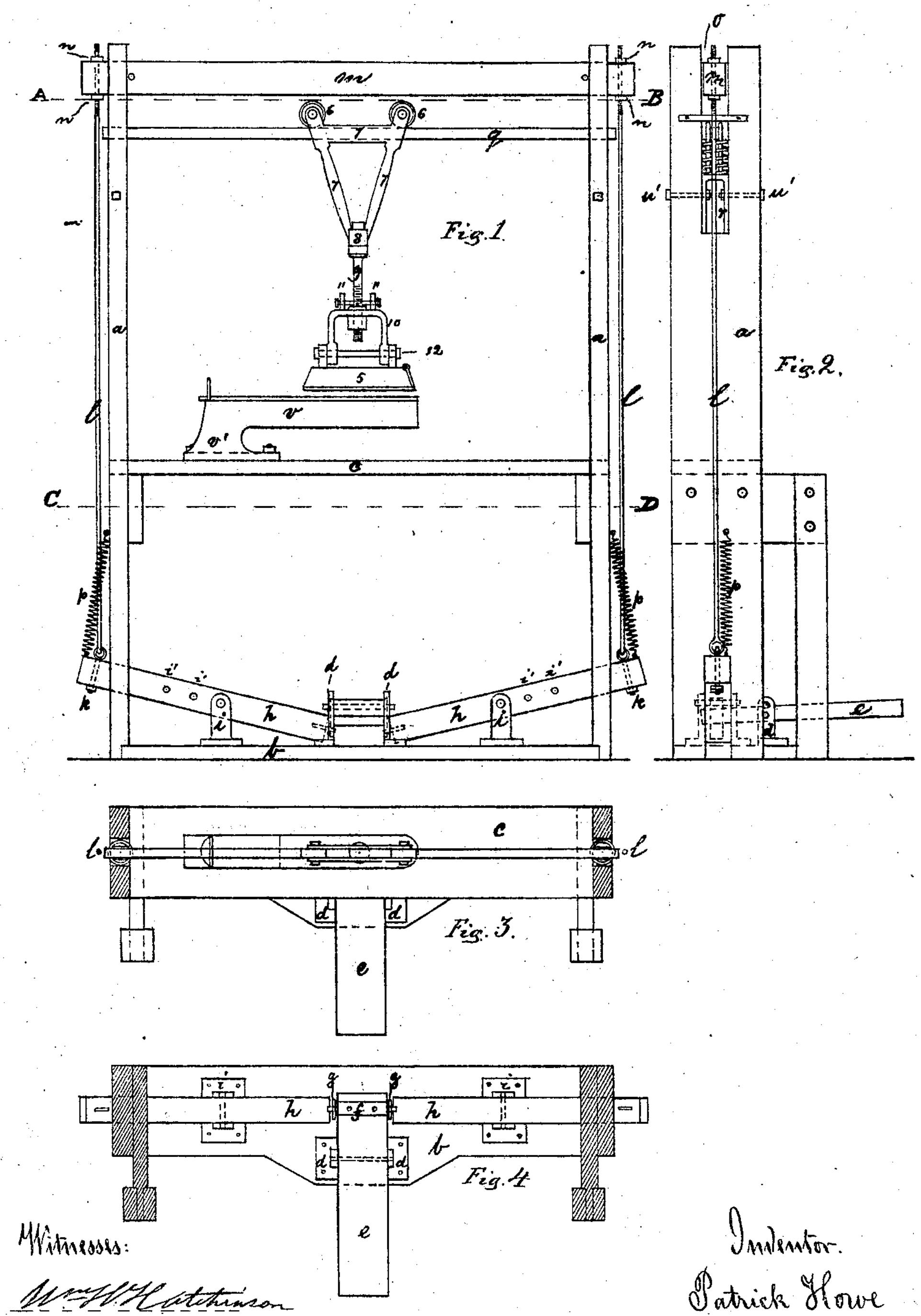
PATRICK HOWE.

Improvement in Cloth-Pressing Machines.

No. 116,057. Patented June 20, 1871.



Witnesses:

Wm. W. Hutchinson

John H. Symonds.

Inventor.

Patrick Howe

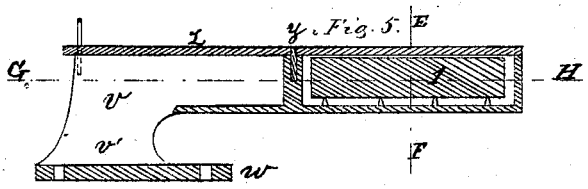
by A. Vanandrien his atty

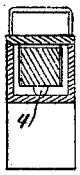
2 Sheets--Sheet 2.

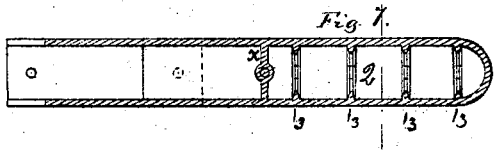
PATRICK HOWE.

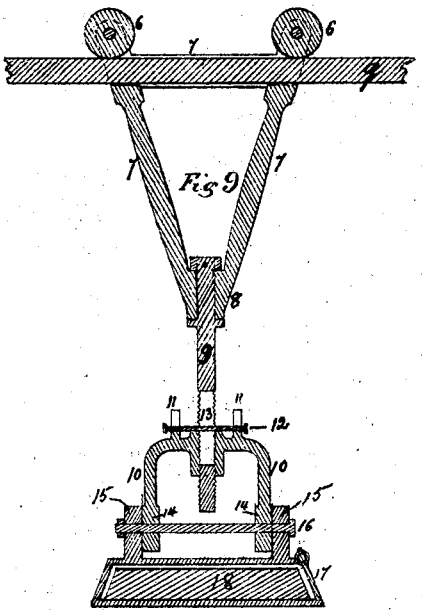
Improvement in Cloth-Pressing Machines.

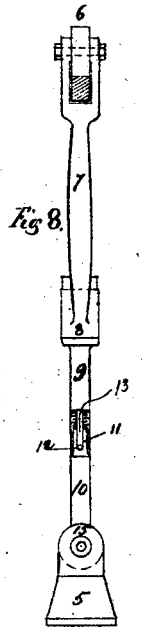
No. 116,057. Patented June 20, 1871.

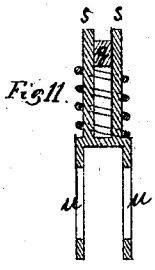


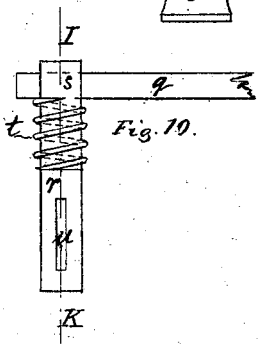












Witnesses:

Wm. H. Hutchinson

Johnson H. Symonds

Inventor:

Patrick Howe.

by Munn & Co his attys.

UNITED STATES PATENT OFFICE.

PATRICK HOWE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN CLOTH-PRESSING MACHINES.

Specification forming part of Letters Patent No. 116,057, dated June 20, 1871.

To all whom it may concern:

Be it known that I, PATRICK HOWE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements on Clothing-Manufacturers' Pressing-Machines, of which the following is a specification:

Nature and Objects of the Invention.

The nature of my invention relates to improvements on machines for pressing clothing, and especially to the construction and arrangement of the treadle and levers, the hanging of the box-iron, and the raising and lowering of the same, the improved construction of the press-board, and the arrangement for raising and lowering the rail that supports the box-iron, as will now be fully shown and described.

On the drawing, Sheet 1 exhibits different views and sections of my improved pressing-machine, and Sheet 2 exhibits enlarged views and sections of details of the same. Figure 1 is a front elevation of the presser. Fig. 2 is a side view. Fig. 3 is a transverse section over the line A B taken on Fig. 1, and Fig. 4 is a transverse section over the line C D also taken on Fig. 1. Fig. 5 is an enlarged longitudinal section of the press-board. Fig. 6 is a transverse section over the line E F taken on Fig. 5. Fig. 7 is a section over the line G H taken on Fig. 5, as shown, without the heating-iron 1. Fig. 8 is an enlarged end view of the box-iron and its connections. Fig. 9 is a central longitudinal section of the same. Fig. 10 is an enlarged side view of the bearing for rail *q*. Fig. 11 is a longitudinal section over the line I K taken on Fig. 10, and Fig. 12 is a ground plan of Fig. 10.

Similar letters refer to similar parts wherever they occur on the drawing.

a a are two uprights, connected together at the bottom by means of the board *b*, as shown. The frames *a a* are also held together by means of the brace and table *c*, at a suitable distance from the floor. Onto the board *b* are attached two bearings, *d d*, forming a support and fulcrum, around which the treadle *e* is operated. The bearings *d d* are provided with a number of holes, as shown in Fig. 2, whereby the treadle *e* can be raised or lowered for the purpose of obtaining more or less travel of the same, as may be desired. The treadle *e* has attached to its rear end a metallic cross-bar, *f*, provided in each end with pins, as shown. Straps *g g* connect the rear end of the treadle *e* with similar pins in the extreme ends of the levers *h h*. The levers *h h* are made to turn around the fulcrums *i i*, and are also provided with a number of holes, *i' i' i' i'*, whereby the leverage can be altered and adjusted by moving the fulcrums *i i* to a corresponding hole, *i' i'*, as may be needed. To the extreme outer ends of the levers *h h* are attached eyebolts *k k*, to which are connected the upright rods *l l*, as shown. The upper ends of said connecting-rods *l l* project through the beam *m*, and are provided with nuts *n n* above and below said beam, whereby the length of the connecting-rods *l l* can easily be adjusted. The beam *m* is guided in slots *o* in the frame *a a*. From this will be understood that, by pushing the outer end of the treadle *e* downward, the levers *h h* are rocked around the fulcrums *i i*, when the outer ends of said levers pull down the connecting-rods *l l*, and with them the pressing-beam *m*, as fully shown on the drawing. The outer ends of the levers *h h* are drawn upward, and with them the rods *l l* and beam *m*, by means of the coiled springs *p p*, as soon as the operator lifts his or her foot from the treadle *e*. Directly under the beam *m* is the metallic rail *q*, suspended. The ends of said rail rest in forked bearings *r r*, as shown in detail in Figs. 10, 11, and 12. The upper parts *s s* of said bearings are surrounded with a coiled spring, *t*, on which the rail *q* is resting. The object of having the ends of the rail *q* resting on said coiled springs *t t* is so as to allow the rail *q* to adjust itself automatically in either end when it is pressed down. The lower parts of the bearings *r r* are also forked, and provided with slot-holes *u u*, through which the bolts *u' u'* project, and by which means the bearings *r r* are bolted to the frames *a a*, as shown. The object of the slot-holes *u u* is to be able to raise or lower the bearings *r r*, and with them the rail *q*, to any position desired. On the table *c* is secured the press-board *v*, shown in enlarged views on Figs. 5, 6, and 7. The advantage over others of this kind is mainly that I do not employ any central support on my press-board, but have instead a strong bracket, *v'*, cast onto a sole, *w*, provided with bolt-holes, by which, and bolts going through the table *c*, the press-

board *v* is firmly held onto the said table *c*. By dispensing with a central support, as formerly used, I have a better access for my work, and can put the sleeve of a coat or similar part to be pressed very easiby on the press-board. In the middle of the press-board is a division wall, *x*, through which a pin, *y*, is inserted. The pin *y* projects through a hole in the plate or cover *z*, which cover is movable around said pin when it is needed to push it to one side for the purpose of placing or replacing the heating-iron 1 in the box 2 when required. The box 2 is provided on the inside with a number of projecting ribs, 3 3 3 3, for the purpose of preventing the heating-iron 1 coming too near the walls of said box, and also for the purpose of giving free access to the circulation of air around the heating-iron, so as to keep the sides and bottom tolerably cold, but conducting the heat upward to the cover *z*, being in as close a connection as possible to the said cover. The ribs 3 3 3 3 do not connect with the opposite side, but are broken off in the middle, as shown at 4, Fig. 6. The object of this is to get circulation of air under the heating-iron 1, so as to keep the bottom of the box 2 as cool as possible.

Figs. 8 and 9 show the box-iron 5 and its connection with the rail *q*. Two rollers, 6 6, are movable in bearings attached to a triangular frame, 7 7 7, in a manner as shown. The two legs of the triangular frame 7 are connected together at the lower end by the hub 8, through which a perpendicular hole is bored. The bolt 9 projects through said hole in the frame 7, and is provided with a collar on the under side and a nut or head on the upper end, by which arrangement the bolt 9 may be turned around its center. The lower end of the bolt 9 is provided with a screw-thread and screwed into a hub attached to the forked handle 10, as shown. On the upper side of the handle 10 are two small forked bearings, 11 11, in which the pin 12 is made to rest. The pin 12 projects through a slot-hole, 13, in the bolt 9, by which arrangement the handle 10 and the box-iron 5 are prevented from turning around the bolt 9. When it is desired to raise or lower the box-iron 5 I simply raise the pin 12 up from the forked bearings 11 11, when the handle 10 may be turned in any direction around the bolt 9, and, when raised or lowered to the position desired, may be held firmly in place by dropping the pin 12 into its bearings 11 11, as described. The handles 10 10 are provided with eyes 14 14, as shown. Similar eyes 15 15 are cast to the upper part of the box-iron 5, and a hinge-pin, 15, put through them, whereby the box-iron is hung to the handle 10, and thus made to swing and adjust itself to any unevenness of the fabric that is to be pressed. The box-iron is provided with a door, 17, and a heating-iron, 18, in the usual way.

The operation of my machine is as follows: After the heating-irons 1 and 18 are put in their respective places and the fabric to be pressed is placed on the press-board *v*, I slide the box-iron 5 to a position as shown in Fig. 1, and by stepping on the forward end of the treadle *e* the connection-rods *l l* and the beam *m* are drawn downward. The beam *m* presses on the upper part of the rollers 6 6 that rest upon the rail *q*. The rail *q*, resting upon the spiral springs *t t*, is thus also pressed down, and the box-iron is in this manner pressed down very powerfully on the fabric resting on the press-board *v*. When the fabric is pressed I relieve my foot from the treadle *e*, when the conjoint action of the spiral springs *p p* and *t t* lifts the beam *m*, rail *q*, and box-iron *v* up, as shown in Fig. 1. After the box-iron is rolled to one side and the fabric removed I again proceed with the pressing of another piece in a similar manner.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. The arrangement of the adjustable treadle *e*, bearings *d d*, levers *h h*, and bearings *i i*, and spiral springs *p p*, for the purpose set forth.

2. The construction of the bearings *r r* for the rail *q*, consisting of the forked blades with the slot-holes *u u* and projections *s s*, surrounded by the spiral spring *t*, in a manner and for the purpose described.

3. The press-board *v*, having one single support, *v'*, and provided on the inside with the ribs 3 3 3 3 and air-spaces 4 4 4 4, for the purpose set forth.

4. The construction and arrangement of the screw-threaded bolt 9, provided with the slot-hole 13, in combination with the handle 10 and the forked bearings 11 11, in a manner set forth and for the purpose described.

5. The triangular frame 7 7 7, in combination with the rollers 6 6, hub 8, and bolt 9, for the purpose set forth.

PATRICK HOWE.

Witnesses:

ALBAN ANDRÉN,

WM. H. HUTCHINSON.