(No Model.)

L. E. LANE.

STARCHING MACHINE.

No. 580,410. Patented Apr. 13, 1897.

Fig. 1.

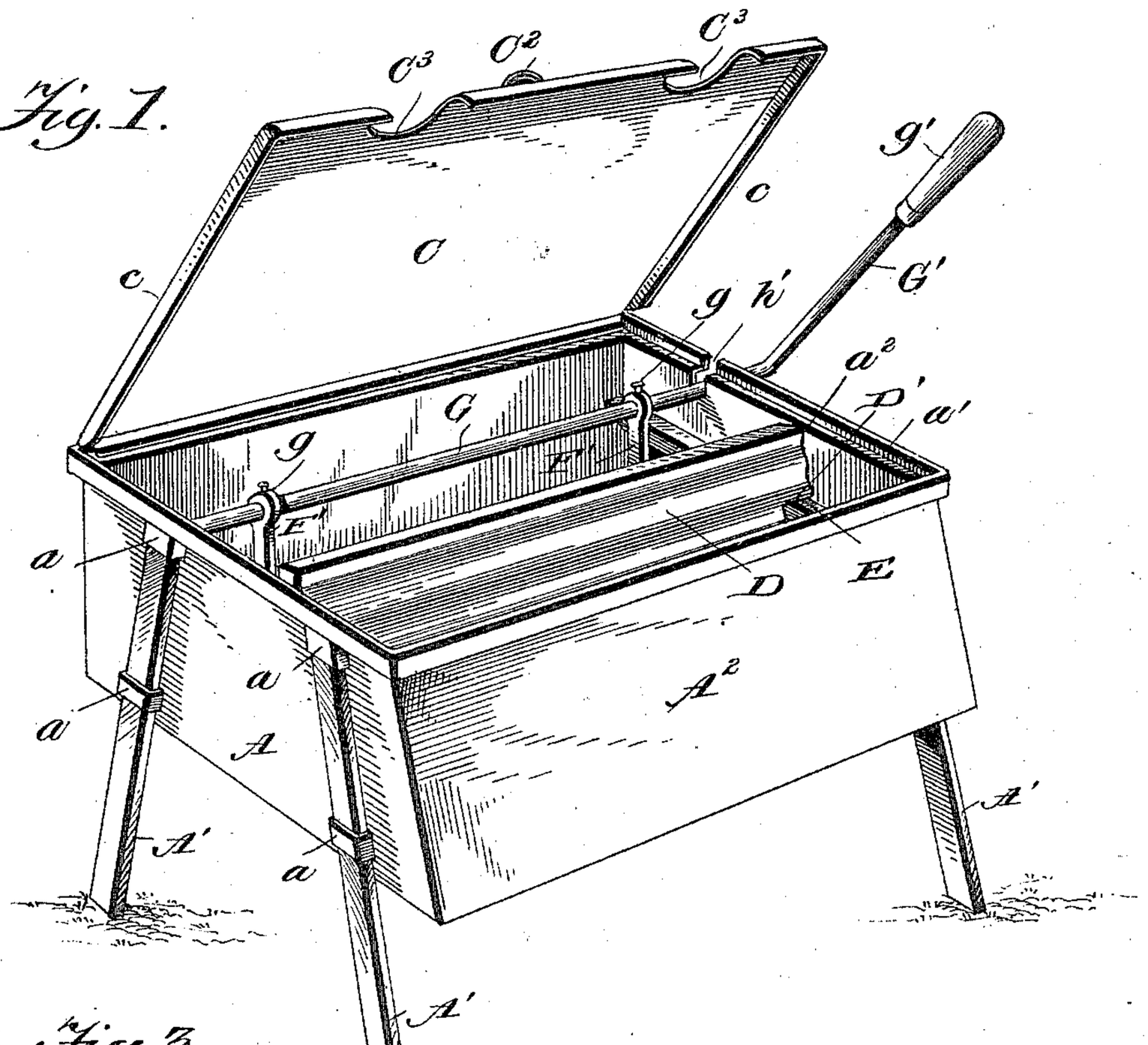


Fig. 3.

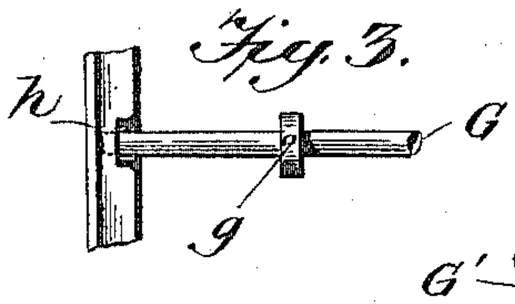
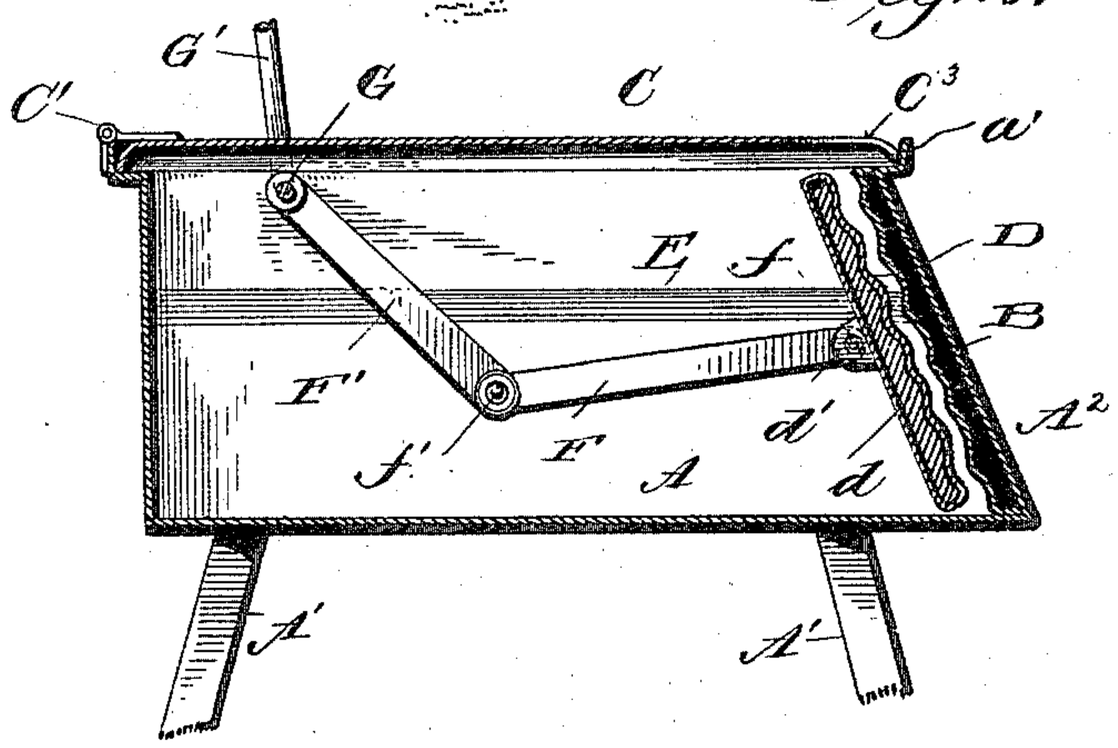


Fig. 2.



Witnesses
L. C. Hills.
E. A. Bond

Inventor
Lewis E. Lane,
by E. B. Stocking Atty.

UNITED STATES PATENT OFFICE.

LEWIS E. LANE, OF AUBURN, INDIANA.

STARCHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 580,410, dated April 13, 1897.

Application filed January 15, 1896. Serial No. 575,649. (No model.)

To all whom it may concern:

Be it known that I, LEWIS E. LANE, a citizen of the United States, residing at Auburn, in the county of De Kalb, State of Indiana, have invented certain new and useful Improvements in Starching-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in starching-machines, and it is designed, primarily, for use in starching shirts, although of course the invention is not restricted to such use.

It has for its object, among others, to provide a simple and cheap machine for this purpose by which the starch is applied to and forced into the shirts by squeezing or spattering, thereby enabling one to starch old as well as new work without injury to the same. I also so construct the machine as to prevent the starch from spattering out during the operation of the machine. The dasher or pounder, together with its actuating mechanism, are removably inserted within the box or starch-receptacle, and the dasher or pounder is mounted to move upon suitable guides and is adapted to coöperate with a corrugated plate or board at the front side of the machine, which is inclined outward from its upper edge toward the lower, so as to prevent the starch from being splashed out as the pounder and corrugated board are brought together.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claim.

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

Figure 1 is a perspective view of my starching-machine with the cover thrown open. Fig. 2 is a vertical section from front to rear with the cover closed; and Fig. 3 is a detail in top plan, showing the removably-supported inner end of the shaft forming a part of the actuating mechanism.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the box or body of the machine, which may be of any suitable material, either wood or metal or a combination of the two, and adapted to be supported in any suitable position in any convenient manner. In this instance it is shown as supported upon the legs A′, which may be removably held in suitable sockets or analogous means *a*, as shown in Fig. 1, or otherwise. The manner of supporting the box or receptacle is non-essential. The front side A^2 of the box is inclined from its upper edge downward and outward, as seen in Figs. 1 and 2, so that the starch will not be spattered out at the front as the plunger or pounder is actuated. At this front side of the machine, upon the interior thereof, is arranged a corrugated rubbing-board B, or it may be of metal, suitably fixed therein and having its inner or acting face inclined and substantially parallel with the inclined outer side, although it is evident that the said board or plate may be inclined, as shown, and the front wall or side of the box remain vertical, the result being substantially the same. The top edge of the box or receptacle is provided with a surrounding flange *a′*, leaving the horizontal shoulder a^2, onto which is designed to rest the depending flange *c* of the cover or lid C, which is hinged at its rear edge upon suitable hinges C′, so arranged that when the cover is closed it fits within the surrounding flange at the top of the box or receptacle and its upper face substantially on a plane with the upper edge of said flange. The cover or lid may be provided with a suitable handle or knob C^2, also with substantially semicircular openings C^3 for the escape of the air as the plunger or pounder is actuated, and also providing for the introduction of the clothes without the removal of the cover, if desired.

D is the plunger or pounder, having its acting face corrugated, as seen in Figs. 1 and 2, and arranged at an inclination from a perpendicular, as shown, so as to be parallel with the corrugated board or plate B. This dasher or plunger may be constructed in any suitable way, in this instance being shown as formed of corrugated sheet metal surrounding a suitable wooden base *d*, but it is evident that this base may be omitted, or that the dasher or pounder may be composed entirely of wood, provided with the corrugations, and

it is intended that this application shall cover these various forms. The dasher or pounder at opposite ends is provided with offsets or shoulders D′, as seen best in Fig. 1, which are adapted to ride upon the guide-strips E, arranged upon the inner faces of opposite ends of the box or receptacle, so that the dasher or pounder may be caused to move in a prescribed path. To the rear side of the plunger or pounder are lugs or ears d', to which are pivotally secured, as at f, the arms F, the other ends of which are pivotally connected, as at f', with the arms F′, the upper ends of which are sleeved upon the shaft G, as seen in Figs. 1 and 2, and which may be adjustably and detachably held thereon by means of screws or analogous means g. This shaft has its inner end supported in a bearing or socket h, formed in the end wall of the box, and the said rod or shaft, near its other end, is received in the open-ended slot h' in the end of the box or receptacle, and is then bent at substantially a right angle, as seen at G′ in Fig. 1, and provided with a suitable handle g', by which it may be manipulated.

In practice the starch is placed within the receptacle or box in a heated condition, or suitable means may be provided for keeping it sufficiently heated while within the box, and the handle of the operating mechanism being moved so as to throw the dasher or plunger away from the corrugated board or plate B the shirts are placed between the same and the pounder, and then, as the latter is caused to be reciprocated back and forth within the box by manipulation of the handle, the starch is squeezed and forced into the shirt without injury thereto. When desired, for cleaning or other purposes, the pounder or shaft G and the connecting-arms and operating mechanism may be all removed together from the box by lifting up the outer end of the shaft from its slot h' and then moving the same endwise so as to disengage the other end of the shaft from its socket or bearing h and the whole removed.

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

What is claimed as new is—

The combination with the box having an inclined front face, of the corrugated rubbing-board having its inner face inclined parallel with the inclined face of the box, a pounder having an inclined corrugated acting face and having offsets or shoulders at the ends, guides upon the inner face of the ends of the box on which said offsets move, a shaft removably inserted from the upper edge of the box, a handle connected with and extending to the shaft, arms depending from said shaft, and arms pivotally connected at one end with the lower ends of said depending arms, and at the other end pivotally connected to the rear of the pounder; substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

LEWIS E. LANE.

Witnesses:
JOSEPH E. ENSLEY,
T. A. CARTER.