toward the rear end of the iron, said section being taken at the line 8 8. Fig. 5 is an enlarged longitudinal section through one of the air-channels of the lid, the central portion of the latter being removed; and Fig. 6 is an enlarged transverse section of the lid and the upper part of the box or body.

A represents the bottom plate or base, B B' the walls or sides, and C the rear end of the body or box, of my smoothing-iron, said bottom being relatively much thicker than the walls, as more clearly shown in Fig. 4. Fitted within this box are strips D D', inclosing the customary flues E E', the rear portions of said flue-strips being perforated or slotted at d d' respectively, to admit air to the fuel at the back part of the iron, which air enters at the openings e e' of plate C. F is an adjusta-

ble damper or register for controlling the flow of air through said openings, the damper being furnished with a guiding-slot, f, and a handle, f'. e is a screw, and e' a thumb-nut for retaining said damper in any desired position.

Projecting laterally from the sides B B', and near the top of the same, are undercut lugs b b', wherewith are engaged the ribs or flanges g g' of the principal plate G of the detachable lid or cover of the iron. Furthermore, this plate has a raised central portion, H, extending from the chimney-collar T to the rear end of the iron. I I' are two longitudinal air-channels arranged alongside this raised portion of the plate G, and i i' are rabbets in said plate, as seen in Fig. 6. Fitting snugly within these rabbets, and resting upon the raised portion H, is a horizontal plate, J, above which, and parallel therewith, is another plate, J', sufficient space being left between these two members J J' to receive a filling, K, of cement, asbestos, plaster-of-paris, or any other suitable non-conductor. Large rivets or screws that retain said plates J J' in position.

Attached to the raised portion H by bolts m m' are standards M M', carrying a wooden handle, N, the rear standard, M', having a shackle or catch, O, that engages over the free end of a cam-lever, P, which lever is pivoted to a lug, Q, of the rear plate, C. This lever is provided with two cams, R R', bearing upon lugs S S' at the rear end of plate G; but, if preferred, a single cam and lug may be employed.

Applied to the neck or collar T, and adapted to revolve on the same, is a readily-detachable sheet-metal chimney, U, of any suitable size and shape, the upper or discharging end of said chimney being slanted or bent at V, as more clearly seen in Fig. 2.

Cast with plate G are longitudinal flanges or ribs, W W', that bear against the inner sides of walls B B', and thus prevent lateral shifting of the lid.

X is a wooden handle applied to cam-lever P. The operation of my iron is as follows: After the fuel has been placed in the box A B B' C and ignited in the usual manner, the lid is quickly secured in position by shoving it forward on said box, so as to cause the flanges g g' to engage with the lugs b b'. Lever P is

now brought to an erect position, thereby causing its cams R R' to bear against the lugs S S', after which act the shackle is engaged over the free end of said lever, so as to lock
 5 said lever in this erect position. As the lid is now securely clamped to the box both at front and rear, it is evident the former cannot warp or buckle and permit the escape of gas, neither can it be detached from said box until
 10 the shackle is purposely unhooked from the lever. The gas, therefore, can have its exit only at the chimney U, and as this chimney can be revolved around neck T, so as to turn the outlet V in any desired direction, it will
 15 be seen that the iron can be used without compelling the operator to inhale the injurious vapors resulting from the combustion of fuel in the box.

One position of the chimney is shown with
 20 heavy lines in Fig. 2, while the opposite position of the same is represented with dotted lines. This chimney being made of sheet metal, instead of being cast in the usual manner, is correspondingly light, and prevents the iron
 25 being top-heavy and otherwise inconvenient for use. Furthermore, said chimney is not riveted or fastened to the lid or body, and therefore it can be readily unshipped from collar T for cleaning out soot or to facilitate
 30 transportation of the iron.

While in use the vapors ascending in flue U induce currents of air through the channels I I', thus reducing the temperature of the lid G and preventing any uncomfortable radiation of heat against the operator's hand, which
 35 radiation is further guarded against by charging said lid with the non-conducting filling K.

When done with, shackle O is liberated from cam-lever P, and the latter is turned down
 40 until the lugs S S' are relieved from the pressure of eccentrics R R', after which act the lid

can be slid back and disengaged bodily from the box A B B' C, the wooden handle X enabling the tailor to carry the heated iron without being burned therewith.

I claim as my invention—

1. In combination with the body A B B' C of a box smoothing-iron and the detachable lid G thereof, secured to the front end of said body, as set forth, the pivoted cam-lever P Q, eccen-
 50 trics R R', and lugs S S', for locking the rear portion of said lid to the body, as herein described.

2. In combination with the body and detachable lid of a box smoothing-iron, united at
 55 their front ends, as herein described, the cam-lever P Q, eccentrics R R', lugs S S', and shackle O, which latter is coupled to the rear standard, M', of the handle proper, N, for the
 60 purpose stated.

3. A box smoothing-iron whose detachable lid is furnished with the handle proper, while the rear end of the iron has pivoted to it a lever, which serves the twofold purpose of a handle for the box when its lid is removed, and of
 65 clamping said lid to the box, as herein described.

4. In combination with the body A B B' C, having undercut lugs b b' at its upper edges, the detachable lid G, flanges g g', locking devices P Q R R' S S', and longitudinal ribs
 70 W W', which ribs project from the under side of said lid and fit snugly against the walls B B' when the iron is closed, as herein described.

In testimony of which invention I hereunto set my hand.

JOHN M. LOMASNEY.

Witnesses:

JAMES H. LAYMAN,
 GEORGE H. KOLKER.